

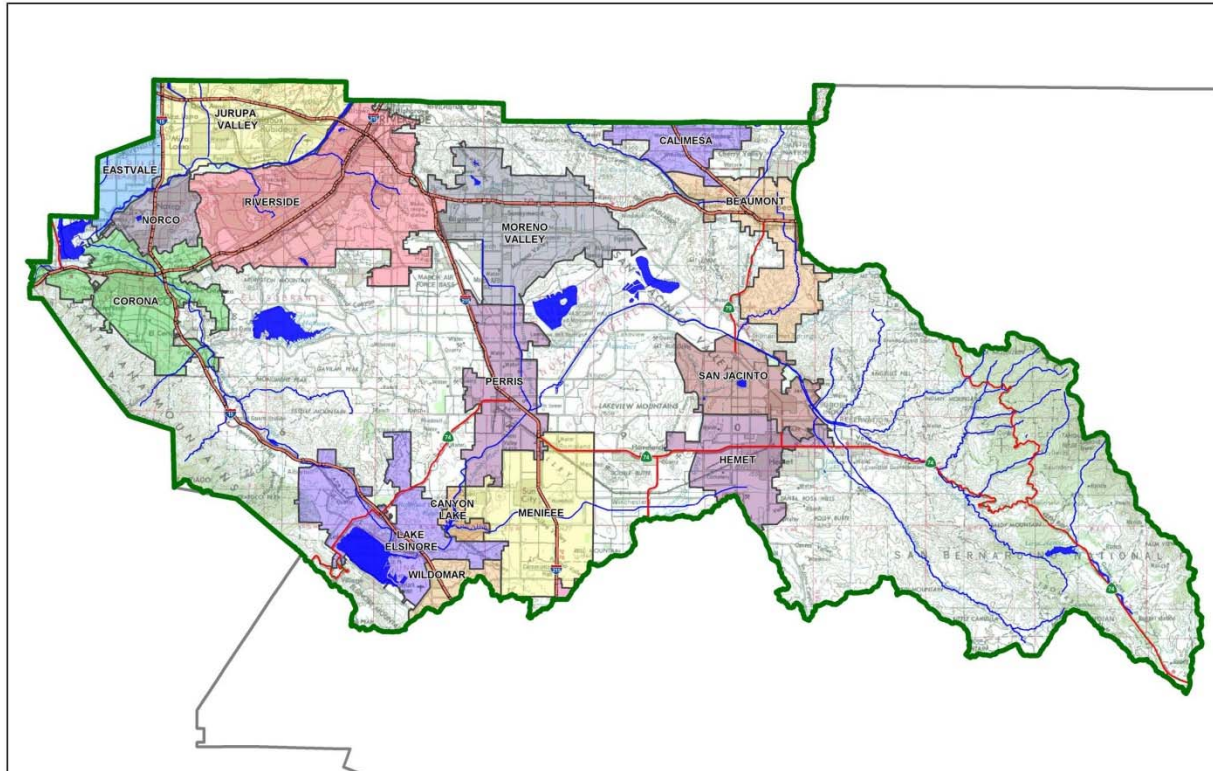
Project Specific Water Quality Management Plan

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

Project Title: MR 56 Commercial Site

Development No: 2017-226CUP

Design Review/Case No: Preliminary



- ☒ Preliminary
☐ Final

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*Prepared for Compliance with
Regional Board Order No. **R8-2010-0033***

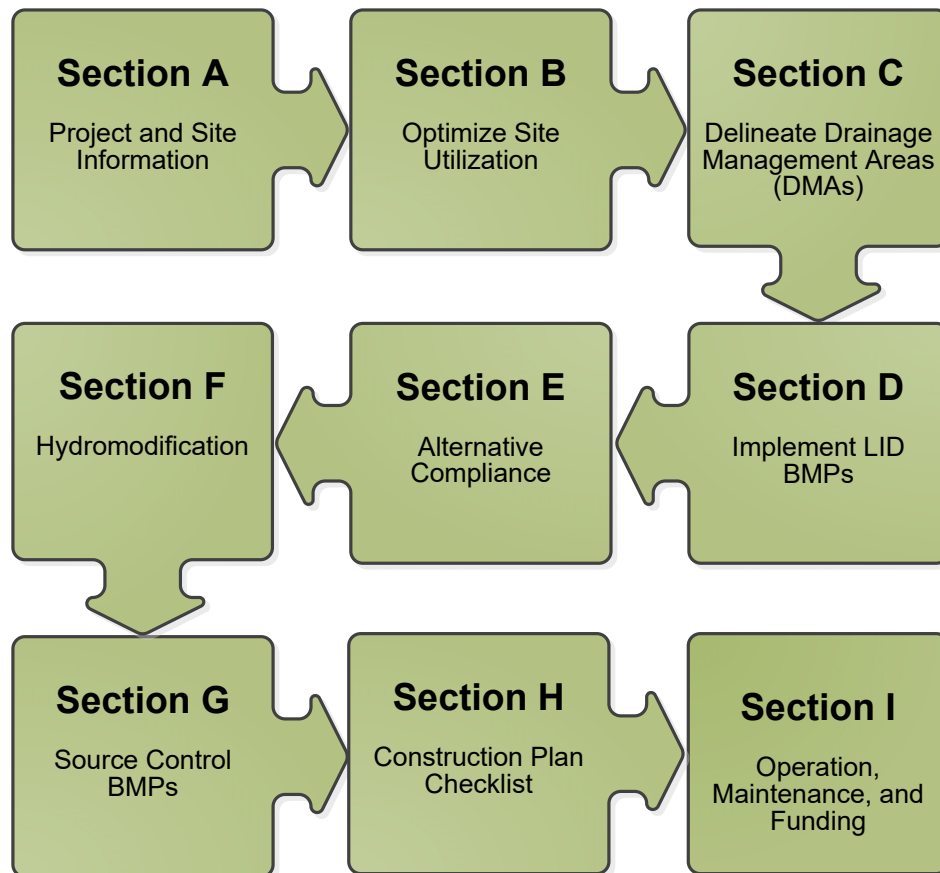
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A Brief Introduction

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 Briggs & 74 LLC by JLC Engineering for the MR 56 Commercial Site project.

This WQMP is intended to comply with the requirements of the City of Menifee and the County of Riverside for Ordinance No. 754.2 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 The County of Riverside Water Quality Ordinance (Municipal Code Section 754.2).

"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."



July 31, 2017

Preparer's Signature

Date

Joseph L. Castaneda

P.E. / Project Manager

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
Planning Area:	N/A
Community Name:	N/A
Development Name:	MR 56 Commercial Site
PROJECT LOCATION	
Latitude & Longitude (DMS): 33°44'38"N, 117°08'14"W	
Project Watershed and Sub-Watershed: Santa Ana Watershed, San Jacinto River Sub-Watershed	
APN(s): Portions of 327-320-013	
Map Book and Page No.: Book 327, Page 32	
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Commercial
Proposed or Potential SIC Code(s)	5331, 5541, 5812
Total Area of Project Footprint (SF)	269,520 sq. ft. (tributary to BMPs) 418,176 sq. ft. (tributary to interim basin)
Total Area of <u>proposed</u> Impervious Surfaces within the Project Footprint (SF)/or Replacement	242,568 sq. ft.
Does the project consist of offsite road improvements?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Does the project propose to construct unpaved roads?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Is the project part of a larger common plan of development (phased project)?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
EXISTING SITE CHARACTERISTICS	
Total area of <u>existing</u> Impervious Surfaces within the project Footprint (SF)	0
Is the project located within any MSHCP Criteria Cell?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
If so, identify the Cell number:	N/A
Are there any natural hydrologic features on the project site?	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N
Is a Geotechnical Report attached?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	A/C
What is the Water Quality Design Storm Depth for the project?	0.65

A.1 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

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.2 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
Romoland MDP - Line A-5	N/A	N/A	Not a RARE-designated water body
Romoland MDP - Line A	N/A	N/A	Not a RARE-designated water body
San Jacinto River – Reach 3	N/A	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not a RARE-designated water body
Canyon Lake (San Jacinto River – Reach 2)	Nutrients, Pathogens	MUN, AGR, GWR, REC1, REC2, WAR, WILD	Not a RARE-designated water body
San Jacinto River – Reach 1	N/A	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not a RARE-designated water body
Lake Elsinore	Metals (Mercury), Nutrients, Organic Enrichment/Low Dissolved Oxygen, Polychlorinated biphenyls, Sediment Toxicity, Sedimentation/Siltation, Unknown Toxicity	REC1, REC2, WARM, WILD	Not a RARE-designated water body

Table A.2 Identification of Susceptibility to Hydromodification

Drainage System	Drainage System Material	Susceptibility of Drainage System	Hydromodification Exemption
Natural flow path	Natural ground cover	Susceptible	N/A
Romoland MDP – Line A-5	Reinforced Concrete Pipe	Not Susceptible	Engineered, Hardened and Maintained
Romoland MDP – Line A	Reinforced Concrete Pipe	Not Susceptible	Engineered, Hardened and Maintained
San Jacinto River	Large River	Not Susceptible	Engineered and Maintained

Drainage System	Drainage System Material	Susceptibility of Drainage System	Hydromodification Exemption
Canyon Lake	Lake	Not Susceptible	Engineered and Maintained

A.3 Additional Permits/Approvals required for the Project:

Table A.3 Other Applicable Permits

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

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?

Project site drains from the east to west, and these flow patterns are preserved.

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

The project site does not protect existing vegetation. The project includes approximately 8 acres of area, which includes offsite street area. None of this area will preserve existing vegetation.

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

Infiltration Testing for the project site was performed and the rates were determined to be less than 0.05 in/hr, which is considered significantly low. Therefore infiltration capacity is not preserved.

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

The project minimized the impervious surface to the maximum extent practicable.

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

The project site will discharge into bioretention basins prior to discharging into the storm drain systems.

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	Area (Sq. Ft.)	DMA Type
DMA A	Roof/Concrete, Asphalt, Landscape	150,853	Type D
DMA B	Roof/Concrete, Asphalt, Landscape	27,878	Type D
DMA C	Asphalt/Concrete, Landscape	121,532	Type D
DMA D	Asphalt/Concrete, Landscape	5,032	Type B & Type C

¹Reference Table 2-1 in the WQMP Guidance Document to populate this column

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

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)

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]
DMA D-1	Natural/drought tolerant landscaping	2,634.57	0.65	DMA D-2	5032	1.89

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

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	Runoff factor	Product	DMA name /ID	Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]		[D]	[C]/[D]
DMA D-2	5032	Street	1.0	5032	DMA D-1	2,634.57	1.91

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

DMA Name or ID	BMP Name or ID
DMA A	Bioretention Basin A
DMA B	Bioretention Basin A
DMA C	Bioretention Basin B

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. 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 Copermitttee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permitttee, 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: A, B, C, and D		
...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.

Based upon the percolation tests and porchet conversions included in Appendix 3, the site has infiltration rates less than 0.05 in/hr, which are too low for infiltration based BMPs.

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 neither 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: 0.62 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: 5.57 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: 5.85

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)
5.85	0.62

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: 100

Project Type: Commercial

- 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: 5.57

- Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-1 in Chapter 2 to determine the minimum number of toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: 141

- 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: 785

- 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)
785	100

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 2-3 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-3: N/A

- Step 4: Multiply the unit value obtained from Step 4 by the total of impervious areas from Step 3 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 Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (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, unless a site-specific analysis has been completed that demonstrates technical infeasibility as noted in D.3 below.

Based upon the analyses, the project does not have sufficient landscaped area to be required to consider harvest and use BMPs.

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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DMA B	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DMA C	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DMA D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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.

The project site is a proposed commercial development located in the City of Menifee. The project will construct 2 bioretention basins that will be utilized for water quality treatment, and a large interim basin that will be utilized for addressing the hydrologic conditions of concern. The project site will also incorporate an area of self-retaining landscaping/pervious cover. Self-retaining areas are considered micro infiltration areas, therefore this DMA was checked as “infiltration” in the table above. The interim basin will be constructed on the westerly side of the project, which is a future development of the project. The project site is constructing the interim basin until such a time when the Line A-5 master drainage plan facility is constructed. Once the Line A-5 system is constructed, then the project site will not be required to address the hydrologic conditions of concern due to the conveyances being engineered and maintained from the project site to Canyon Lake.

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	Bioretention Basin A		
	[A]		[B]	[C]	[A] x [C]			
A-1	135767.511	Concrete or Asphalt	1	0.89	121104.6	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
A-2	15085.28	Turf block	0.1	0.11	1666.3			
	150852.79				122770.9	0.65	6650.1	8,138

[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

Table D.4 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	Bioretention Basin A		
	[A]		[B]	[C]	[A] x [C]			
B-1	25090.56	Concrete or Asphalt	1	0.89	22380.8	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
B-2	2787.84	Turf block	0.1	0.11	307.90			
	27878.4				22688.7	0.65	1229	8,138

[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

Table D.5 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	<i>Bioretention Basin B</i>		
	[A]		[B]	[C]	[A] x [C]			
C-1	103733.307	Concrete or Asphalt	1	0.89	92530.1	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
C-2	11525.92	Turf block	0.1	0.11	1273.1			
C-3	6273.17	Ornamental Landscaping	0.10	0.11	673.6			
	121532.4				94496.1	0.65	5118.5	5,292

[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

The required water quality volume to be treated was determined using the Santa Ana BMP Design Volume Spreadsheet. The rainfall depth utilized was 0.65 inches, and was obtained from the Isohyetal Map for the 85th Percentile 24-hour Storm Event (included in Appendix 6). Since the project site is a commercial site and street area, it is assumed that the project is 90% impervious, which is a conservative assumptions considering the project site includes 2 bioretention basins, on top of the commercial site. Bioretention Basin B was analyzed as pervious since it is separated from DMA C.

The project site will utilize two bioretention basins with soil media depths of 2.5 feet (due to the availability of cover and the site elevations) for Bioretention Basin A and 3 feet for Bioretention Basin B. Flows will then be conveyed to the interim basin that will mitigate for the hydrologic conditions of concern. This basin is required until such a time when the MDP Line A-5 system is completed, which will then allow for the project to discharge directly into the Line A system, and be conveyed via engineered and maintained channels to Canyon Lake. Additionally, a water quality BMP or mechanism will be required for the DMA D that drains to the basin, which is an area draining to a self-retaining area. However, during this phase of the development, the Line A-5 system is not being constructed, therefore addressing the hydrologic conditions of concern is required.

The bioretention basins were sized using the average top width and the Santa Ana Watershed Bioretention Design Worksheets. An additional spreadsheet for irregular surface areas was utilized, since the basins has varying top widths. Both spreadsheets indicate that the basins are adequately sized. Bioretention Basin A utilizes 30" of soil media, which is to ensure that the flows discharging from the underdrains will be able to enter the interim basin, and Bioretention B utilizes 36" of soil media. The interim basin invert is 1513, and the basins have tops of soils of 1518 and 1521.5, respectively. Both Bioretentions provide a total of 1 foot of depth, which includes 0.5 feet of depth for the water quality volume, and 0.5 feet of depth to allow the 100-year flow rate to discharge from the basin. Detailed outlet

structure analyses will be performed during final engineering, however, the design as proposed will be sufficient to function from a water quality perspective and a 100-year outflow perspective.

The bioretention basins incorporate 4:1 side slopes within the first 0.5 feet of depth (where the water quality volume will pond) and incorporates 2:1 side slopes above the 0.5 feet of depth.

DMA A and B will drain to Bioretention Basin A, and DMA C will drain to Bioretention Basin B. This is to ensure that onsite and offsite flows do not comingle.

It should be noted that the westerly side of the west access street and the westerly portion of the Highway 74 improvements will be treated once the westerly side of the project is developed. It was not feasible to intercept these street improvements due to the site grades and existing grades, however, these areas will be treated with the westerly phase of the project site when the interim basin is removed. Additionally, the entire tributary area of the east side of Briggs Road will be intercepted in Bioretention Basin B and treated for water quality purposes. The required area within Highway 74 and Briggs Road that is required to be treated is 121,569 sq. ft. and the total treated area from Briggs Road is 115,529 sq. ft. Even though this is slightly less in the current condition (by approximately 6,000 sq. ft.), when the westerly portion of the project site is developed and intercepts flows within Highway 74, the overall easterly and westerly development will be treating more than the required area. However, the project is treating as much street area as feasible.

DMA D is a small portion of onsite area that cannot be treated within either Bioretention Basin. Therefore, this area will drain into a landscaped buffer area that will be designated as a self-retaining area. The required retention depth is 1.89 inches, therefore the landscaped area will be depressed approximately 2" to provide the required depth. Flows will then overtop into the adjacent interim basin.

Detailed plans and elevations will be provided during final engineering. The designs will function and are sufficient for preliminary purposes.

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 Copermitttee). 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-Permitttee 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
<input type="checkbox"/> Detached Residential Development	P	N	P	P	N	P	P	P
<input type="checkbox"/> Attached Residential Development	P	N	P	P	N	P	P	P ⁽²⁾
<input type="checkbox"/> Commercial/Industrial Development	P ⁽³⁾	P	P ⁽¹⁾	P ⁽¹⁾	P ⁽⁵⁾	P ⁽¹⁾	P	P
<input type="checkbox"/> Automotive Repair Shops	N	P	N	N	P ^(4, 5)	N	P	P
<input type="checkbox"/> Restaurants (>5,000 ft ²)	P	N	N	N	N	N	P	P
<input type="checkbox"/> Hillside Development (>5,000 ft ²)	P	N	P	P	N	P	P	P
<input type="checkbox"/> Parking Lots (>5,000 ft ²)	P ⁽⁶⁾	P	P ⁽¹⁾	P ⁽¹⁾	P ⁽⁴⁾	P ⁽¹⁾	P	P
<input type="checkbox"/> Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	N/A
<i>Total Credit Percentage¹</i>	

¹Cannot Exceed 50%

²Obtain corresponding data from Table 3-8 in the WOMP 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

[illegible]

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

[E] is 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

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 concentration¹ 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	N/A	N/A
Volume (Cubic Feet)	N/A	N/A	N/A

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 Sensitivity 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.

Since the proposed Line A-5 MDP Storm drain system has not yet been constructed, the project site is required to construct an interim basin that will address the hydrologic conditions of concern. This basin is only required until the Line A-5 system is constructed, since this will provide an engineered and maintained flow path from the project site to Canyon Lake.

During the preliminary stages, 2-year 24-hour unit hydrograph calculations were performed to determine the pre-project flow rate and the post-project volume generated. The pre-project flow rate for the 2-year, 24-hour storm duration is 0.42 ft³/s, and the post-project 2-year, 24-hour volume generated for the total 9.6 acres tributary (see Figure 4 for watershed boundary) is 0.79 ac-ft. The total basin storage volume (while providing 1 foot of freeboard) is 2.93 ac-ft, which is more than sufficient to store the entire 2-year, 24-hour volume in its entirety. During final engineering, detailed basin routing will be provided to demonstrate that the outflow will not exceed the pre-project flow rate, however, during the preliminary stages, providing enough volume to store the entire post-project volume insures that the flows discharging can be reduced to pre-project levels or less.

The watershed area tributary to the interim basin is larger than the area tributary to the bioretention basins because it includes the existing offsite area to the north of the project site.

The unit hydrograph calculations and basin storage volume table has been included in Appendix 7.

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	<ul style="list-style-type: none"> Mark all inlets with “Only Rain Down the Storm Drain” or similar. Catch Basin Markers may be available from RCFC & WCD. 	<ul style="list-style-type: none"> Maintain & periodically repaint or replace inlet markings 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 the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com Include the following in lease agreements: “Tenant 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”

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
B. Interior floor drains and elevator shaft pumps	<ul style="list-style-type: none"> Interior floor drains will be plumbed to sanitary sewer. 	<ul style="list-style-type: none"> Inspect and maintain drains to prevent blockages and overflows.
D1. Need for future indoor & Outdoor Pesticide Use	<ul style="list-style-type: none"> Building design features will be implemented that discourage entry of pests. 	<ul style="list-style-type: none"> Provide Integrated Pest Management information to owners, lessees, and operators.
D2. Landscape/ Outdoor Pesticide Use	<p>Final landscape plans will accomplish the following:</p> <ul style="list-style-type: none"> Design landscaping to minimize irrigation & runoff and to minimize the use of fertilizers & pesticides that can contribute to stormwater pollution Consider using pest-resistant plants, especially adjacent to hardscape <p>To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, & plant interactions.</p>	<ul style="list-style-type: none"> Maintain landscaping using minimum or no pesticides See applicable operational BMPs in “What you should know.....Landscape and Gardening” at http://rcflood.org/stormwater/ Provide IPM information to new owners, lessees and operators
F. Food Service	<ul style="list-style-type: none"> Describe the location and features of the designated cleaning area. Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated. 	<ul style="list-style-type: none"> See the brochure, “The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries” at http://rcflood.org/stormwater <p>Provide this brochure to new site owners lessees, and operators.</p>
G. Refuse Areas	<ul style="list-style-type: none"> Refuse will be maintained by a private contractor at a minimum of once per week. Signs will be posted on or near dumpsters with the words “Do not dump hazardous materials here” or similar. 	<ul style="list-style-type: none"> Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. 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, “Waste Handling and Disposal” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com.

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
I. Outdoor storage of equipment or materials	<ul style="list-style-type: none"> Detailed description of materials to be stored and location of storage areas will be provided during final engineering when the exact locations have been determined. 	<ul style="list-style-type: none"> See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com.
L. Fuel Dispensing Areas		<ul style="list-style-type: none"> The property owner shall dry sweep the fueling area routinely. See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
N. Fire Sprinkler Test Water	<ul style="list-style-type: none"> Provide a means to drain fire sprinkler test water to the sanitary sewer. 	<ul style="list-style-type: none"> See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbook.com.
O. Roofing, gutters and trim	<ul style="list-style-type: none"> Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff. 	
P. Sidewalks and Parking Lots		<ul style="list-style-type: none"> Sweep sidewalks regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into storm drain system.

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)
A	Bioretention Basin A	Figure 3 – WQMP Site Plan
B	Bioretention Basin B	Figure 3 – WQMP Site Plan
Interim	Interim Basin	Figure 3 – WQMP Site Plan

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.

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: Property Owner and City of Menifee

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

☐ Y ☒ N

The City of Menifee will maintain Bioretention Basin "B" and Bioretention Basin "A" will be privately maintained.

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.

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map

FIGURE 1: Vicinity Map

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MR 56 COMMERCIAL SITE VICINITY MAP

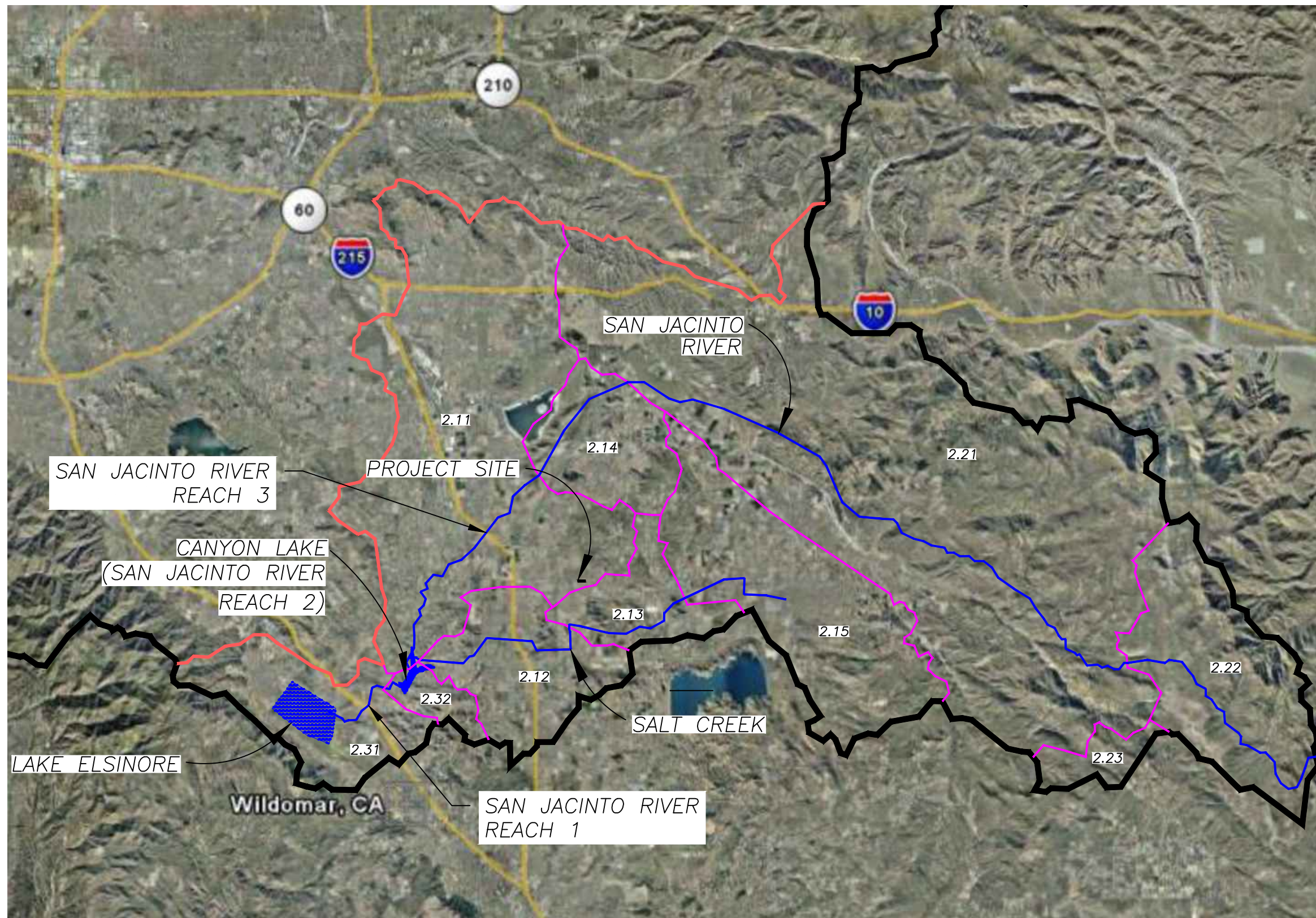


JLC Engineering & Consulting, Inc.
41660 IVY STREET, SUITE A
MURRIETA, CA 92562
PH. 951.304.9552 FAX 951.304.3568

FIGURE 1

FIGURE 2: Receiving Waters Map

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Last Opened: Jan 24, 2018 - 3:36pm by jcarver



HARVEST GLEN MARKETPLACE RECEIVING WATERS MAP



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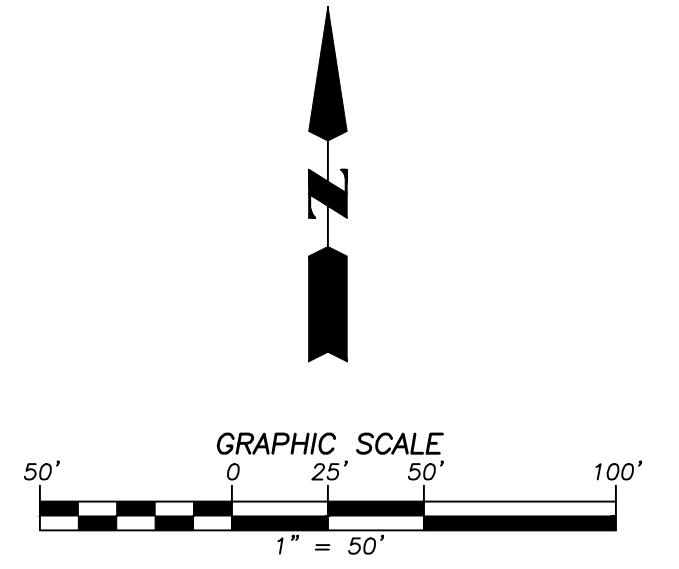
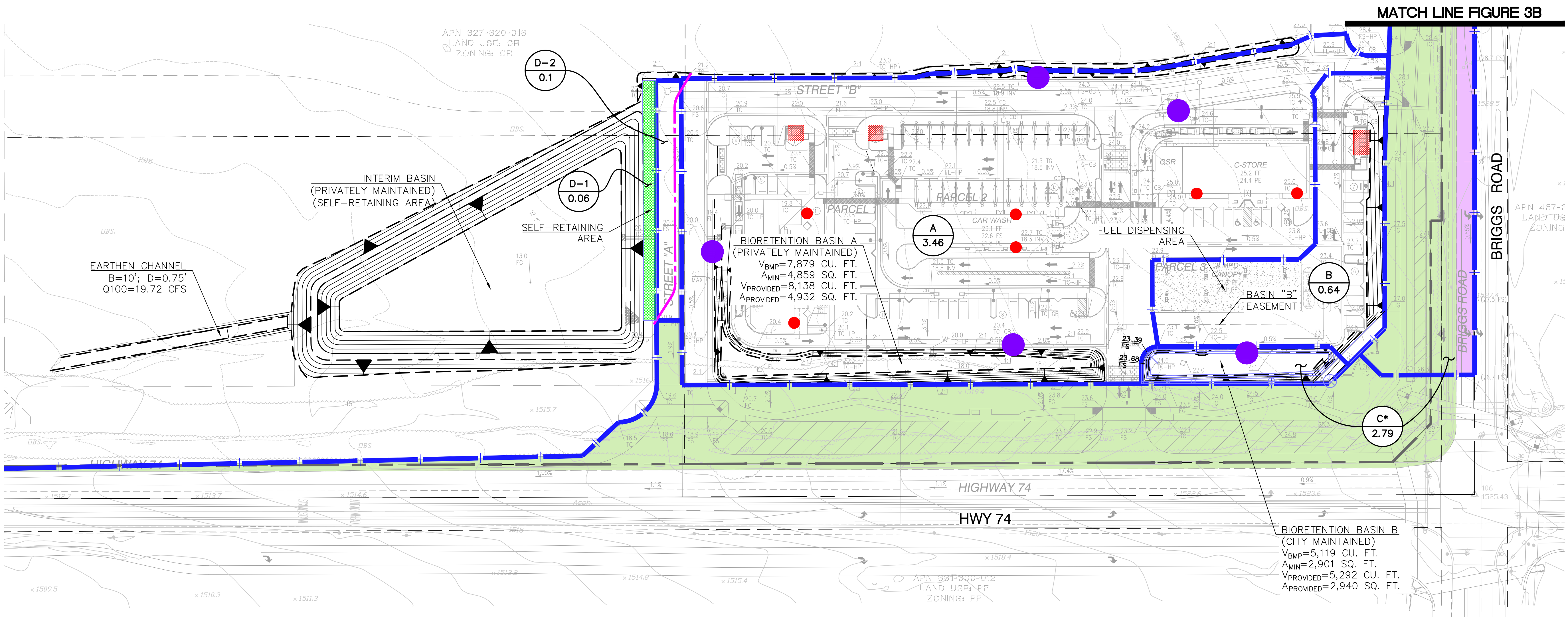
FIGURE 2

FIGURE 3: Site Plan

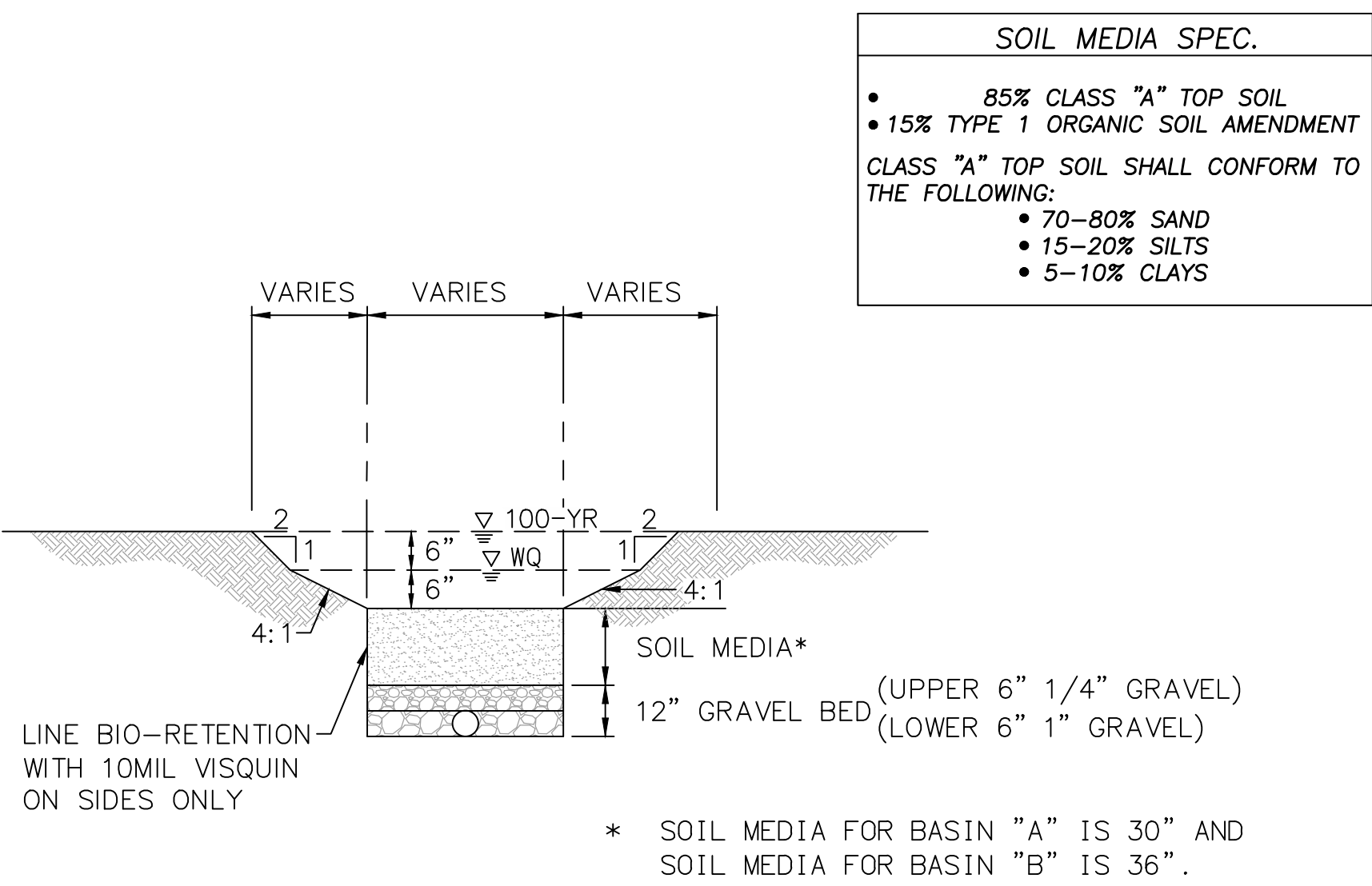
MR 56 COMMERCIAL SITE

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

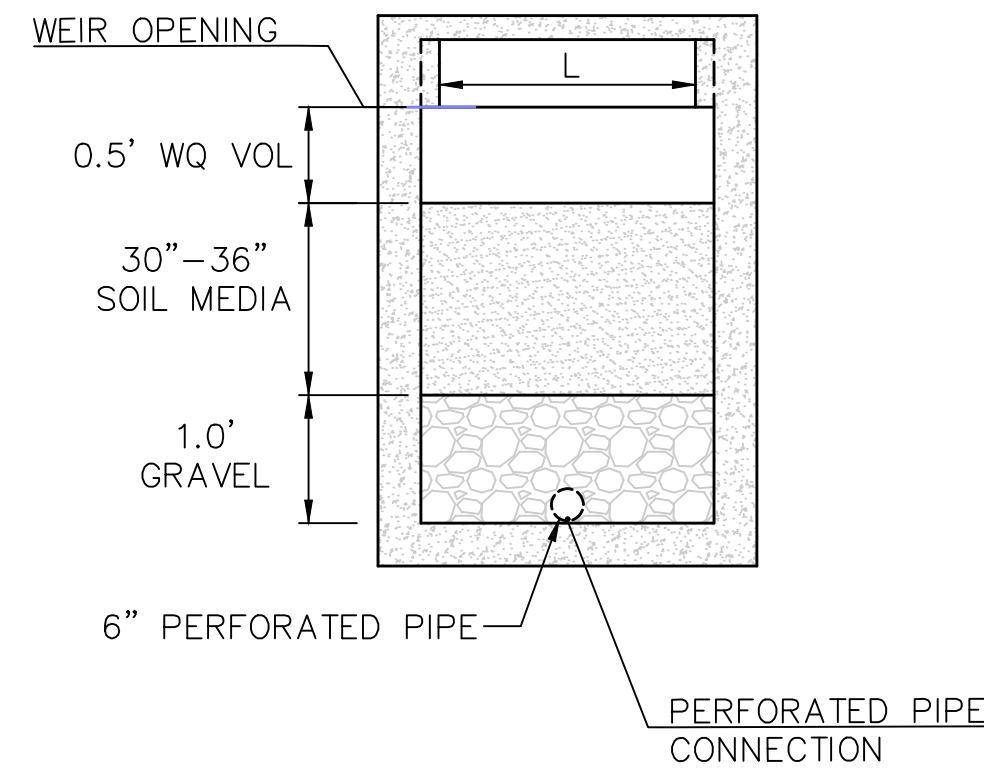
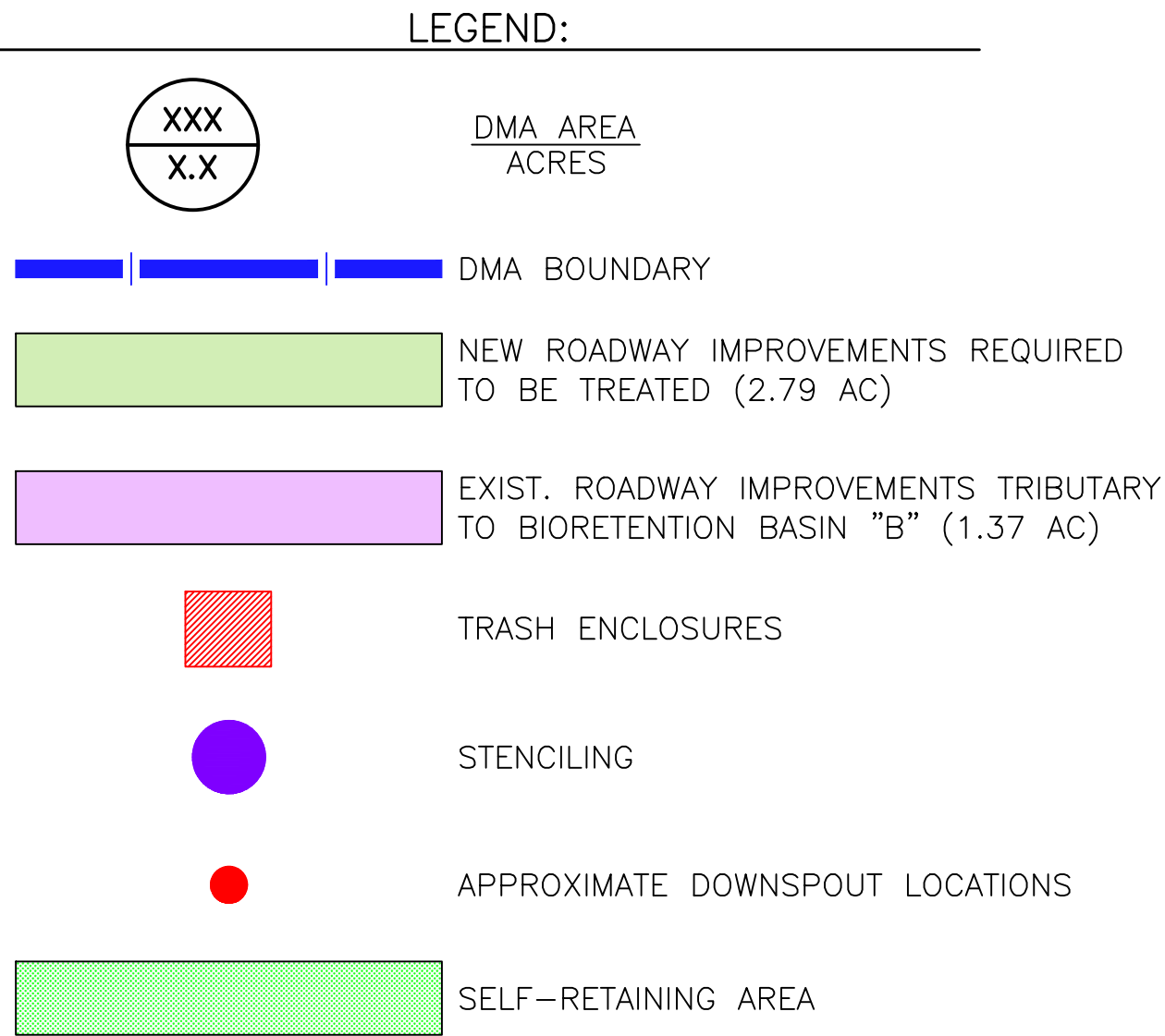
WQMP SITE PLAN



*NOTE: DMA C INCLUDES 2.65 ACRES OF OFFSITE AREA AND 0.14 ACRES OF BASIN AREA FOR A TOTAL OF 2.79 ACRES FOR DMA C.



TYPICAL BIORETENTION BASIN SECTION
SCALE: 1"=3'



TYPICAL BIORETENTION BASIN OUTLET DETAIL
NTS

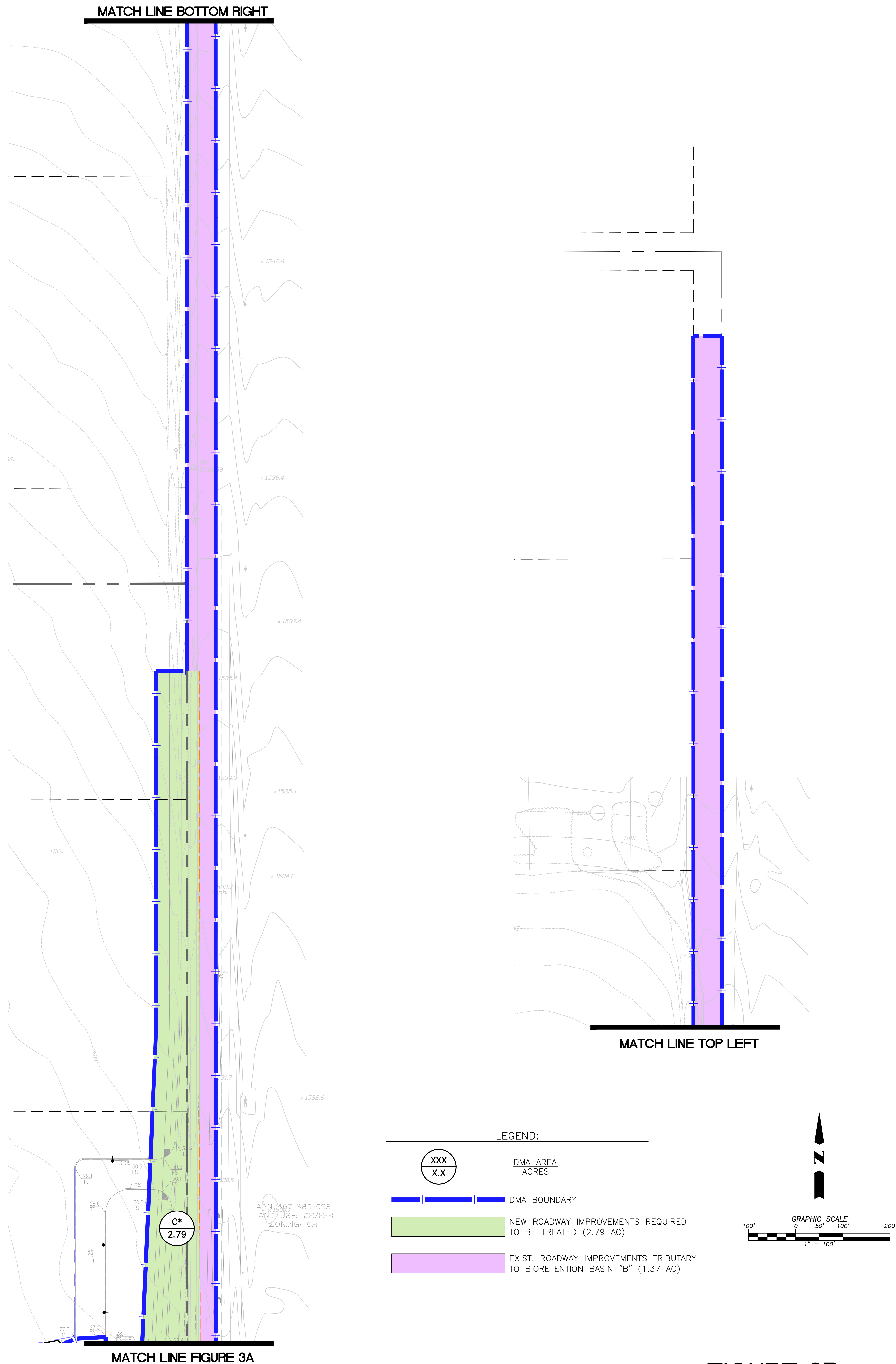
JLC Engineering & Consulting, Inc.
41660 IVY STREET, SUITE A
MURRIETA, CA 92562
PH. 951.304.9552 FAX 951.304.3568

FIGURE 3A
MR 56 COMMERCIAL SITE
WQMP SITE PLAN

MR 56 COMMERCIAL SITE

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

POST-PROJECT CONDITION SITE HYDROLOGY MAP

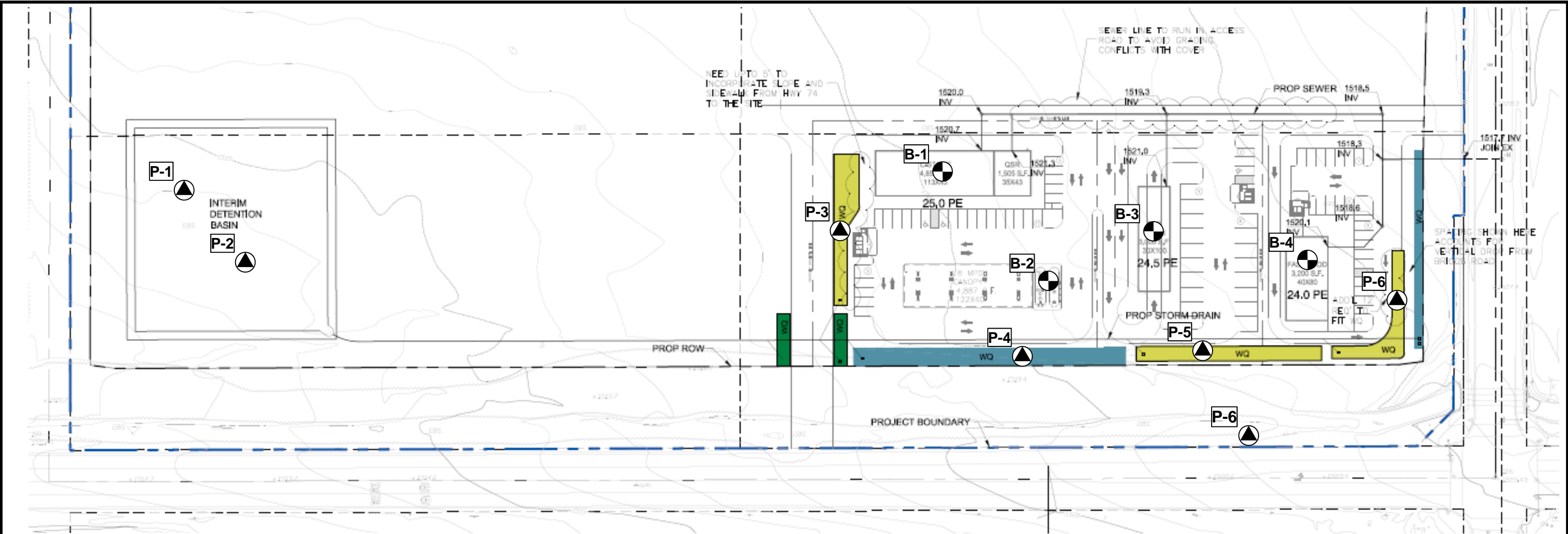


Appendix 2: Construction Plans

Grading and Drainage Plans

Appendix 3: Soils Information

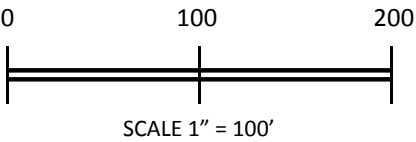
Geotechnical Study and Other Infiltration Testing Data



Source: Anderson Consulting Engineers, Inc., undated.

GEOCON LEGEND
Locations are approximate

- B-10** BORING
- P-6** PERCOLATION TEST
- TOPSOIL
- Qof** ALLUVIUM



GEOCON WEST, INC. GEOTECHNICAL ENVIRONMENTAL MATERIALS 41571 CORNING PLACE, SUITE 101, MURRIETA, CA 92562-7065 PHONE 951-304-2300 FAX 951-304-2392		GEOTECHNICAL MAP		
		MR 56 COMMERCIAL SITE NWC HIGHWAY 74 AND BRIGGS ROAD ROMOLAND AREA RIVERSIDE COUNTY, CALIFORNIA		
AMO		APRIL, 2017	PROJECT NO. T2765-22-01	FIG. 2

Porchet Method - Conversion of Percolation Rate to Infiltration Rate		Perc Test No. P-1	Legend:	Required Entries Calculated Cells
Company Name: JLC Engineering and Consulting, Inc.		Date: 7/25/2017		
Designed by: Jilleen Ferris		County/City Case No: MR-56		
Percolation Conversion to Infiltration Rate				
<p>The conversion equation is used:</p> $I_t(\text{in/hr}) = \frac{\Delta H(\text{in}) \times 60 (\text{min/hr}) \times r(\text{in})}{\Delta t(\text{min}) \times [r(\text{in}) + 2H_{\text{avg}}(\text{in})]}$				
If test hole is round - Enter radius here		→	r =	4.00 inches
If test hole is square - Enter average side width below				
w =		0.00 inches	r _{eq} =	0.00 inches
Time interval		Δt =	30.0 minutes	
Initial height of water during selected time interval		H _o =	42.20 inches	
Final height of water during selected time interval		H _f =	41.80 inches	
Change in height of water during selected time interval		ΔH =	0.40 inches	
Average head height over the selected time interval		H _{avg} =	42.00 inches	
Converted infiltration rate per test data		I _t =	0.04 inches/hour	
Comments				

Porchet Method - Conversion of Percolation Rate to Infiltration Rate		Perc Test No. P-2	Legend:	Required Entries Calculated Cells
Company Name: JLC Engineering and Consulting, Inc.		Date: 7/25/2017		
Designed by: Jilleen Ferris		County/City Case No: MR-56		
Percolation Conversion to Infiltration Rate				
<p>The conversion equation is used:</p> $I_t(\text{in/hr}) = \frac{\Delta H(\text{in}) \times 60 (\text{min/hr}) \times r(\text{in})}{\Delta t(\text{min}) \times [r(\text{in}) + 2H_{\text{avg}}(\text{in})]}$				
If test hole is round - Enter radius here —————>		r = 4.00 inches		
If test hole is square - Enter average side width below				
w = 0.00 inches		r _{eq} = 0.00 inches		
Time interval		Δt = 30.0 minutes		
Initial height of water during selected time interval		H _o = 42.50 inches		
Final height of water during selected time interval		H _f = 42.40 inches		
Change in height of water during selected time interval		ΔH = 0.10 inches		
Average head height over the selected time interval		H _{avg} = 42.45 inches		
Converted infiltration rate per test data		I _t = 0.01 inches/hour		
Comments				

Porchet Method - Conversion of Percolation Rate to Infiltration Rate		Perc Test No. P-3	Legend:	Required Entries Calculated Cells
Company Name: JLC Engineering and Consulting, Inc.		Date: 7/25/2017		
Designed by: Jilleen Ferris		County/City Case No: MR-56		
Percolation Conversion to Infiltration Rate				
<p>The conversion equation is used:</p> $I_t(\text{in/hr}) = \frac{\Delta H(\text{in}) \times 60 (\text{min/hr}) \times r(\text{in})}{\Delta t(\text{min}) \times [r(\text{in}) + 2H_{\text{avg}}(\text{in})]}$				
If test hole is round - Enter radius here —————>		r = 4.00 inches		
If test hole is square - Enter average side width below				
w = 0.00 inches		r _{eq} = 0.00 inches		
Time interval		Δt = 30.0 minutes		
Initial height of water during selected time interval		H _o = 40.00 inches		
Final height of water during selected time interval		H _f = 39.50 inches		
Change in height of water during selected time interval		ΔH = 0.50 inches		
Average head height over the selected time interval		H _{avg} = 39.75 inches		
Converted infiltration rate per test data		I _t = 0.05 inches/hour		
Comments				

Porchet Method - Conversion of Percolation Rate to Infiltration Rate		Perc Test No. P-4	Legend:	Required Entries Calculated Cells
Company Name: JLC Engineering and Consulting, Inc.		Date: 7/25/2017		
Designed by: Jilleen Ferris		County/City Case No: MR-56		
Percolation Conversion to Infiltration Rate				
<p>The conversion equation is used:</p> $I_t(\text{in/hr}) = \frac{\Delta H(\text{in}) \times 60 (\text{min/hr}) \times r(\text{in})}{\Delta t(\text{min}) \times [r(\text{in}) + 2H_{\text{avg}}(\text{in})]}$				
If test hole is round - Enter radius here —————>		r = 4.00 inches		
If test hole is square - Enter average side width below				
w = 0.00 inches		r _{eq} = 0.00 inches		
Time interval		Δt = 30.0 minutes		
Initial height of water during selected time interval		H _o = 42.60 inches		
Final height of water during selected time interval		H _f = 42.50 inches		
Change in height of water during selected time interval		ΔH = 0.10 inches		
Average head height over the selected time interval		H _{avg} = 42.55 inches		
Converted infiltration rate per test data		I _t = 0.01 inches/hour		
Comments				

Porchet Method - Conversion of Percolation Rate to Infiltration Rate		Perc Test No. P-5	Legend:	Required Entries Calculated Cells
Company Name: JLC Engineering and Consulting, Inc.		Date: 7/25/2017		
Designed by: Jilleen Ferris		County/City Case No: MR-56		
Percolation Conversion to Infiltration Rate				
<p>The conversion equation is used:</p> $I_t(\text{in/hr}) = \frac{\Delta H(\text{in}) \times 60 (\text{min/hr}) \times r(\text{in})}{\Delta t(\text{min}) \times [r(\text{in}) + 2H_{\text{avg}}(\text{in})]}$				
If test hole is round - Enter radius here —————>		r = 4.00 inches		
If test hole is square - Enter average side width below				
w = 0.00 inches		r _{eq} = 0.00 inches		
Time interval		Δt = 30.0 minutes		
Initial height of water during selected time interval		H _o = 43.80 inches		
Final height of water during selected time interval		H _f = 43.40 inches		
Change in height of water during selected time interval		ΔH = 0.40 inches		
Average head height over the selected time interval		H _{avg} = 43.60 inches		
Converted infiltration rate per test data		I _t = 0.04 inches/hour		
Comments				

Porchet Method - Conversion of Percolation Rate to Infiltration Rate		Perc Test No. P-6	Legend:	Required Entries Calculated Cells
Company Name: JLC Engineering and Consulting, Inc.		Date: 7/25/2017		
Designed by: Jilleen Ferris		County/City Case No: MR-56		
Percolation Conversion to Infiltration Rate				
<p>The conversion equation is used:</p> $I_t(\text{in/hr}) = \frac{\Delta H(\text{in}) \times 60 (\text{min/hr}) \times r(\text{in})}{\Delta t(\text{min}) \times [r(\text{in}) + 2H_{\text{avg}}(\text{in})]}$				
If test hole is round - Enter radius here —————>		r = 4.00 inches		
If test hole is square - Enter average side width below				
w = 0.00 inches		r _{eq} = 0.00 inches		
Time interval		Δt = 30.0 minutes		
Initial height of water during selected time interval		H _o = 43.10 inches		
Final height of water during selected time interval		H _f = 42.70 inches		
Change in height of water during selected time interval		ΔH = 0.40 inches		
Average head height over the selected time interval		H _{avg} = 42.90 inches		
Converted infiltration rate per test data		I _t = 0.04 inches/hour		
Comments				

GEOTECHNICAL INVESTIGATION AND PERCOLATION TESTING

**MR 56 COMMERCIAL SITE
NWC HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA**



GEOCON
WEST, INC.

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

PREPARED FOR

**MR 56 LLC
C/O THE RANCON GROUP
MURRIETA, CALIFORNIA**

**APRIL 24, 2017
PROJECT NO. T2765-22-01**



Project No. T2765-22-01
April 24, 2017

MR 56 LLC
c/o The Rancon Group, Inc.
41391 Kalmia Street, Suite 200
Murrieta, California 92562

Attention: Mr. Dan Long

Subject: GEOTECHNICAL INVESTIGATION
AND PERCOLATION TESTING
MR 56 COMMERCIAL SITE
NWC HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

Dear Mr. Long:

In accordance with your authorization of Proposal IE-1813 dated March 14, 2017, Geocon West, Inc. (Geocon) herein submits the results of our geotechnical investigation and percolation testing for the proposed commercial development located at the northwest corner of the intersection of Highway 74 and Briggs Road, Menifee, California. The accompanying report presents our findings, conclusions and recommendations pertaining to the geotechnical aspects of the proposed development. Based on the results of our investigation, it is our opinion that the site can be developed as proposed, provided the recommendations of this report are followed and implemented during design and construction.

Should you have any questions regarding this report, or if we may be of further service, please contact the undersigned at your convenience.

Very truly yours,

GEOCON WEST, INC.


Arnold Gastelum
PE 81553




Paul D. Theriault
CEG 2374



PDT:AG:JTA:LAB:hd

(email) Addressee

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LIMITATIONS AND UNIFORMITY OF CONDITIONS

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APPENDIX A

EXPLORATORY EXCAVATIONS

- Figures A-1 through A-4, Geotechnical Borings Logs
- Figures A-5 through A-10, Percolation Test Boring Logs
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LABORATORY TESTING

- Figures B-1 and B-2, Summary of Laboratory Test Results
- Figures B-3 and B-4, Grain Size Distribution
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- Figure B-7, Direct Shear Test Results

APPENDIX C

RECOMMENDED GRADING SPECIFICATIONS

GEOTECHNICAL INVESTIGATION AND PERCOLATION TESTING

1. PURPOSE AND SCOPE

This report presents the results of our geotechnical investigation and percolation testing for the proposed commercial development, located at the northwest corner of the intersection of Highway 74 and Briggs Road, Menifee, California as depicted on the *Vicinity Map*, Figure 1. The purpose of the investigation was to evaluate subsurface soil and geologic conditions underlying the area of proposed construction and, based on conditions encountered, to provide conclusions and recommendations pertaining to the geotechnical aspects of design and construction.

The scope of our investigation included a site reconnaissance, subsurface exploration, percolation testing, laboratory testing, engineering analyses, and the preparation of this report. The site was explored on March 28, 2017 by excavating ten 8-inch diameter borings using a truck-mounted hollow-stem auger drilling machine. Six of the borings were converted to percolation test holes. The borings were excavated to depths between 5 and 50 feet below the ground surface. The approximate locations of the exploratory excavations are presented on the *Geotechnical Map*, Figure 2. *Appendix A* presents a discussion of the field investigation, logs of the excavations, and percolation test data.

Laboratory tests were performed on selected soil samples obtained during the investigation to determine pertinent physical and chemical soil properties. *Appendix B* presents a summary of the laboratory test results.

The recommendations presented herein are based on analysis of the data obtained during the investigation and our experience with similar soil and geologic conditions. References reviewed to prepare this report are provided in the *List of References* section.

If project details vary significantly from those described above, Geocon should be contacted to determine the necessity for review and possible revision of this report.

2. SITE AND PROJECT DESCRIPTION

The site is located at the northwest intersection of Highway 74 and Briggs Road, in the city of Menifee, California. The area of proposed construction is bound on the south by Highway 74, on the east by Briggs Road, and of the north and west by vacant parcels, currently being used as agricultural land. The site is relative flat and has an elevation of 1,527 feet above mean sea level (MSL) in the northeast corner and 1,519 MSL in the southwest corner. Drainage is by sheet flow to the southwest. The site is currently being used to grow wheat.

This phase of development will consist of approximately 4-acres and include a gas station with convenience store and car wash, and a fast food restaurant in the southeast portion of the site. Several water quality basins around the perimeter of the site will drain into an interim detention basin of the southwestern area of the site.

Due to preliminary nature of the design, wall and column loads were not available. It is anticipated that column loads for the proposed structures will be up to 50 kips, and wall loads will be up to 3 kips per linear foot. Once the design phase and foundation loading configuration proceeds to a more finalized plan, the recommendations within this report should be reviewed and revised, if necessary.

If project details differ significantly from those described, Geocon should be contacted for review and possible revision to this report.

3. GEOLOGIC SETTING

The project site is in the Romoland area (recently incorporated into the city of Menifee) of southwestern Riverside County within the Peninsular Ranges Geomorphic Province (Province). The Peninsular Ranges are bound by the Transverse Ranges (San Gabriel and San Bernardino Mountains) to the north, and the Colorado Desert Geomorphic Province to the east. The Province extends westward into the Pacific Ocean and southward to the tip of Baja California. Geologic units within the Peninsular Ranges consist of granitic and metamorphic bedrock highlands and deep and broad alluvium filled valleys. Faulting within the Province is typically northwest trending and includes the San Andreas, San Jacinto, Elsinore, and Newport-Inglewood faults. Specifically, the site is located on an old alluvial fan emanating from the surrounding Lakeview Mountains. The site is underlain by older alluvial fan deposits observed underlying a thin layer of topsoil.

4. GEOLOGIC MATERIALS

4.1 General

Site geologic materials encountered consist of topsoil and Quaternary age old alluvial fan deposits. Detailed stratigraphic profiles are provided on the boring logs in *Appendix A* and are described herein in order of increasing age, and follow the nomenclature of Morton, 2003 (see *List of References*).

4.2 Topsoil

Topsoil was encountered to depths between 2½ and 5 feet below existing ground surface during our investigation. As encountered, the topsoil generally consists of dark brown silty sand that is loose to medium dense, and slightly moist to moist. Deeper topsoil may exist between excavations and in other portions of the site that were not directly explored.

4.3 Old Alluvial Fan Deposits (Qof)

Old alluvial fan deposits were encountered beneath the topsoil in all the borings. The old alluvial fan deposits consist of brown silty sand that is medium dense to very dense, and slightly moist to moist. Trace amounts of clay and calcium carbonate stringers were observed.

5. GROUNDWATER

Groundwater was not encountered in our borings, excavated to a maximum depth of 50 feet below the existing ground surface. The California Department of Water Resources (CDWR) well data indicates groundwater has been measured at depths between 72 to 114 feet below the ground surface in nearby wells. Based on the reported historic high groundwater level in the area (CDWR), the depth of the proposed construction, and the absence of groundwater observed in our borings, it is unlikely that groundwater will be encountered during construction. However, it is common for perched groundwater to seasonally occur in the area or for groundwater conditions to develop where none previously existed, especially in impermeable fine-grained soils which are heavily irrigated or after seasonal rainfall. In addition, recent requirements for stormwater infiltration could result in shallower seepage conditions in the immediate site vicinity. Proper surface drainage of irrigation and precipitation will be critical for future performance of the project. Recommendations for drainage are provided in the *Surface Drainage* section of this report.

6. GEOLOGIC HAZARDS

6.1 Surface Fault Rupture

The numerous faults in southern California include active, potentially active, and inactive faults. The criteria for these major groups are based on criteria developed by the California Geological Survey (CGS, formerly known as CDMG) for the Alquist-Priolo Earthquake Fault Zone Program (Bryant and Hart, 2007). By definition, an active fault is one that has had surface displacement within Holocene time (about the last 11,000 years). A potentially active fault has demonstrated surface displacement during Quaternary time (approximately the last 1.6 million years), but has had no known Holocene movement. Faults that have not moved in the last 1.6 million years are considered inactive.

The site is not within a currently established State of California Alquist-Priolo Earthquake Fault Zone (CGS, 2016) or County of Riverside Fault Zone for surface fault rupture hazards. No active or potentially active faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during

the design life of the proposed development is considered low. However, the site is located in the seismically active southern California region, and could be subjected to moderate to strong ground shaking in the event of an earthquake on one of the many active southern California faults

The closest active fault to the site is the Casa Loma strand of the San Jacinto Fault Zone located approximately 7.4 miles to the northeast (CDMG, 1986). Other nearby active faults are the Glen Ivy North and Wildomar segments of the Elsinore Fault Zone, located 11.3 and 12.3 miles to the southwest, respectively. The active San Andreas Fault Zone is located approximately 22.5 miles northeast of the site.

6.2 Seismicity

As with all southern California, the site has experienced historic earthquakes from various regional faults. The seismicity of the region surrounding the site was formulated based on research of an electronic database of earthquake data. A partial list of moderate to major magnitude earthquakes that have occurred in the southern California area within the last 100 years is included in Table 6.2.1 below.

TABLE 6.2.1
LIST OF HISTORIC EARTHQUAKES

Earthquake (Oldest to Youngest)	Date of Earthquake	Magnitude	Distance to Epicenter (Miles)	Direction to Epicenter
San Jacinto	April 24, 1918	6.8	8	E
Loma Linda Area	July 22, 1923	6.3	19	NNW
Long Beach	March 10, 1933	6.4	48	W
Buck Ridge	March 25, 1937	6.0	55	ESE
Imperial Valley	May 18, 1940	6.9	53	ENE
Desert Hot Springs	December 4, 1948	6.0	45	ENE
Arroyo Salada	March 19, 1954	6.4	68	ESE
Borrego Mountain	April 8, 1968	6.5	74	ESE
San Fernando	February 9, 1971	6.6	92	WNW
Joshua Tree	April 22, 1992	6.1	54	ENE
Landers	June 28, 1992	7.3	54	NE
Big Bear	June 28, 1992	6.4	37	NE
Northridge	January 17, 1994	6.7	94	WNW
Hector Mine	October 16, 1999	7.1	80	NE

The site could be subjected to strong ground shaking in the event of an earthquake. However, this hazard is common in southern California and the effects of ground shaking can be mitigated if the proposed structures are designed and constructed in conformance with current building codes and engineering practices.

6.3 Seismic Design Criteria

The following table summarizes site-specific design criteria obtained from the 2016 California Building Code (CBC; Based on the 2015 International Building Code [IBC] and ASCE 7-10), Chapter 16 Structural Design, Section 1613 Earthquake Loads. The data was calculated using the computer program *U.S. Seismic Design Maps*, provided by the USGS. The short spectral response uses a period of 0.2 second. We evaluated the Site Class based on the discussion in Section 1613.3.2 of the 2016 CBC and Table 20.3-1 of ASCE 7-10. The values presented below are for the risk-targeted maximum considered earthquake (MCE_R).

**TABLE 6.3.1
2016 CBC SEISMIC DESIGN PARAMETERS**

Parameter	Value	2016 CBC Reference
Site Class	C	Section 1613.3.2
MCE_R Ground Motion Spectral Response Acceleration – Class B (short), S_S	1.500g	Figure 1613.3.1(1)
MCE_R Ground Motion Spectral Response Acceleration – Class B (1 sec), S_1	0.600g	Figure 1613.3.1(2)
Site Coefficient, F_a	1.0	Table 1613.3.3(1)
Site Coefficient, F_v	1.3	Table 1613.3.3(2)
Site Class Modified MCE_R Spectral Response Acceleration (short), S_{MS}	1.500g	Section 1613.3.3 (Eqn 16-37)
Site Class Modified MCE_R Spectral Response Acceleration (1 sec), S_{M1}	0.780g	Section 1613.3.3 (Eqn 16-38)
5% Damped Design Spectral Response Acceleration (short), S_{DS}	1.000g	Section 1613.3.4 (Eqn 16-39)
5% Damped Design Spectral Response Acceleration (1 sec), S_{D1}	0.520g	Section 1613.3.4 (Eqn 16-40)

Table 6.3.2 presents additional seismic design parameters for projects located in Seismic Design Categories of D through F in accordance with ASCE 7-10 for the geometric mean maximum considered earthquake (MCE_G).

**TABLE 6.3.2
2016 CBC SITE ACCELERATION DESIGN PARAMETERS**

Parameter	Value	ASCE 7-10 Reference
Mapped MCE_G Peak Ground Acceleration, PGA	0.500g	Figure 22-7
Site Coefficient, F_{PGA}	1.0	Table 11.8-1
Site Class Modified MCE_G Peak Ground Acceleration, PGA_M	0.500g	Section 11.8.3 (Eqn 11.8-1)

The Maximum Considered Earthquake Ground Motion (MCE) is the level of ground motion that has a 2 percent chance of exceedance in 50 years, with a statistical return period of 2,475 years. According to the 2016 California Building Code and ASCE 7-10, the MCE is to be utilized for the evaluation of liquefaction, lateral spreading, seismic settlements, and it is our understanding that the intent of the Building code is to maintain “Life Safety” during a MCE event. The Design Earthquake Ground Motion (DE) is the level of ground motion that has a 10 percent chance of exceedance in 50 years, with a statistical return period of 475 years.

Deaggregation of the MCE peak ground acceleration was performed using the USGS online BETA Unified Hazard Tool, 2008 Conterminous U.S. Dynamic edition. The result of the deaggregation analysis indicates that the predominant earthquake contributing to the MCE peak ground acceleration is characterized as a 7.05 magnitude event occurring at a hypocentral distance of 13.9 kilometers from the site.

Deaggregation was also performed for the Design Earthquake (DE) peak ground acceleration, and the result of the analysis indicates that the predominant earthquake contributing to the DE peak ground acceleration is characterized as a 7.03 magnitude occurring at a hypocentral distance of 16.2 kilometers from the site.

Conformance to the criteria in Tables 6.3.1 and 6.3.2 for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a large earthquake occurs. The primary goal of seismic design is to protect life, not to avoid all damage, since such design may be economically prohibitive.

6.4 Liquefaction Potential

Liquefaction is a phenomenon in which loose, saturated, relatively cohesionless soil deposits lose shear strength during strong ground motions. Primary factors controlling liquefaction include intensity and duration of ground motion, gradation characteristics of the subsurface soils, in-situ stress conditions, and the depth to groundwater. Liquefaction is typified by a loss of shear strength in the liquefied layers due to rapid increases in pore water pressure generated by earthquake accelerations.

The current standard of practice, as outlined in the “Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction in California” and “Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California” requires liquefaction analysis to a depth of 50 feet below the lowest portion of the proposed structure. Liquefaction typically occurs in areas where the soils below the water table are composed of poorly consolidated, fine to medium-grained, primarily sandy soil. In addition to the requisite soil conditions, the ground acceleration and duration of the earthquake must also be of a sufficient level to induce liquefaction.

Based on the dense nature of the old alluvial deposits, the potential for liquefaction and seismically-induced settlement at the site is considered negligible.

6.5 Collapsible Soils

Hydroconsolidation is the tendency of unsaturated soil structure to collapse upon saturation resulting in the overall settlement of the effected soil and overlying foundations or improvements supported thereon. Potentially compressible soils underlying the site are typically removed and recompactd during remedial site grading. However, if compressible soil is left in-place, a potential for settlement due to hydroconsolidation of the soil exists.

Based on the results of our laboratory testing, the onsite soils do not exhibit a potential for significant collapse upon saturation. Furthermore, remedial grading (removal of topsoil and upper older alluvial fan deposits) is recommended to further reduce the potential effects of collapsible soils in the near surface layers.

6.6 Landslides

There are no steep slopes on or adjacent to the site. Therefore, landslides are not a design consideration for the site.

6.7 Rock Fall Hazards

Rock falls are not a design consideration for the site.

6.8 Slope Stability

Fill slopes are anticipated to be less than 10 feet in vertical height and graded to inclinations of 2:1. In general, it is our opinion that proposed fill slopes will possess adequate factors of safety for global and surficial stability. Cut slopes are not anticipated at the site. Specific slope stability analyses should be performed if graded fill slopes over 10 feet are planned at the site. Fill keys should be constructed in accordance with the standard grading specifications in *Appendix C*. Grading of fill slopes should be designed in accordance with the requirements of the local building codes of the County of Riverside and the 2016 California Building Code (CBC).

6.9 Tsunamis and Seiches

A tsunami is a series of long period waves generated in the ocean by a sudden displacement of large volumes of water. Causes of tsunamis include underwater earthquakes, volcanic eruptions, or offshore slope failures. The first order driving force for locally generated tsunamis offshore southern California is expected to be tectonic deformation from large earthquakes (Legg, *et al.*, 2003). The site is located approximately 56 miles from the nearest coastline; therefore, the negligible risk associated with tsunamis is not a design consideration.

A seiche is a run-up of water within a lake or embayment triggered by fault- or landslide-induced ground displacement. The site is located approximately 7 miles south of Lake Perris and 6 miles northeast of Diamond Valley Lake. The site is located up gradient from Diamond Valley Lake, therefore a seiche emanating from Diamond Valley Lake is not a design consideration. Due to the distance from Perris Lake, a seiche is not a design consideration for the site.

6.10 Dam Inundation

Dam inundation is the flooding of an area downstream of a dam as the result of dam failure. Causes of inundation include earthquakes or over filling of a dam. Lakes near the site that have dams include Perris, Diamond Valley and Canyon Lakes. Canyon and Diamond Valley Lakes are down gradient from the site, therefore inundation due to dam failure is not a design consideration. Perris Lake is up gradient; however, inundation in the event of dam failure would follow the San Jacinto River channel southeast towards Canyon Lake. Therefore, inundation due to dam failure of Perris Lake is not a design consideration (Department of Water Resources, 1975).

7. SITE INFILTRATION

Percolation testing was performed in accordance with the Riverside County Flood Control and Water Conservation District *Low Impact Development Best Management Practices Handbook (Handbook)*. The percolation tests were run in accordance with Appendix A, Section 2.3 Shallow Percolation Test Procedure. This method requires two percolation tests and one deep excavation per basin. We utilized a truck-mounted drill rig to excavate the geotechnical and percolation borings. Percolation testing was performed in five areas of the site that are anticipated to receive stormwater infiltration to provide preliminary infiltration values for project planning and design.

The percolation test pits P-1 through P-6 were excavated in the anticipated areas of future stormwater infiltration structures. The percolation test locations are depicted on the *Geotechnical Map*, Figure 2. Boring logs and percolation test data are presented in *Appendix A*. No groundwater was observed within the borings.

Percolation borings were excavated to depths of approximately five feet using a truck-mounted drill rig. Two inches of gravel was placed at the base of each test hole. A 3-inch diameter perforated pipe was placed within each test hole and gravel was placed in the annular space between the sidewall and the 3-inch pipe. Each test location was pre-saturated with five gallons of water, and the percolation testing began approximately 24 hours after the holes were pre-saturated.

Calculations to convert the percolation test rate to infiltration test rate are in accordance with the Handbook Section 2.3, the Porchet Method. Please note that the Handbook requires a factor of safety of 3 be applied to the tested infiltration rates indicated below.

Table 7.1 provides a summary of the infiltration test results. Infiltration tests were performed near the anticipated depth of the proposed basin; however, we understand that other BMPs may be used infiltrate stormwater, including surface bioswales.

**TABLE 7.1
INFILTRATION TEST RATES**

Parameter	P-1	P-2	P-3	P-4	P-5	P-6
Soil Type	Normal	Normal	Normal	Normal	Normal	Normal
Change in head over time (in): ΔH						
Time Interval (min): Δt	30	30	30	30	30	30
Radius of test hole (in): r	4	4	4	4	4	4
Average head over time interval (in): H_{avg}	40.1	41.2	40.4	41.7	43.9	43.1
Tested Infiltration Rate (in/hr): I_t	0.05	0.01	0.06	0.01	0.03	0.03

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 General

- 8.1.1 It is our opinion that soil or geologic conditions were not encountered during the investigation that would preclude the proposed development of the project provided the recommendations presented herein are followed and implemented during design and construction.
- 8.1.2 Potential geologic hazards at the site include seismic shaking. Based on our investigation and available geologic information, active, potentially active, or inactive faults are not present underlying or trending toward the site.
- 8.1.3 The topsoil and upper portion of the older alluvial fan deposits are considered unsuitable for the support of compacted fill or settlement-sensitive improvements. Remedial grading of the upper soils will be required as discussed herein. Newly placed engineered fill is considered suitable to support additional fill, proposed structures, and improvements.
- 8.1.4 The site is underlain by older alluvial fan deposits. We did not encounter refusal during boring excavation and removals should be attainable with grading equipment in good working order.
- 8.1.5 Oversize material (greater than six-inches) was not encountered during our subsurface investigation. However, occasional cobble and boulders may be encountered during grading. If oversize material is encountered it should be disposed of in accordance with *Appendix C*.
- 8.1.6 Moisture contents are expected to vary based on the season and amount of precipitation. Special handling of the soil should be anticipated, particularly if grading occurs during the rainy season, as drying back of the existing materials may be necessary prior to their use as fill.
- 8.1.7 Although groundwater was not encountered during our subsurface investigation, it is possible that perched water will be encountered during grading during the rainy seasons, and may require special considerations during grading.
- 8.1.8 Proper drainage should be maintained to preserve the engineering properties of the fill in the graded areas. Recommendations for site drainage are provided herein.
- 8.1.9 Once grading plans become available, they should be reviewed by this office to determine the necessity for review and possible revision of this report.

8.1.10 Fill slopes and cut slopes are not expected to exceed 10 feet in height and should be constructed at a gradient of 2:1 or flatter. If slope heights greater than those assumed herein are incorporated into the project, Geocon should be provided the opportunity to review the slopes for stability.

8.1.11 Recommended grading specifications are provided in *Appendix C*.

8.2 Soil Characteristics

8.2.1 It is the responsibility of the contractor to ensure that excavations and trenches are properly shored and maintained in accordance with applicable OSHA rules and regulations to maintain safety and maintain the stability of adjacent existing improvements.

8.2.2 Onsite excavations must be conducted in such a manner that potential surcharges from existing structures, construction equipment, and vehicle loads are resisted. The surcharge area may be defined by a 1:1 projection down and away from the bottom of an existing foundation or vehicle load. Penetrations below this 1:1 projection will require special excavation measures such as sloping or shoring. Excavation recommendations are provided in the *Temporary Excavations* section of this report.

8.2.3 Based on the material classifications and laboratory testing by Geocon, site soils consisting of topsoil and older alluvial fan deposits generally possess a low expansion potential (EI = 0 to 49) and are considered “expansive” as defined by 2016 California Building Code (CBC) Section 1803.5.3. Table 8.2.3 presents soil classifications based on the EI.

TABLE 8.2.3
SOIL CLASSIFICATION BASED ON EXPANSION INDEX

Expansion Index (EI)	Expansion Classification	2016 CBC Expansion Classification
0 – 20	Very Low	Non-Expansive
21 – 50	Low	Expansive
51 – 90	Medium	
91 – 130	High	
Greater Than 130	Very High	

8.2.4 Based on the material classifications and laboratory testing, site soils are generally anticipated to possess a low expansion potential (EI of 50 or less). If any medium to highly expansive soils are encountered or imported to the site, they should not be placed within four feet of the

proposed foundations, flatwork or paving improvements. Additional testing for expansion potential should be performed once final grades are achieved.

- 8.2.5 Laboratory tests were completed on a sample of the site materials to evaluate the percentage of water-soluble sulfate content. Results from the laboratory water-soluble sulfate content tests indicate that the on-site materials at the location tested possess a sulfate content of 0.085% equating to an exposure class of S0 (Not Applicable) to concrete structures as defined by 2016 CBC Section 1904.3 and ACI 318. Table 8.2.5 presents a summary of concrete requirements set forth by 2016 CBC Section 1904.3 and ACI 318. The presence of water-soluble sulfates is not a visually discernible characteristic; therefore, other soil samples from the site could yield different concentrations. Additionally, over time landscaping activities (i.e., addition of fertilizers and other soil nutrients) may affect the concentration.

**TABLE 8.2.5
REQUIREMENTS FOR CONCRETE
EXPOSED TO SULFATE-CONTAINING SOLUTIONS**

Sulfate Exposure	Exposure Class	Water-Soluble Sulfate Percent by Weight	Cement Type	Maximum Water to Cement Ratio by Weight	Minimum Compressive Strength (psi)
Negligible	S0	0.00-0.10	--	--	2,500
Moderate	S1	0.10-0.20	II	0.50	4,000
Severe	S2	0.20-2.00	V	0.45	4,500
Very Severe	S3	> 2.00	V+ Pozzolan or Slag	0.45	4,500

- 8.2.6 Laboratory testing indicates the site soils have a minimum electrical resistivity of 830 ohm-cm, possess 270 parts per million chloride, 0.085% sulfate (850 parts per million), and have a pH of 7.0. As shown in Table 8.2.6, based on the resistivity test results, the site would be classified as “corrosive” in accordance with the Caltrans Corrosion Guidelines (Caltrans, 2012).

**TABLE 8.2.6
CALTRANS CORROSION GUIDELINES**

Corrosion Exposure	Resistivity (ohm-cm)	Chloride (ppm)	Sulfate (ppm)	pH
Not Corrosive	>1,000	<500	<2,000	>5.5
Corrosive	<1,000	500 or greater	2,000 or greater	5.5 or less

- 8.2.7 Geocon does not practice in the field of corrosion engineering. Therefore, further evaluation by a corrosion engineer should be performed if improvements that could be susceptible to corrosion are planned.

8.3 Grading

- 8.3.1 Grading should be performed in accordance with the *Recommended Grading Specifications* contained in *Appendix C* and the Grading Ordinances of the City of Menifee.
- 8.3.2 Prior to commencing grading, a preconstruction conference should be held at the site with the county inspector, owner or developer, grading contractor, civil engineer, and geotechnical engineer in attendance. Special soil handling and/or the grading plans can be discussed at that time.
- 8.3.3 Site preparation should begin with the removal of deleterious material, debris, buried trash, and vegetation. The depth of removal should be such that material exposed in cut areas or soil to be used as fill is relatively free of organic matter. Material generated during stripping and/or site demolition should be exported from the site.
- 8.3.4 Any topsoil and unsuitable old alluvial fan deposits within the limits of grading should be removed to expose competent older alluvial fan deposits. Depth of removals is anticipated to be generally about 4 feet in depth below existing ground surface based on the subsurface excavation logs. However, excavations of up to 5 feet may be required in localized areas to remove all topsoil and/or loose soils. The actual depth of removal should be evaluated by the engineering geologist during grading operations. In general, removals should extend to a depth at which moderately dense soils with no visible porosity are encountered. For the purposes of this project moderately dense soils are defined as in-situ, natural soils which have a dry density of at least 85 percent of maximum density based on ASTM D1557. Where over excavation and compaction is to be conducted, the excavations should be extended laterally a minimum distance of 5 feet beyond the building footprint or for a distance equal to the depth of removal, whichever is greater. Where the lateral over-excavation is not possible, structural setbacks or deepened footings may be required. Removals in pavement and sidewalk areas should extend at least 1 foot beneath the pavement or flatwork subgrade elevation. The bottom of the excavations should be scarified to a depth of at least 1 foot, moisture conditioned as necessary, and properly compacted.
- 8.3.5 The cut portion in cut fill transition areas within proposed structural areas should be over excavated to remove the differential support conditions. Over excavations should extend a

minimum of H/3 where H is the deepest fill in the building area. The over excavation should extend 5 feet horizontally from the outside edge of the structural area.

- 8.3.6 Geocon should observe the removal bottoms to check the competence at the bottom of the removal. Deeper excavations may be required if dry, loose, soft, or porous materials are present at the base of the removals.
- 8.3.7 The fill placed within 4 feet of proposed foundations should possess a “low” expansion potential (EI of 50 or less).
- 8.3.8 If perched groundwater or saturated materials are encountered during remedial grading, extensive drying and mixing with dryer soil will be required. The excavated materials should then be moisture conditioned as necessary to optimum moisture content prior to placement as compacted fill.
- 8.3.9 The site should be brought to finish grade elevations with fill compacted in layers. Layers of fill should be no thicker than will allow for adequate bonding and compaction. Fill, including backfill and scarified ground surfaces, should be compacted to a dry density of at least 90 percent of the laboratory maximum dry density at optimum moisture content as determined by ASTM D 1557. Fill materials placed below optimum moisture content may require additional moisture conditioning prior to placing additional fill.
- 8.3.10 Import fill (if necessary) should consist of granular materials with a “low” expansion potential (EI of 50 or less), less corrosive than the site soils, generally free of deleterious material and contain rock fragments no larger than 6 inches. Geocon should be notified of the import soil source and should perform laboratory testing of import soil prior to its arrival at the site to evaluate its suitability as fill material.
- 8.3.11 All trench and foundation excavation bottoms must be observed and approved in writing by the Geotechnical Engineer, prior to placing bedding materials, fill, steel, gravel or concrete.

8.4 Graded Slopes

- 8.4.1 If constructed, fill slopes should be overbuilt at least 2 feet and cut back to grade. The slopes should be track-walked at the completion of each slope such that the fill is compacted to a dry density of at least 90 percent of the laboratory maximum dry density at optimum moisture content. Rocks greater than 6 inches in maximum dimension should not be placed within 15 feet of slope face.

- 8.4.2 Finished slopes should be landscaped with drought-tolerant vegetation having variable root depths and requiring minimal landscape irrigation. The site soils are granular and generally have little to no cohesion, so the slope surfaces will be highly susceptible to erosion. Therefore, the slopes should be drained and properly maintained to reduce the potential for surface erosion. Water should not be allowed to flow down slopes. Construction of earth berms, lined v-ditches or similar are recommended.
- 8.4.3 Proposed slopes are anticipated to be grossly stable, natural factors may result in slope creep and/or lateral fill extension over time. Slope creep is due to alternate wetting and drying of fill soils resulting in downslope movement. Slope creep occurs throughout the life of the slope and may affect improvements within about 10 feet of the top of slope, depending on the slope height. Slope creep can result in differential settlement of the structures supported by the slope. Lateral fill extension (LFE) occurs when expansive soils within the slope experience deep wetting due to rainfall or irrigation. LFE is mitigated as much as practical during grading by placing expansive soils at slightly greater than optimum moisture content.
- 8.4.4 Landscaping activities should avoid over steepening of slopes or grade changes along slopes. Backfill of irrigation lines should be compacted to 90 percent of the maximum dry density as evaluated by ASTM D1557. Vegetation should be light weight with variable root depth.
- 8.4.5 Excessive watering should be avoided; only enough irrigation to support vegetation suitable to the prevailing climate should be applied. Irrigation of natural, ungraded slopes should not be performed. Drainage or irrigation from adjacent improvements should not be directed to the tops of slopes. Drainage should be directed toward streets and approved drainage devices. Areas of seepage may develop after periods of heavy rainfall or irrigation.

8.5 Earthwork Grading Factors

- 8.5.1 Estimates of shrinkage factors are based on empirical judgments comparing the material in its existing or natural state as encountered in the exploratory excavations to a compacted state. Variations in natural soil density and in compacted fill density render shrinkage value estimates very approximate. As an example, the contractor can compact the fill to a dry density of 90 percent or higher of the laboratory maximum dry density. Thus, the contractor has an approximately 10 percent range of control over the fill volume. Based on our experience and the densities measured during our investigation, the shrinkage of onsite topsoil and older alluvial fan deposits is anticipated to be less than 5 percent when compacted to at least 90 percent of the laboratory maximum dry density. Please note that this estimate is for preliminary quantity estimates only. Due to the variations in the actual shrinkage/bulking factors, a balance area should be provided to accommodate variations.

8.6 Utility Trench Backfill

- 8.6.1 Utility trenches should be properly backfilled in accordance with the requirements of city of Menifee and the latest edition of the *Standard Specifications for Public Works Construction* (Greenbook). The pipes should be bedded with well graded crushed rock or clean sands (Sand Equivalent greater than 30) to a depth of at least one foot over the pipe. The bedding material must be inspected and approved in writing by the Geotechnical Engineer (a representative of Geocon). We recommend that jetting only be performed if trench wall soils have an SE of 15 or greater. The use of well graded crushed rock is only acceptable if used in conjunction with filter fabric to prevent the gravel from having direct contact with soil. The remainder of the trench backfill may be derived from onsite soil or approved import soil, compacted as necessary, until the required compaction is obtained. The use of 2-sack slurry and controlled low strength material (CLSM) are also acceptable as backfill. However, consideration should be given to the possibility of differential settlement where the slurry ends and earthen backfill begins. These transitions should be minimized and additional stabilization should be considered at these transitions.
- 8.6.2 In accordance with Eastern Municipal Water District (EMWD) requirements, utility excavation bottoms must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon), prior to placing bedding materials, fill, gravel, concrete, or geogrid.
- 8.6.3 As discussed in the *Groundwater* section of this report (see Section 7), groundwater was not encountered during this or the previous geotechnical investigation. The groundwater depths recorded during the explorations are representative of the groundwater conditions at the times of exploration and may not be representative of the groundwater regime including seasonal and long-term cyclical fluctuations. Furthermore, Geocon is not aware of any long-term monitoring data of the groundwater conditions across the site.
- 8.6.4 Recommendations for *Temporary Excavations* and *Shoring* are provided in Sections 10.13 and 10.14.

8.7 Foundation and Concrete Slabs-On-Grade Recommendations

- 8.7.1 We understand the proposed development has not yet been finalized. The foundation recommendations presented herein are for the proposed gas station convenience store and car wash, and a fast food restaurant. The proposed single-story commercial structures may be supported on conventional shallow foundations with a concrete slab-on-grade.
- 8.7.2 Foundations for the buildings may consist of either continuous strip footings and/or isolated spread footings. Conventionally reinforced continuous footings should be at least 12 inches wide and extend at least 18 inches below lowest adjacent pad grade. Isolated spread footings

should have a minimum width of 24 inches and should extend at least 18 inches below lowest adjacent pad grade.

- 8.7.3 Foundations may be designed for an allowable soil bearing pressure of 3,500 pounds per square foot (psf) (dead plus live load). This value may be increased by 800 psf for each additional foot in depth and 350 psf for each additional foot of width to a maximum value of 4,500 psf. The allowable bearing pressure may be increased by one-third for transient loads due to wind or seismic forces.
- 8.7.4 The maximum expected static settlement for a single-story commercial structure supported on a conventional foundation system deriving support in engineered fill is estimated to be less than ½ inch and to occur below the heaviest loaded structural element. Settlement of the foundation system is expected to occur on initial application of loading. Differential settlement is not expected to exceed ¼ inch over 20 feet.
- 8.7.5 Steel reinforcement for continuous footings should consist of at least four No. 4 steel reinforcing bars placed horizontally in the footings, two near the top and two near the bottom. Steel reinforcement for the spread footings should be designed by the project structural engineer.
- 8.7.6 If depth increases are utilized for the exterior wall footings, this office should be provided a copy of the final construction plans so that the excavation recommendations presented herein could be properly reviewed and revised if necessary.
- 8.7.7 The embedment depths should be measured from the lowest adjacent pad grade for both interior and exterior footings. Figure 3 presents a wall/column footing dimension detail depicting lowest adjacent pad grade.
- 8.7.8 Foundations near slopes should be deepened such that the bottom outside edge of the footing is at least 7 feet horizontally from the face of the slope.
- 8.7.9 The above foundation dimensions and minimum reinforcement recommendations are based on soil conditions and building code requirements only, and are not intended to be used in lieu of those required for structural purposes.
- 8.7.10 Foundation excavations should be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon West, Inc.), prior to the placement of reinforcing steel and concrete to verify that the exposed soil conditions are consistent with those anticipated. If unanticipated soil conditions are encountered, foundation modifications may be required.

- 8.7.11 Resistance to lateral loading may be provided by friction acting at the base of foundations, slabs and by passive earth pressure. An allowable coefficient of friction of 0.35 may be used with the dead load forces in newly compacted fill.
- 8.7.12 Passive earth pressure for the sides of foundations and slabs poured against newly placed engineered fill may be computed as an equivalent fluid having a density of 260 pounds per cubic foot with a maximum earth pressure of 2,600 pounds per square foot. When combining passive and friction for lateral resistance, the passive component should be reduced by one-third.
- 8.7.13 Special subgrade presaturation is not deemed necessary prior to placing concrete; however, the exposed foundation and slab subgrade soil should be moisture conditioned, as necessary, to maintain a moist condition as would be expected in such concrete placement.
- 8.7.14 Slabs-on-grade that may receive moisture-sensitive floor coverings or may be used to store moisture-sensitive materials should be underlain by a vapor retarder placed directly beneath the slab. The vapor retarder and acceptable permeance should be specified by the project architect or developer based on the type of floor covering that will be installed. The vapor retarder design should be consistent with the guidelines presented in Section 9.3 of the American Concrete Institute's (ACI) Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials (ACI 302.2R-06) and should be installed in general conformance with ASTM E1643 (latest edition) and the manufacturer's recommendations. A minimum thickness of 15 mils extruded polyolefin plastic is recommended; vapor retarders which contain recycled content or woven materials are not recommended. The vapor retarder should have a permeance of less than 0.01 perms demonstrated by testing before and after mandatory conditioning. The vapor retarder should be installed in direct contact with the concrete slab with proper perimeter seal. If the California Green Building Code requirements apply to this project, the vapor retarder should be underlain by 4 inches of clean aggregate. It is important that the vapor retarder be puncture resistant since it will be in direct contact with angular gravel. As an alternative to the clean aggregate suggested in the Green Building Code, it is our opinion that the concrete slab-on-grade may be underlain by a vapor retarder over 4 inches of clean sand (sand equivalent greater than 30), since the sand will serve as a capillary break and will minimize the potential for punctures and damage to the vapor barrier.
- 8.7.15 The bedding sand thickness should be determined by the project foundation engineer, architect, and/or developer. However, we should be contacted to provide recommendations if the bedding sand is thicker than 6 inches. Placement of 3 inches and 4 inches of sand is

common practice in southern California for 5-inch and 4-inch thick slabs, respectively. The foundation engineer should provide appropriate concrete mix design criteria and curing measures that may be utilized to assure proper curing of the slab to reduce the potential for rapid moisture loss and subsequent cracking and/or slab curl. We suggest that the foundation engineer present concrete mix design and proper curing methods on the foundation plans. It is critical that the foundation contractor understands and follows the recommendations presented on the foundation plans.

8.7.16 The recommendations of this report are intended to reduce the potential for cracking of slabs due to expansive soil (if present), differential settlement of existing soil or soil with varying thicknesses. However, even with the incorporation of the recommendations presented herein, foundations, walls, and slabs-on-grade placed on such conditions may still exhibit some cracking due to soil movement and/or shrinkage. The occurrence of concrete shrinkage cracks is independent of the supporting soil characteristics. Their occurrence may be reduced and/or controlled by limiting the slump of the concrete, proper concrete placement and curing, and by the placement of crack control joints at periodic intervals, in particular, where re-entrant slab corners occur.

8.7.17 Geocon should be consulted to provide additional design parameters as required by the structural engineer.

8.8 Exterior Concrete Flatwork

8.8.1 Exterior concrete flatwork not subject to vehicular traffic should be constructed in accordance with the recommendations herein assuming the subgrade materials possess an Expansion Index of 50 or less. Subgrade soils should be compacted to 90 percent relative compaction. Slab panels should be a minimum of 4 inches thick and when in excess of 8 feet square should be reinforced with 6x6-W2.9/W2.9 (6x6-6/6) welded wire mesh or No. 3 reinforcing bars spaced 18 inches center-to-center in both directions to reduce the potential for cracking. In addition, concrete flatwork should be provided with crack control joints to reduce and/or control shrinkage cracking. Crack control spacing should be determined by the project structural engineer based upon the slab thickness and intended usage. Criteria of the American Concrete Institute (ACI) should be taken into consideration when establishing crack control spacing. Subgrade soil for exterior slabs not subjected to vehicle loads should be compacted in accordance with criteria presented in the grading section prior to concrete placement. Subgrade soil should be properly compacted and the moisture content of subgrade soil should be verified prior to placing concrete. Base materials will not be required below concrete improvements.

- 8.8.2 Even with the incorporation of the recommendations of this report, the exterior concrete flatwork has a potential to experience some uplift due to expansive soil beneath grade or differential settlement. The steel reinforcement should overlap continuously in flatwork to reduce the potential for vertical offsets within flatwork.
- 8.8.3 Where exterior flatwork abuts the structure at entrant or exit points, the exterior slab should be dowelled into the structure's foundation stem wall. This recommendation is intended to reduce the potential for differential elevations that could result from differential settlement or minor heave of the flatwork. Dowelling details should be designed by the project structural engineer.
- 8.8.4 The recommendations presented herein are intended to reduce the potential for cracking of exterior slabs as a result of differential movement. However, even with the incorporation of the recommendations presented herein, slabs-on-grade will still crack. The occurrence of concrete shrinkage cracks is independent of the soil supporting characteristics. Their occurrence may be reduced and/or controlled by limiting the slump of the concrete, the use of crack control joints and proper concrete placement and curing. Crack control joints should be spaced at intervals no greater than 12 feet. Literature provided by the Portland Concrete Association (PCA) and American Concrete Institute (ACI) present recommendations for proper concrete mix, construction, and curing practices, and should be incorporated into project construction.

8.9 Conventional Retaining Walls

- 8.9.1 The recommendations presented herein are generally applicable to the design of rigid concrete or masonry retaining walls having a maximum height of 6 feet. If walls higher than 6 feet or other types of walls are planned, Geocon should be consulted for additional recommendations.
- 8.9.2 Retaining wall foundations may be designed in accordance with the recommendations provided in the *Foundation and Concrete Slabs-On-Grade Recommendations* section of this report (see Section 8.6).
- 8.9.3 Retaining walls with a level backfill surface that are not restrained at the top should be designed utilizing a triangular distribution of pressure (active pressure) of 35 pcf. Restrained walls are those that are not allowed to rotate more than $0.001H$ (where H equals the height of the retaining portion of the wall in feet) at the top of the wall. Where walls are restrained from movement at the top and are retaining a level soil backfill, walls may be designed utilizing a triangular distribution of pressure (at-rest pressure) of 50 pcf. If restrained walls

which retain sloping backfill are planned, Geocon should be contacted for additional recommendations.

- 8.9.4 The wall pressures provided above assume that the retaining wall will be properly drained preventing the buildup of hydrostatic pressure. If retaining wall drainage is not implemented, the equivalent fluid pressure to be used in design of undrained walls is 90 pcf. The value includes hydrostatic pressures plus buoyant lateral earth pressures.
- 8.9.5 The wall pressures provided above assume that the proposed retaining walls will support relatively undisturbed alluvial soils or engineered fill derived from onsite soils, with an EI of 50 or less. If import soil will be used to backfill proposed retaining walls, revised earth pressures may be required to account for the geotechnical properties of the import soil used as engineered fill. This should be evaluated once the use of import soil is established. All imported fill shall be observed, tested, and approved by Geocon West, Inc. prior to bringing soil to the site.
- 8.9.6 Additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic, or adjacent structures. Once the design becomes more finalized, an addendum letter can be prepared revising recommendations and addressing specific surcharge conditions throughout the project, if necessary.
- 8.9.7 In addition to the recommended earth pressure, the upper 10 feet of the retaining walls adjacent to the street or driveway areas should be designed to resist a uniform lateral pressure of 100 psf, acting as a result of an assumed 300 psf surcharge behind the wall due to normal street traffic. If the traffic is kept back at least 10 feet from the walls, the traffic surcharge may be neglected.
- 8.9.8 The structural engineer should determine the seismic design category for the project. If the project possesses a seismic design category of D, E, or F, proposed retaining walls in excess of 6 feet in height should be designed with seismic lateral pressure (Section 1803.5.12 of the 2016 CBC). The seismic load should be applied in addition to the active earth pressure. The seismic load exerted on the wall should be a triangular distribution with a pressure of $10H$ (where H is the height of the wall, in feet, resulting in pounds per square foot [psf]) exerted at the bottom of the wall and zero at the top of the wall. The earth pressure is based on half of two thirds of PGA_M calculated from ASCE 7-10 Section 11.8.3.
- 8.9.9 Unrestrained walls will move laterally when backfilled and loading is applied. The amount of lateral deflection is dependent on the wall height, the type of soil used for backfill, and loads acting on the wall. The retaining walls and improvements above the retaining walls

should be designed to incorporate an appropriate amount of lateral deflection as determined by the structural engineer.

- 8.9.10 Retaining walls should be provided with a drainage system adequate to prevent the buildup of hydrostatic forces and waterproofed as required by the project architect. The soil immediately adjacent to the backfilled retaining wall should be composed of free draining material completely wrapped in Mirafi 140 (or equivalent) filter fabric for a lateral distance of 1 foot for the bottom two-thirds of the height of the retaining wall. The upper one-third should be backfilled with less permeable compacted fill to reduce water infiltration. The use of drainage openings through the base of the wall (weep holes) is not recommended where the seepage could be a nuisance or otherwise adversely affect the property adjacent to the base of the wall. The recommendations herein assume a properly compacted backfill (EI of 90 or less) with no hydrostatic forces or imposed surcharge load. Figure 4 presents a typical retaining wall drainage detail. If conditions different than those described are expected or if specific drainage details are desired, Geocon should be contacted for additional recommendations.

8.10 Preliminary Pavement Recommendations

- 8.10.1 The final pavement sections for roadways should be based on the R-Value of the subgrade soils encountered at final subgrade elevation. Streets should be designed in accordance with the County of Riverside *Design Standards* when final Traffic Indices and R-Value test results of subgrade soil are completed. Laboratory testing indicated that the site soils exhibited an R-value of 14. Preliminary flexible pavement sections are presented in Table 8.10.1.

**TABLE 8.10.1
PRELIMINARY FLEXIBLE PAVEMENT SECTIONS**

Location	Assumed Traffic Index	Assumed Subgrade R-Value	Asphalt Concrete (inches)	Crushed Aggregate Base (inches)
Light-Duty Vehicles – Local Street	5.5	14	4.0	8.0
Heavy Truck Vehicles – Industrial Collector	7.5	14	4.5	14.0

- 8.10.2 The upper 12 inches of the subgrade soil should be compacted to a dry density of at least 95 percent of the laboratory maximum dry density at optimum moisture content beneath pavement sections.

- 8.10.3 The crushed aggregated base and asphalt concrete materials should conform to Section 200-2.2 and Section 203-6, respectively, of the *Standard Specifications for Public Works Construction* (Greenbook) and the latest edition of the City of Menifee *Design Standards*. Base materials should be compacted to a dry density of at least 95 percent of the laboratory maximum dry density at optimum moisture content. Asphalt concrete should be compacted to a density of 95 percent of the laboratory Hveem density in accordance with ASTM D 1561.
- 8.10.4 A rigid Portland cement concrete (PCC) pavement section should be placed in driveway aprons and cross gutters and where desired to support heavy vehicle loads. We calculated the rigid pavement section in general conformance with the procedure recommended by the American Concrete Institute report ACI 330R, *Guide for Design and Construction of Concrete Parking Lots* using the parameters presented in Table 8.10.4.

**TABLE 8.10.4
RIGID PAVEMENT DESIGN PARAMETERS**

Design Parameter	Design Value
Modulus of subgrade reaction, k	100 pci
Modulus of rupture for concrete, M_R	550 psi
Traffic Category, TC	C and D
Average daily truck traffic, ADTT	100 and 700

- 8.10.5 Based on the criteria presented herein, the PCC pavement sections should have a minimum thickness as presented in Table 8.10.5.

**TABLE 8.10.5
RIGID PAVEMENT RECOMMENDATIONS**

Location	Portland Cement Concrete (inches)
Roadways (TC=C)	6.5
Truck Areas (TC=D)	8.0

- 8.10.6 The PCC pavement should be placed over subgrade soil that is compacted to a dry density of at least 95 percent of the laboratory maximum dry density at optimum moisture content. This pavement section is based on a minimum concrete compressive strength of approximately 3,500 psi (pounds per square inch). Base material will not be required beneath concrete improvements.
- 8.10.7 A thickened edge or integral curb should be constructed on the outside of concrete slabs subjected to wheel loads. The thickened edge should be 1.2 times the slab thickness or a

minimum thickness of 2 inches, whichever results in a thicker edge, and taper back to the recommended slab thickness 4 feet behind the face of the slab (e.g., a 7-inch-thick slab would have a 9-inch-thick edge). Reinforcing steel will not be necessary within the concrete for geotechnical purposes with the possible exception of dowels at construction joints as discussed herein.

- 8.10.8 To control the location and spread of concrete shrinkage cracks, crack-control joints (weakened plane joints) should be included in the design of the concrete pavement slab. Crack-control joints should not exceed 30 times the slab thickness with a maximum spacing of 15 feet for the 7-inch-thick or greater slabs (e.g., a 9-inch-thick slab would have a 15-foot spacing pattern). The depth of the crack-control joints and need for sealing of the joints should be determined by the referenced ACI report.
- 8.10.9 To provide load transfer between adjacent pavement slab sections, a butt-type construction joint should be constructed. The butt-type joint should be thickened by at least 20 percent at the edge and taper back at least 4 feet from the face of the slab. As an alternative to the butt-type construction joint, dowelling can be used between construction joints for pavements of 7 inches or thicker as discussed in the referenced ACI guide.
- 8.10.10 The performance of pavement is highly dependent on providing positive surface drainage away from the edge of the pavement. Ponding of water on or adjacent to the pavement surfaces will likely result in pavement distress and subgrade failure. Drainage from landscaped areas should be directed to controlled drainage structures. Landscape areas adjacent to the edge of asphalt pavements are not recommended due to the potential for surface or irrigation water to infiltrate the underlying permeable aggregate base and cause distress. Where such a condition cannot be avoided, consideration should be given to incorporating measures that will significantly reduce the potential for subsurface water migration into the aggregate base. If planter islands are planned, the perimeter curb should extend at least 6 inches below the level of the base materials.

8.11 Temporary Excavations

- 8.11.1 Excavations up to 5 feet in vertical height may be required during grading operations. The contractor's competent person should evaluate the necessity for layback of vertical cut areas. Vertical excavations up to 5 feet may be attempted where loose soils or caving sands are not present, and where not surcharged by existing structures or vehicle/construction equipment loads.
- 8.11.2 Vertical excavations greater than 5 feet may require sloping or slot-cutting measures in order to provide a stable excavation. It is anticipated that sufficient space is available to complete

the majority of the required earthwork for this project using sloping measures. If necessary, shoring recommendations will be provided in an addendum.

- 8.11.3 Where sufficient space is available, temporary unsurcharged embankments may be sloped back at a uniform 1:1 (h:v) slope gradient or flatter. A uniform slope does not have a vertical portion.
- 8.11.4 Where sloped embankments are utilized, the top of the slope should be barricaded to prevent vehicles and storage loads at the top of the slope within a horizontal distance equal to the height of the slope. If the temporary construction embankments are to be maintained during the rainy season, berms are suggested along the tops of the slopes where necessary to prevent runoff water from entering the excavation and eroding the slope faces. The contractor's personnel should inspect the soil exposed in the cut slopes during excavation so that modifications of the slopes can be made if variations in the soil conditions occur. Excavations should be stabilized within 30 days of initial excavation.

8.12 Site Drainage and Moisture Protection

- 8.12.1 Adequate site drainage is critical to reduce the potential for differential soil movement, erosion and subsurface seepage. Under no circumstances should water be allowed to pond adjacent to footings. The site should be graded and maintained such that surface drainage is directed away from structures in accordance with 2016 CBC 1804.4 or other applicable standards. In addition, surface drainage should be directed away from the top of slopes into swales or other controlled drainage devices. Roof and pavement drainage should be directed into conduits that carry runoff away from the proposed structure.
- 8.12.2 Underground utilities should be leak free. Utility and irrigation lines should be checked periodically for leaks, and detected leaks should be repaired promptly. Detrimental soil movement could occur if water is allowed to infiltrate the soil for prolonged periods of time.
- 8.12.3 Landscaping planters adjacent to paved areas are not recommended due to the potential for surface or irrigation water to infiltrate the pavement's subgrade and base course. We recommend that area drains to collect excess irrigation water and transmit it to drainage structures or impervious above-grade planter boxes be used. In addition, where landscaping is planned adjacent to the pavement, we recommend construction of a cutoff wall along the edge of the pavement that extends at least 6 inches below the bottom of the base material.

8.13 Plan Review

- 8.13.1 Geocon should review the grading and structural foundation plans for the project prior to final submittal. Additional analyses may be required after review of the project plans.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

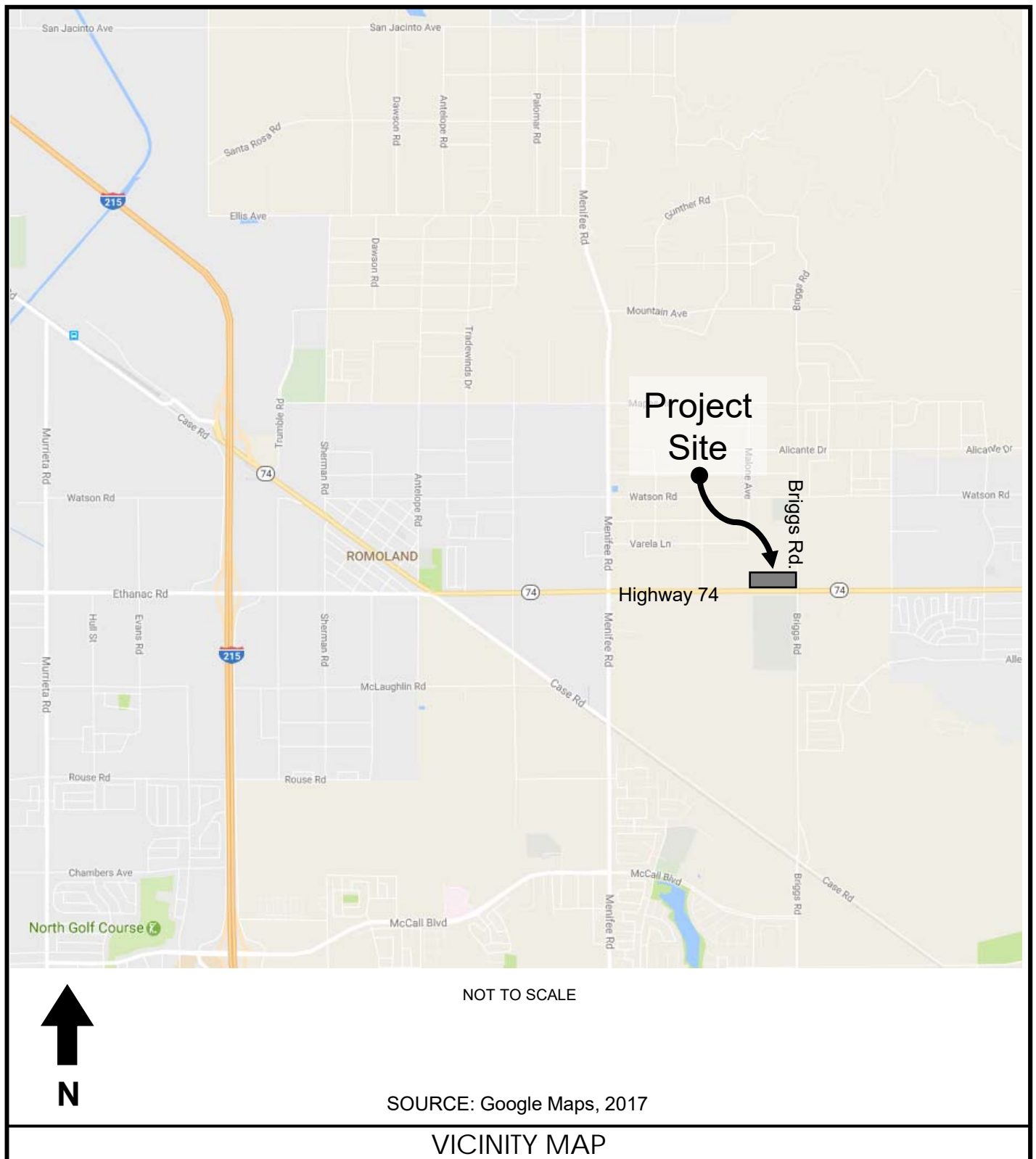
1. The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geocon should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous materials was not part of the scope of services provided by Geocon.
2. This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.
3. The findings of this report are valid as of the date of this report. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.
4. The firm that performed the geotechnical investigation for the project should be retained to provide testing and observation services during construction to provide continuity of geotechnical interpretation and to check that the recommendations presented for geotechnical aspects of site development are incorporated during site grading, construction of improvements, and excavation of foundations. If another geotechnical firm is selected to perform the testing and observation services during construction operations, that firm should prepare a letter indicating their intent to assume the responsibilities of project geotechnical engineer of record. A copy of the letter should be provided to the regulatory agency for their records. In addition, that firm should provide revised recommendations concerning the geotechnical aspects of the proposed development, or a written acknowledgement of their concurrence with the recommendations presented in our report. They should also perform additional analyses deemed necessary to assume the role of Geotechnical Engineer of Record.

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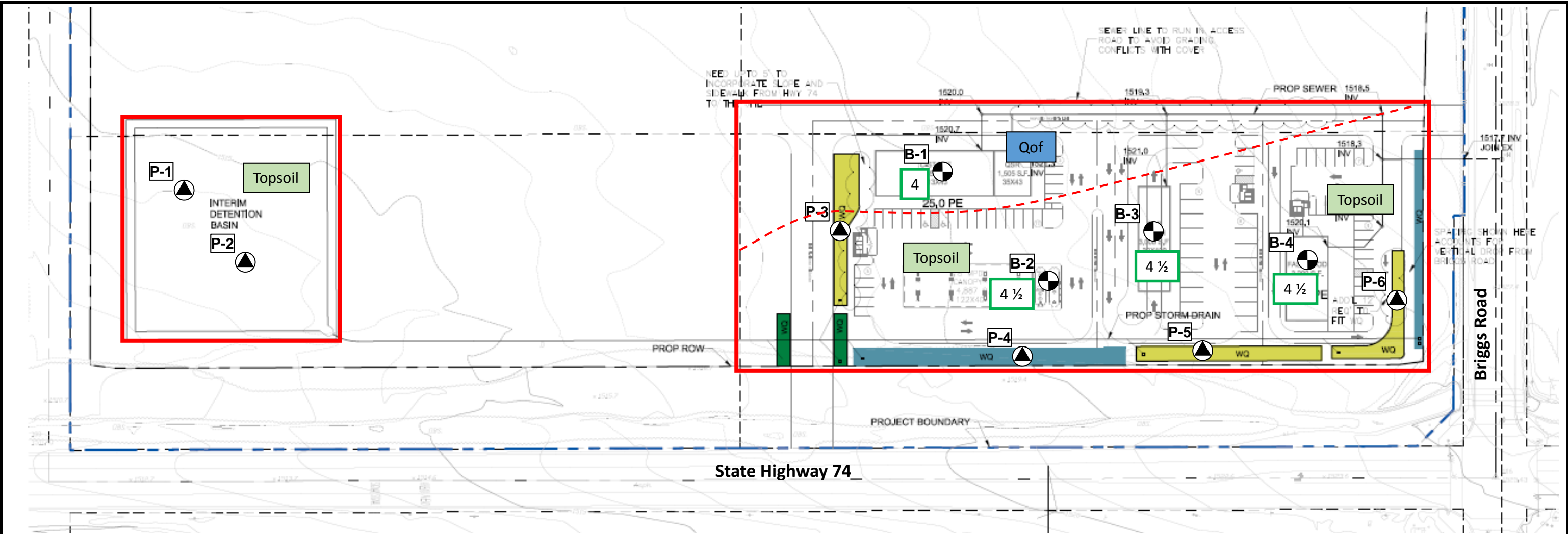
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MR 56 COMMERCIAL SITE
NWC HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

APRIL, 2017

PROJECT NO. T2765-22-01

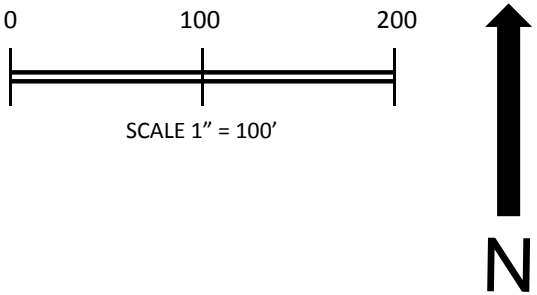
FIG. 1



Source: Anderson Consulting Engineers, Inc., undated.

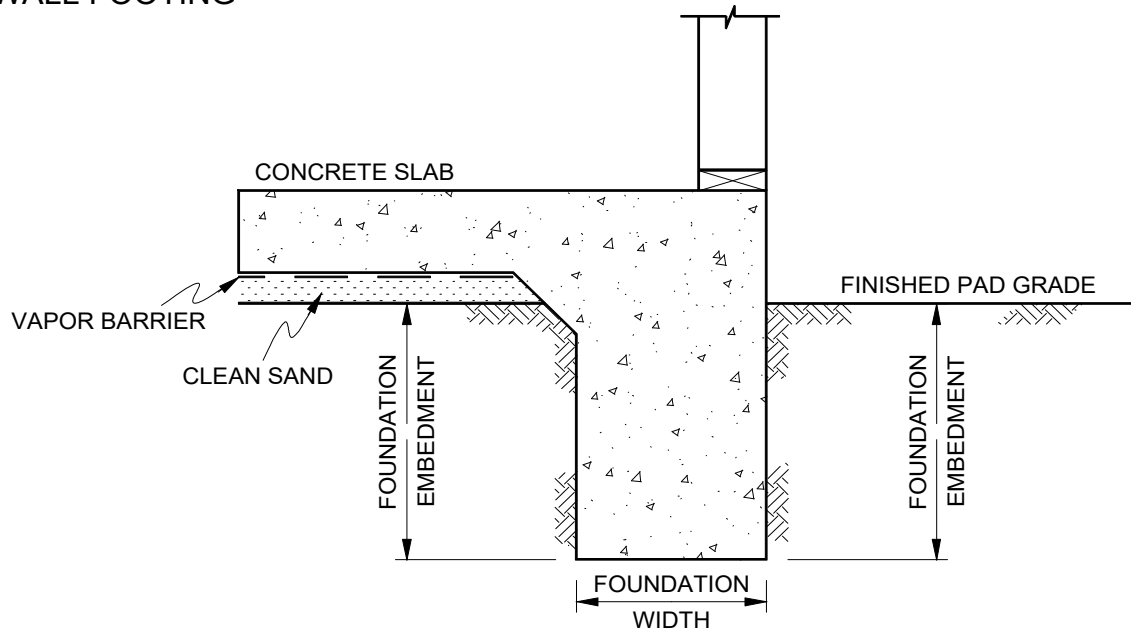
GEOCON LEGEND
Locations are approximate

- B-4**
4 ½ BORING, WITH ANTICIPATED REMOVAL DEPTHS IN FEET
- P-6** PERCOLATION TEST
- Topsoil** TOPSOIL
- Qof** ALLUVIUM
- GEOLOGIC CONTACT
- LIMITS OF THIS REPORT

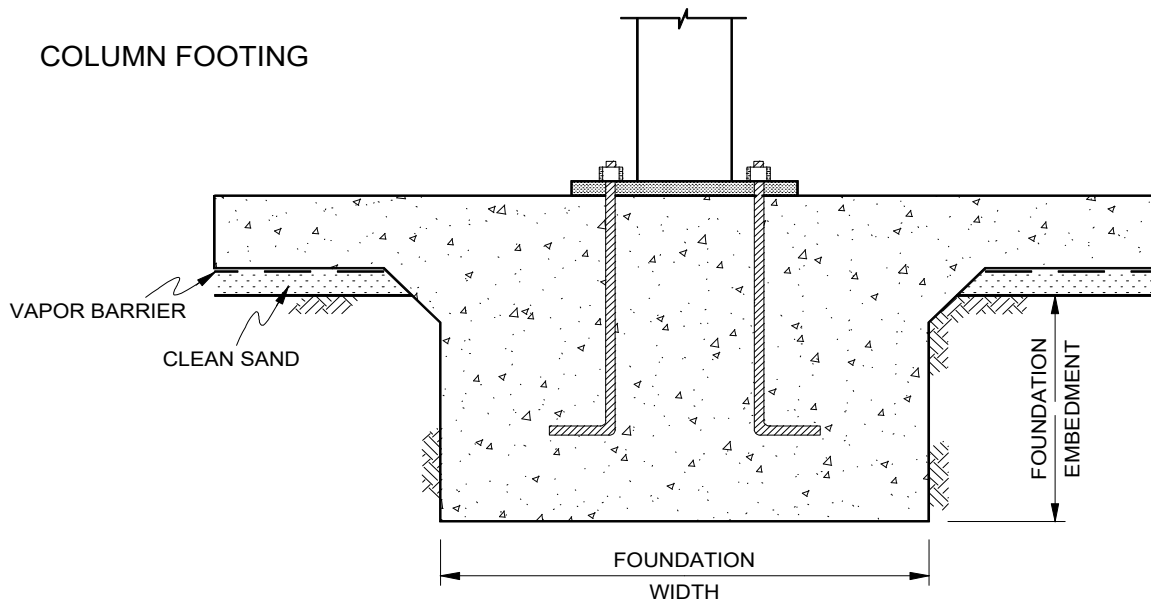


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			MR 56 COMMERCIAL SITE NWC HIGHWAY 74 AND BRIGGS ROAD MENIFEE, CALIFORNIA		
AMO			APRIL, 2017	PROJECT NO. T2765-22-01	FIG. 2

WALL FOOTING



COLUMN FOOTING



NOTE: SEE REPORT FOR FOUNDATION WIDTH AND DEPTH RECOMMENDATION

NO SCALE

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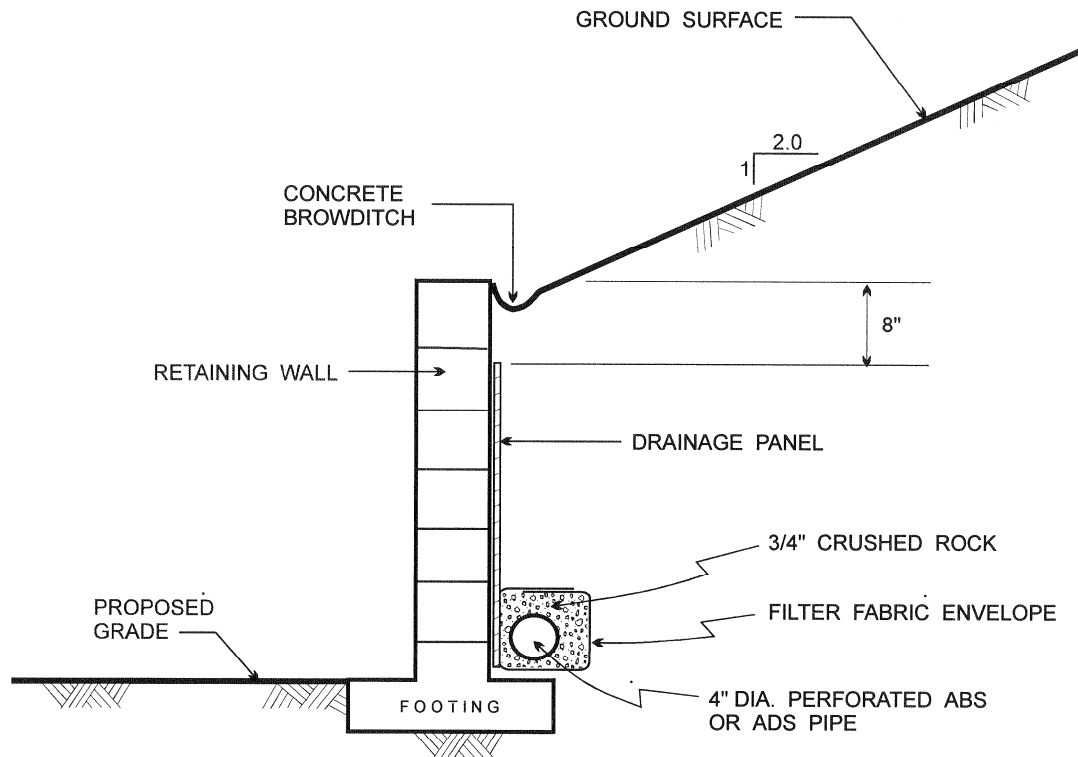
WALL / COLUMN FOOTING DETAIL

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APRIL, 2017

PROJECT NO. T2765-22-01

FIG. 3



NOTES:

- 1.....WALL DRAINAGE PANELS SHOULD CONSISTS OF MIRADRAIN 6000 OR EQUIVALENT
- 2.....FILTER FABRIC SHOULD CONSIST OF MIRAFI 140N OR APPROVED EQUIVALENT
- 3.....VOLUME OF CRUSHED ROCK SHOULD BE AT LEAST 1 CUBIC FOOT PER FOOT OF PIPE
- 4.....CONCRETE BROWDITCH RECOMMENDED FOR SLOPE HEIGHTS GREATER THAN 6 FEET

NO SCALE

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WALL DRAINAGE DETAL

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PROJECT NO. T2765-22-01

FIG. 4

APPENDIX

A

APPENDIX A

EXPLORATORY EXCAVATIONS

We performed the field investigation on March 28, 2017. Our subsurface exploration consisted of excavating 4 geotechnical borings and 6 percolation test holes. The borings were excavated with a truck-mounted hollow stem auger drilling machine to a maximum depth of approximately 50 feet below existing ground surface. Representative and relatively undisturbed samples were obtained by driving a 3-inch O. D., California Modified Sampler into the “undisturbed” soil mass with blows from a 140 lb. auto-hammer. The California Modified Sampler was equipped with 1-inch high by 2³/₈-inch diameter brass sampler rings to facilitate removal and testing. Bulk samples were also obtained.

The soil conditions encountered in the borings were visually examined, classified, and logged in general accordance with the Unified Soil Classification System (USCS). Logs of the borings are presented on Figures A-1 through A-10. The logs depict the soil and geologic conditions encountered and the depth at which samples were obtained. The approximate locations of the borings are indicated the *Geotechnical Map*, Figure 2.

Percolation testing was performed on March 29, 2017 (P-1 through P-6) in accordance with the Riverside County Handbook. The percolation test data is presented on Figures A-11 through A-16.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B-1 ELEV. (MSL.) <u>1520</u> DATE COMPLETED <u>03/28/2017</u> EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>A. ORTON</u>	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	B-1@0-5'			SM	MATERIAL DESCRIPTION TOPSOIL Silty SAND, medium dense, moist, dark brown; fine to medium sand; trace mica; roots near surface			
2	B-1@2.5'			SM	OLD ALLUVIAL FAN DEPOSITS (Qof) Silty SAND, medium dense, moist, dark brown; fine to medium sand; trace coarse sand; trace clay; trace calcium carbonate stringers	42	128.6	12.5
4	B-1@5'				-Becomes very dense, brown; fine to coarse sand; trace mica	82/11"	133.3	10.4
6	B-1@7.5'				-Becomes slightly moist; trace calcium carbonate stringers	50/6"	117.7	6.7
8	B-1@10'					69/11"	122.5	11.4
10	B-1@15'				-Trace gravel	50/5"	113.7	8.7
12								
14								
16	B-1@20'				-No observed calcium carbonate stringers	50/6"	129.6	4.3
18								
20								
Total depth 21.0 feet Groundwater not encountered Penetration resistance for 140 lb. hammer falling 30" by auto-hammer Backfilled with cuttings on 03/28/2017								

Figure A-1,
Log of Boring B-1, Page 1 of 1

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SAMPLE SYMBOLS					
	... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
	... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.






















DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B-2 ELEV. (MSL.) <u>1521</u> DATE COMPLETED <u>03/28/2017</u> EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>A. ORTON</u>	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	B-2@0-5'			SM	TOPSOIL Silty SAND, medium dense, slightly moist, dark brown; fine to medium sand; trace coarse sand; trace gravel; roots near surface			
2	B-2@2.5'					23	122.4	10.2
4	B-2@5'			SM	OLD ALLUVIAL FAN DEPOSITS (Qof) Silty SAND, very dense, moist, brown; fine to coarse sand; trace mica; trace clay	94/10"	122.9	12.9
6								
8	B-2@7.5'				-Becomes slightly moist	50/6"	122.8	6.1
10	B-2@10'				-Trace gravel	50/6"	137.8	6.4
12								
14								
16	B-2@15'				-Becomes medium dense, moist; fine to medium sand; trace coarse sand; trace mica; trace gravel; calcium carbonate stringers	39	115.4	8.7
18								
20	B-2@20'				-Becomes very dense, fine to coarse sand; trace mica	50/4"	129.2	6.3
22								
24								
26	B-2@25'					50/6"	113.2	6.3
28								

Figure A-2,
Log of Boring B-2, Page 1 of 2

T2765-22-01 MR 56 COMMERCIAL.GPJ

SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.










DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B-2 ELEV. (MSL.) <u>1521</u> DATE COMPLETED <u>03/28/2017</u> EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>A. ORTON</u>	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
30	B-2@30'			SM	MATERIAL DESCRIPTION Silty SAND, very dense, slightly moist, grayish brown; fine to coarse sand -Becomes brown; trace mica -Trace gravel	50/4"	121.9	8.6
32								
34								
36	B-2@35'					50/4"	126.7	7.3
38								
40	B-2@40'				MATERIAL DESCRIPTION Silty SAND, very dense, slightly moist, grayish brown; fine to coarse sand -Becomes brown; trace mica -Trace gravel	50/6"	122.1	7.3
42								
44								
46	B-2@45'					50/5"	121.2	7.3
48								
50	B-2@50'				Total depth 50.3 feet Groundwater not encountered Penetration resistance for 140 lb. hammer falling 30" by auto-hammer Backfilled with cuttings on 03/28/2017	50/4"	128.7	3.8

Figure A-2,
Log of Boring B-2, Page 2 of 2

T2765-22-01 MR 56 COMMERCIAL.GPJ

SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B-3 ELEV. (MSL.) <u>1523</u> DATE COMPLETED <u>03/28/2017</u> EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>A. ORTON</u>	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	B-3@0-5'			SM	TOPSOIL Silty SAND, medium dense, moist, dark brown; fine to medium sand; trace coarse sand; trace mica; roots near surface			
2	B-3@2.5'			SC	Clayey SAND, medium dense, moist, dark brown; fine to coarse sand; trace gravel	35		
4	B-3@5'				OLD ALLUVIAL FAN DEPOSITS (Qof) Silty SAND, very dense, moist, brown; fine to coarse sand; large mica flakes	50/5"	127.8	9.9
6								
8	B-3@7.5'				-Calcium carbonate veins to 1/4" diameter	50/6"	126.4	9.3
10	B-3@10'				-Becomes dense, slightly moist; trace gravel; trace mica	52	132.6	5.6
12								
14								
16	B-3@15'				-Becomes very dense	50/6"	115.3	6.5
18								
20	B-3@20'					50/6"	124.8	8.0
Total depth 21.0 feet Groundwater not encountered Penetration resistance for 140 lb. hammer falling 30" by auto-hammer Backfilled with cuttings on 03/28/2017								

Figure A-3,
Log of Boring B-3, Page 1 of 1

T2765-22-01 MR 56 COMMERCIAL.GPJ

SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.














DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B-4 ELEV. (MSL.) <u>1525</u> DATE COMPLETED <u>03/28/2017</u> EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>A. ORTON</u>	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	B-4@0-5'			SM	MATERIAL DESCRIPTION			
2	B-4@2.5'			SM	TOPSOIL Silty SAND, medium dense, moist, dark brown; fine to medium sand; trace coarse sand; roots near surface	28	124.0	9.3
4	B-4@5'			SM	OLD ALLUVIAL FAN DEPOSITS (Qof) Silty SAND, very dense, slightly moist, brown; fine to coarse sand	50/5"	117.4	7.8
6	B-4@7.5'				-Trace mica	50/5"	120.8	6.3
8	B-4@10'					50/5"	123.5	9.1
10	B-4@15'				-Trace calcium carbonate stringers	50/6"	111.6	8.6
12	B-4@20'					50/5"	110.4	6.1
14					Total depth 20.9 feet Groundwater not encountered Penetration resistance for 140 lb. hammer falling 30" by auto-hammer Backfilled with cuttings on 03/28/2017			
16								
18								
20								

Figure A-4,
Log of Boring B-4, Page 1 of 1







T2765-22-01 MR 56 COMMERCIAL.GPJ

SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

T2765-22-01 MR 56 COMMERCIAL.GPJ

SAMPLE SYMBOLS







 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

GEOCON

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING P-2 ELEV. (MSL.) <u>1514</u> DATE COMPLETED <u>03/28/2017</u> EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>A. ORTON</u>	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					MATERIAL DESCRIPTION			
2				SM	TOPSOIL Silty SAND, medium dense, slightly moist, dark brown; fine to coarse sand; trace gravel; trace mica; roots near surface			
4	P-2@3.5' P-2@4'			SM	OLD ALLUVIAL FAN DEPOSITS (Qof) Silty SAND, medium dense, moist, dark brown; fine to coarse sand; trace mica Total depth 5 feet Groundwater not encountered Penetration resistance for 140 lb. hammer falling 30" by auto-hammer Set for percolation testing on 03/28/2017	31		

Figure A-6,
Log of Boring P-2, Page 1 of 1

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SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING P-3 ELEV. (MSL.) <u>1519</u> DATE COMPLETED <u>03/28/2017</u> EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>A. ORTON</u>	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					MATERIAL DESCRIPTION			
2				SM	TOPSOIL Silty SAND, medium dense, moist, brown; fine to medium sand; trace coarse sand; roots near surface			
4	P-3@3.5' P-3@4'			SM	OLD ALLUVIAL FAN DEPOSITS (Qof) Silty SAND, medium dense, moist, brown; fine to medium sand; trace coarse sand; trace gravel; trace clay Total depth 5 feet Groundwater not encountered Penetration resistance for 140 lb. hammer falling 30" by auto-hammer Set for percolation testing on 03/28/2017	41		

Figure A-7,
Log of Boring P-3, Page 1 of 1

T2765-22-01 MR 56 COMMERCIAL.GPJ


SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING P-4 ELEV. (MSL.) <u>1520</u> DATE COMPLETED <u>03/28/2017</u> EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>A. ORTON</u>	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					MATERIAL DESCRIPTION			
2				SM	TOPSOIL Silty SAND, loose, slightly moist, dark brown; fine to medium sand; trace coarse sand; trace mica; roots near surface			
4	P-4@3.5' P-4@4'				-Becomes moist; fine to coarse sand	13		
					Total depth 5 feet Groundwater not encountered Penetration resistance for 140 lb. hammer falling 30" by auto-hammer Set for percolation testing on 03/28/2017			

Figure A-8,
Log of Boring P-4, Page 1 of 1

T2765-22-01 MR 56 COMMERCIAL.GPJ





SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING P-5 ELEV. (MSL.) <u>1522</u> DATE COMPLETED <u>03/28/2017</u> EQUIPMENT <u>HOLLOW STEM AUGER</u> BY: <u>A. ORTON</u>	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					MATERIAL DESCRIPTION			
2				SM	TOPSOIL Silty SAND, medium dense, slightly moist, dark brown; fine to coarse sand; roots near surface			
4	P-5@3.5' P-5@4'			ML	OLD ALLUVIAL FAN DEPOSITS (Qof) Sandy SILT, hard, slightly moist, brown; trace mica	78		
					Total depth 5 feet Groundwater not encountered Penetration resistance for 140 lb. hammer falling 30" by auto-hammer Set for percolation testing on 03/28/2017			

Figure A-9,
Log of Boring P-5, Page 1 of 1







T2765-22-01 MR 56 COMMERCIAL.GPJ

SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

T2765-22-01 MR 56 COMMERCIAL.GPJ

SAMPLE SYMBOLS

 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

GEOCON

PERCOLATION TEST REPORT							
Project Name:		MR-56 Commercial		Project No.:		T2765-22-01	
Test Hole No.:		P-1		Date Excavated:		3/28/2017	
Length of Test Pipe:		57.1 inches		Soil Classification:		SM	
Height of Pipe above Ground:		0.0 inches		Presoak Date:		3/28/2017	
Depth of Test Hole:		57.1 inches		Perc Test Date:		3/29/2017	
Check for Sandy Soil Criteria Tested by:				SP		Percolation Tested by: SP	
Water level measured from bottom of hole							
Sandy Soil Criteria Test							
Trial No.	Time	Time Interval	Total Elapsed Time (min)	Initial Water Level (in)	Final Water Level (in)	Δ in Water Level (inches)	Percolation Rate (min/inch)
1	7:40 AM	25	25	45.6	45.1	0.5	52.1
	8:05 AM						
2	8:05 AM	25	50	45.1	43.9	1.2	20.8
	8:30 AM						
			Soil Criteria: Normal				
			Percolation Test				
Reading No.	Time	Time Interval	Total Elapsed Time (min)	Initial Water Head (in)	Final Water Head (in)	Δ in Water Level (inches)	Percolation Rate (min/inch)
1	9:55 AM	30	30	42.5	42.2	0.2	125.0
	10:25 AM						
2	10:25 AM	30	60	42.2	41.8	0.5	62.5
	10:55 AM						
3	10:55 AM	30	90	41.8	41.3	0.5	62.5
	11:25 AM						
4	11:25 AM	30	120	41.3	40.8	0.5	62.5
	11:55 AM						
5	11:55 AM	30	150	40.8	40.3	0.5	62.5
	12:25 PM						
6	12:25 PM	30	180	40.3	40.0	0.4	83.3
	12:55 PM						
7	12:55 PM	30	210	40.0	39.4	0.6	50.0
	1:25 PM						
8	1:25 PM	30	240	40.1	39.6	0.5	62.5
	1:55 PM						
9	1:55 PM	30	270	40.0	39.6	0.4	83.3
	2:25 PM						
10	2:25 PM	30	300	40.3	39.8	0.5	62.5
	2:55 PM						
11	2:55 PM	30	330	39.8	39.4	0.5	62.5
	3:25 PM						
12	3:25 PM	30	360	40.3	39.8	0.5	62.5
	3:55 PM						
Infiltration Rate (in/hr):		0.05					
Radius of test hole (in):		4				Figure A-11	
Average Head (in):		40.1					

PERCOLATION TEST REPORT							
Project Name:		MR-56 Commercial		Project No.:		T2765-22-01	
Test Hole No.:		P-2		Date Excavated:		3/28/2017	
Length of Test Pipe:		56.2 inches		Soil Classification:		SM	
Height of Pipe above Ground:		0.0 inches		Presoak Date:		3/28/2017	
Depth of Test Hole:		56.2 inches		Perc Test Date:		3/29/2017	
Check for Sandy Soil Criteria Tested by:		SP		Percolation Tested by:		SP	
Water level measured from bottom of hole							
Sandy Soil Criteria Test							
Trial No.	Time	Time Interval (min)	Total Elapsed Time (min)	Initial Water Level (in)	Final Water Level (in)	Δ in Water Level (inches)	Percolation Rate (min/inch)
1	7:45 AM	25	25	43.2	43.0	0.2	104.2
	8:10 AM						
2	8:10 AM	25	50	43.0	42.8	0.1	208.3
	8:35 AM						
Soil Criteria: Normal							
Percolation Test							
Reading No.	Time	Time Interval (min)	Total Elapsed Time (min)	Initial Water Head (in)	Final Water Head (in)	Δ in Water Level (inches)	Percolation Rate (min/inch)
1	10:00 AM	30	30	42.6	42.5	0.1	250.0
	10:30 AM						
2	10:30 AM	30	60	42.5	42.4	0.1	250.0
	11:00 AM						
3	11:00 AM	30	90	42.4	42.2	0.1	250.0
	11:30 AM						
4	11:30 AM	30	120	42.2	42.0	0.2	125.0
	12:00 PM						
5	12:00 PM	30	150	42.0	41.9	0.1	250.0
	12:30 PM						
6	12:30 PM	30	180	41.9	41.9	0.0	0
	1:00 PM						
7	1:00 PM	30	210	41.9	41.8	0.1	250.0
	1:30 PM						
8	1:30 PM	30	240	41.8	41.6	0.1	250.0
	2:00 PM						
9	2:00 PM	30	270	41.6	41.4	0.2	125.0
	2:30 PM						
10	2:30 PM	30	300	41.4	41.3	0.1	250.0
	3:00 PM						
11	3:00 PM	30	330	41.4	41.3	0.1	250.0
	3:30 PM						
12	3:30 PM	30	360	41.3	41.2	0.1	250.0
	4:00 PM						
Infiltration Rate (in/hr):		0.01					
Radius of test hole (in):		4				Figure A-12	
Average Head (in):		41.2					

PERCOLATION TEST REPORT							
Project Name:		MR-56 Commercial			Project No.:		T2765-22-01
Test Hole No.:		P-3			Date Excavated:		3/28/2017
Length of Test Pipe:		56.2 inches		Soil Classification:		SM	
Height of Pipe above Ground:		0.0 inches		Presoak Date:		3/28/2017	
Depth of Test Hole:		56.2 inches		Perc Test Date:		3/29/2017	
Check for Sandy Soil Criteria Tested by:				SP	Percolation Tested by:		SP
Water level measured from bottom of hole							
Sandy Soil Criteria Test							
Trial No.	Time	Time	Total	Initial Water	Final Water	Δ in Water	Percolation
		Interval	Elapsed	Level	Level	Level	Rate
		(min)	Time (min)	(in)	(in)	(inches)	(min/inch)
1	7:50 AM	25	25	41.0	40.0	1.1	23.1
	8:15 AM						
2	8:15 AM	25	50	40.0	39.2	0.7	34.7
	8:40 AM						
		Soil Criteria: Normal					
		Percolation Test					
Reading	Time	Time	Total	Initial Water	Final Water	Δ in Water	Percolation
No.		Interval	Elapsed	Head	Head	Level	Rate
		(min)	Time (min)	(in)	(in)	(inches)	(min/inch)
1	10:05 AM	30	30	40.4	39.6	0.8	35.7
	10:35 AM						
2	10:35 AM	30	60	39.6	38.9	0.7	41.7
	11:05 AM						
3	11:05 AM	30	90	39.8	39.1	0.7	41.7
	11:35 AM						
4	11:35 AM	30	120	40.4	39.6	0.8	35.7
	12:05 PM						
5	12:05 PM	30	150	39.6	38.9	0.7	41.7
	12:35 PM						
6	12:35 PM	30	180	40.8	40.1	0.7	41.7
	1:05 PM						
7	1:05 PM	30	210	40.1	39.4	0.7	41.7
	1:35 PM						
8	1:35 PM	30	240	40.0	39.5	0.5	62.5
	2:05 PM						
9	2:05 PM	30	270	40.1	39.5	0.6	50.0
	2:35 PM						
10	2:35 PM	30	300	40.6	40.0	0.6	50.0
	3:05 PM						
11	3:05 PM	30	330	40.0	39.4	0.6	50.0
	3:35 PM						
12	3:35 PM	30	360	40.7	40.1	0.6	50.0
	4:05 PM						
Infiltration Rate (in/hr):			0.06				
Radius of test hole (in):			4				Figure A-13
Average Head (in):			40.4				

Figure A-13

PERCOLATION TEST REPORT							
Project Name:		MR-56 Commercial		Project No.:		T2765-22-01	
Test Hole No.:		P-4		Date Excavated:		3/28/2017	
Length of Test Pipe:		60.0 inches		Soil Classification:		SM	
Height of Pipe above Ground:		0.7 inches		Presoak Date:		3/28/2017	
Depth of Test Hole:		59.3 inches		Perc Test Date:		3/29/2017	
Check for Sandy Soil Criteria Tested by:		SP		Percolation Tested by:		SP	
Water level measured from bottom of hole							
Sandy Soil Criteria Test							
Trial No.	Time	Time Interval (min)	Total Elapsed Time (min)	Initial Water Level (in)	Final Water Level (in)	Δ in Water Level (inches)	Percolation Rate (min/inch)
1	7:55 AM	25	25	46.7	45.0	1.7	14.9
	8:20 AM						
2	8:20 AM	25	50	45.0	44.6	0.4	69.4
	8:45 AM						
Soil Criteria: Normal							
Percolation Test							
Reading No.	Time	Time Interval (min)	Total Elapsed Time (min)	Initial Water Head (in)	Final Water Head (in)	Δ in Water Level (inches)	Percolation Rate (min/inch)
1	10:10 AM	30	30	43.8	43.6	0.2	125.0
	10:40 AM						
2	10:40 AM	30	60	43.6	43.4	0.1	250.0
	11:10 AM						
3	11:10 AM	30	90	43.4	43.2	0.2	125.0
	11:40 AM						
4	11:40 AM	30	120	43.2	43.0	0.2	125.0
	12:10 PM						
5	12:10 PM	30	150	43.0	42.8	0.1	250.0
	12:40 PM						
6	12:40 PM	30	180	42.8	42.6	0.2	125.0
	1:10 PM						
7	1:10 PM	30	210	42.6	42.5	0.1	250.0
	1:40 PM						
8	1:40 PM	30	240	42.5	42.4	0.1	250.0
	2:10 PM						
9	2:10 PM	30	270	42.4	42.1	0.2	125.0
	2:40 PM						
10	2:40 PM	30	300	42.1	42.0	0.1	250.0
	3:10 PM						
11	3:10 PM	30	330	42.0	41.8	0.2	125.0
	3:40 PM						
12	3:40 PM	30	360	41.8	41.6	0.1	250.0
	4:10 PM						
Infiltration Rate (in/hr):		0.01					
Radius of test hole (in):		4				Figure A-14	
Average Head (in):		41.7					

PERCOLATION TEST REPORT							
Project Name:		MR-56 Commercial		Project No.:		T2765-22-01	
Test Hole No.:		P-5		Date Excavated:		3/28/2017	
Length of Test Pipe:		59.4 inches		Soil Classification:		SM	
Height of Pipe above Ground:		4.2 inches		Presoak Date:		3/28/2017	
Depth of Test Hole:		55.2 inches		Perc Test Date:		3/29/2017	
Check for Sandy Soil Criteria Tested by:				SP		Percolation Tested by: SP	
Water level measured from bottom of hole							
Sandy Soil Criteria Test							
Trial No.	Time	Time Interval	Total Elapsed Time (min)	Initial Water Level (in)	Final Water Level (in)	Δ in Water Level (inches)	Percolation Rate (min/inch)
1	8:55 AM	25	25	43.8	43.4	0.4	69.4
	9:20 AM						
2	9:20 AM	25	50	43.4	43.0	0.5	52.1
	9:45 AM						
			Soil Criteria: Normal				
			Percolation Test				
Reading No.	Time	Time Interval	Total Elapsed Time (min)	Initial Water Head (in)	Final Water Head (in)	Δ in Water Level (inches)	Percolation Rate (min/inch)
1	10:15 AM	30	30	43.7	43.2	0.5	62.5
	10:45 AM						
2	10:45 AM	30	60	43.9	43.6	0.4	83.3
	11:15 AM						
3	11:15 AM	30	90	43.8	43.4	0.4	83.3
	11:45 AM						
4	11:45 AM	30	120	44.0	43.7	0.4	83.3
	12:15 PM						
5	12:15 PM	30	150	44.5	44.0	0.5	62.5
	12:45 PM						
6	12:45 PM	30	180	44.0	43.7	0.4	83.3
	1:15 PM						
7	1:15 PM	30	210	43.9	43.6	0.4	83.3
	1:45 PM						
8	1:45 PM	30	240	43.9	43.6	0.4	83.3
	2:15 PM						
9	2:15 PM	30	270	43.9	43.6	0.4	83.3
	2:45 PM						
10	2:45 PM	30	300	44.0	43.7	0.4	83.3
	3:15 PM						
11	3:15 PM	30	330	44.4	44.0	0.4	83.3
	3:45 PM						
12	3:45 PM	30	360	44.0	43.7	0.4	83.3
	4:15 PM						
Infiltration Rate (in/hr):		0.03					
Radius of test hole (in):		4				Figure A-15	
Average Head (in):		43.9					

PERCOLATION TEST REPORT							
Project Name:		MR-56 Commercial		Project No.:		T2765-22-01	
Test Hole No.:		P-6		Date Excavated:		3/28/2017	
Length of Test Pipe:		59.4 inches		Soil Classification:		SM	
Height of Pipe above Ground:		3.0 inches		Presoak Date:		3/28/2017	
Depth of Test Hole:		56.4 inches		Perc Test Date:		3/29/2017	
Check for Sandy Soil Criteria Tested by:		SP		Percolation Tested by:		SP	
Water level measured from bottom of hole							
Sandy Soil Criteria Test							
Trial No.	Time	Time Interval (min)	Total Elapsed Time (min)	Initial Water Level (in)	Final Water Level (in)	Δ in Water Level (inches)	Percolation Rate (min/inch)
1	9:00 AM	25	25	46.7	45.8	0.8	29.8
	9:25 AM						
2	9:25 AM	25	50	45.8	45.0	0.8	29.8
	9:50 AM						
Soil Criteria: Normal							
Percolation Test							
Reading No.	Time	Time Interval (min)	Total Elapsed Time (min)	Initial Water Head (in)	Final Water Head (in)	Δ in Water Level (inches)	Percolation Rate (min/inch)
1	10:20 AM	30	30	44.5	43.9	0.6	50.0
	10:50 AM						
2	10:50 AM	30	60	43.9	43.4	0.5	62.5
	11:20 AM						
3	11:20 AM	30	90	43.4	43.0	0.5	62.5
	11:50 AM						
4	11:50 AM	30	120	43.0	42.5	0.5	62.5
	12:20 PM						
5	12:20 PM	30	150	43.1	42.7	0.4	83.3
	12:50 PM						
6	12:50 PM	30	180	42.7	42.4	0.4	83.3
	1:20 PM						
7	1:20 PM	30	210	43.0	42.6	0.4	83.3
	1:50 PM						
8	1:50 PM	30	240	42.6	42.2	0.4	83.3
	2:20 PM						
9	2:20 PM	30	270	43.2	42.8	0.4	83.3
	2:50 PM						
10	2:50 PM	30	300	43.1	42.7	0.4	83.3
	3:20 PM						
11	3:20 PM	30	330	42.7	42.4	0.4	83.3
	3:50 PM						
12	3:50 PM	30	360	43.3	43.0	0.4	83.3
	4:20 PM						
Infiltration Rate (in/hr):		0.03					
Radius of test hole (in):		4				Figure A-16	
Average Head (in):		43.1					

APPENDIX

**B**

APPENDIX B

LABORATORY TESTING

We performed laboratory tests in accordance with current generally accepted test methods of ASTM International (ASTM) or other suggested procedures. We analyzed selected soil samples for maximum dry density and optimum moisture content, consolidation, expansion index, corrosivity, Atterberg limits, grain size distribution, R-Value, direct shear strength, and in-situ dry density and moisture content. The results of the laboratory tests are presented on Figures B-1 through B-7.

**SUMMARY OF LABORATORY MAXIMUM DRY DENSITY
AND OPTIMUM MOISTURE CONTENT TEST RESULTS
ASTM D1557**

Sample No.	Description	Maximum Dry Density (pcf)	Optimum Moisture Content (% of dry wt.)
B-3 @ 0-5'	Silty, Clayey SAND, dark brown	133.0	8.0

**SUMMARY OF LABORATORY EXPANSION INDEX TEST RESULTS
ASTM D4829**

Sample No.	Moisture Content		Before Test Dry Density (pcf)	Expansion Index
	Before Test (%)	After Test (%)		
B-1 @ 0-5'	8.0	16.4	117.1	40

SUMMARY OF CORROSIVITY TEST RESULTS

Sample No.	Chloride Content (ppm)	Sulfate Content (%)	pH	Resistivity (ohm-centimeter)
B-4 @ 0-5'	270	0.085	7.0	830

Chloride content determined by California Test 422.

Water-soluble sulfate determined by California Test 417.

Resistivity and pH determined by Caltrans Test 643.

GEOCON
W E S T, I N C.

GEOTECHNICAL CONSULTANTS
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LABORATORY TEST RESULTS

MR 56 COMMERCIAL SITE
NWC HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

AG

APRIL, 2017

PROJECT NO. T2765-22-01

FIG B-1

**SUMMARY OF LABORATORY R-VALUE TEST RESULTS
ASTM D2844**

Sample No.	R-Value
B-2 @ 0-5'	14

**SUMMARY OF ONE-DIMENSIONAL CONSOLIDATION (COLLAPSE) TESTS
ASTM D2435**

Sample No.	In-situ Dry Density (pcf)	Moisture Content Before Test (%)	Final Moisture Content (%)	Axial Load with Water Added (psf)	Percent Collapse
B-2 @ 2.5'	122.4	10.2	11.4	2,000	0.1
B-4 @ 2.5'	124.0	9.3	11.9	2,000	0.4

**SUMMARY OF ATTERBERG LIMIT TEST RESULTS
ASTM D4318**

Sample No.	Liquid Limit	Plastic Limit	Plasticity Index	USCS
B-3 @ 2.5'	25	12	13	SC

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LABORATORY TEST RESULTS

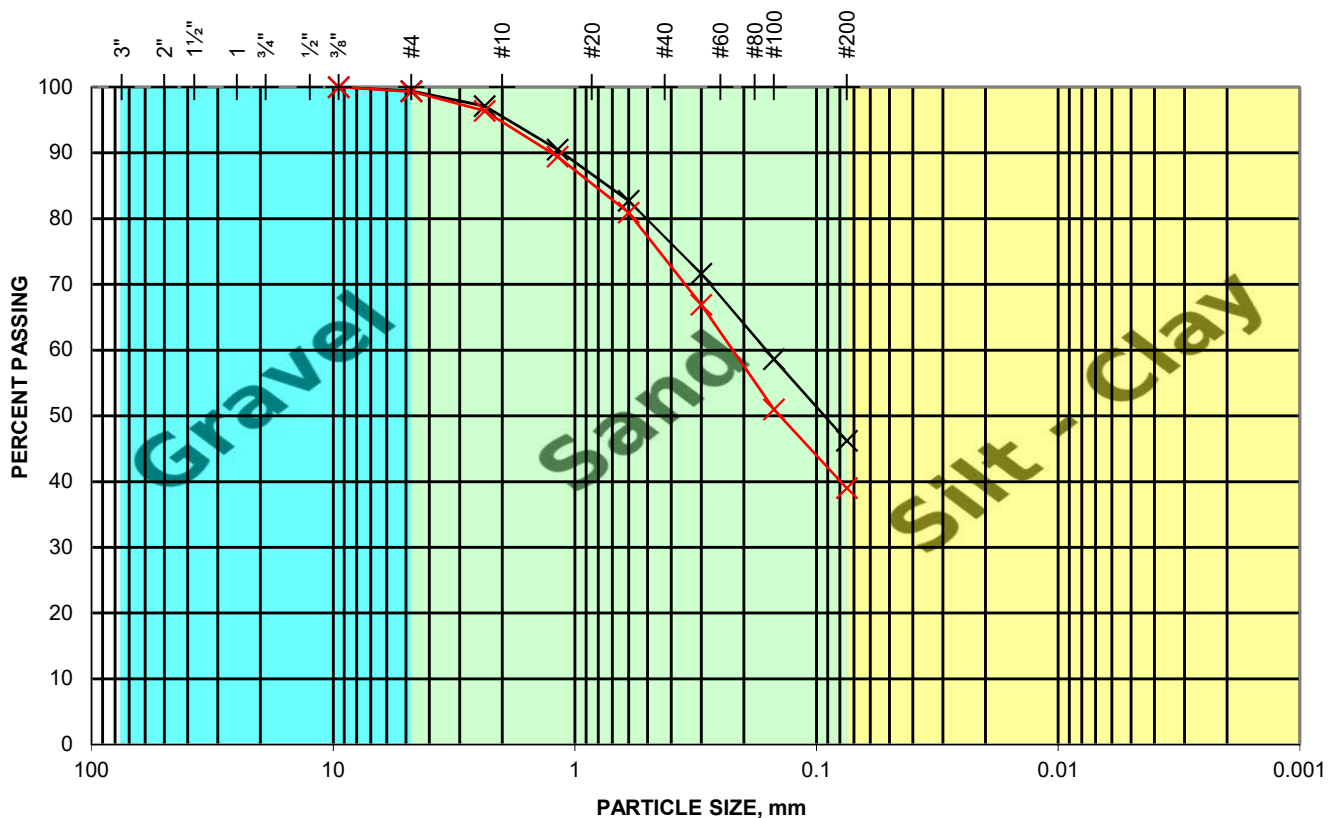
MR 56 COMMERCIAL SITE
NWC HIGHWAY 74 AND BRIGGS ROAD
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AG

APRIL, 2017

PROJECT NO. T2765-22-01

FIG B-2



SAMPLE ID	SAMPLE DESCRIPTION
P-1 @ 4-5'	SM - Silty SAND, dark brown
P-3 @ 4-5'	SM - Silty SAND, brown

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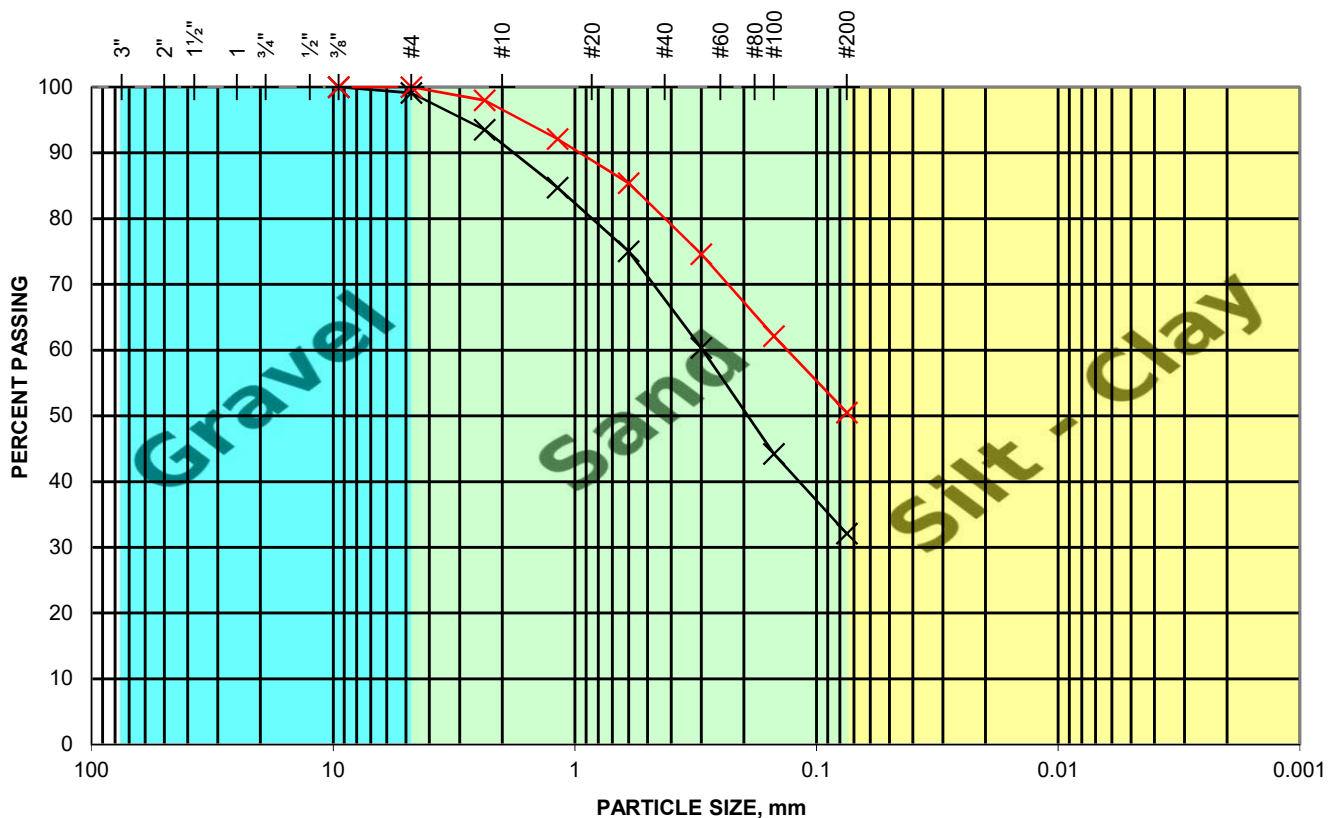
GRAIN SIZE DISTRIBUTION

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FIG B-3



SAMPLE ID	SAMPLE DESCRIPTION
P-4 @ 4-5'	SM - Silty SAND, dark brown
P-5 @ 4-5'	ML - Sandy SILT, brown

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GRAIN SIZE DISTRIBUTION

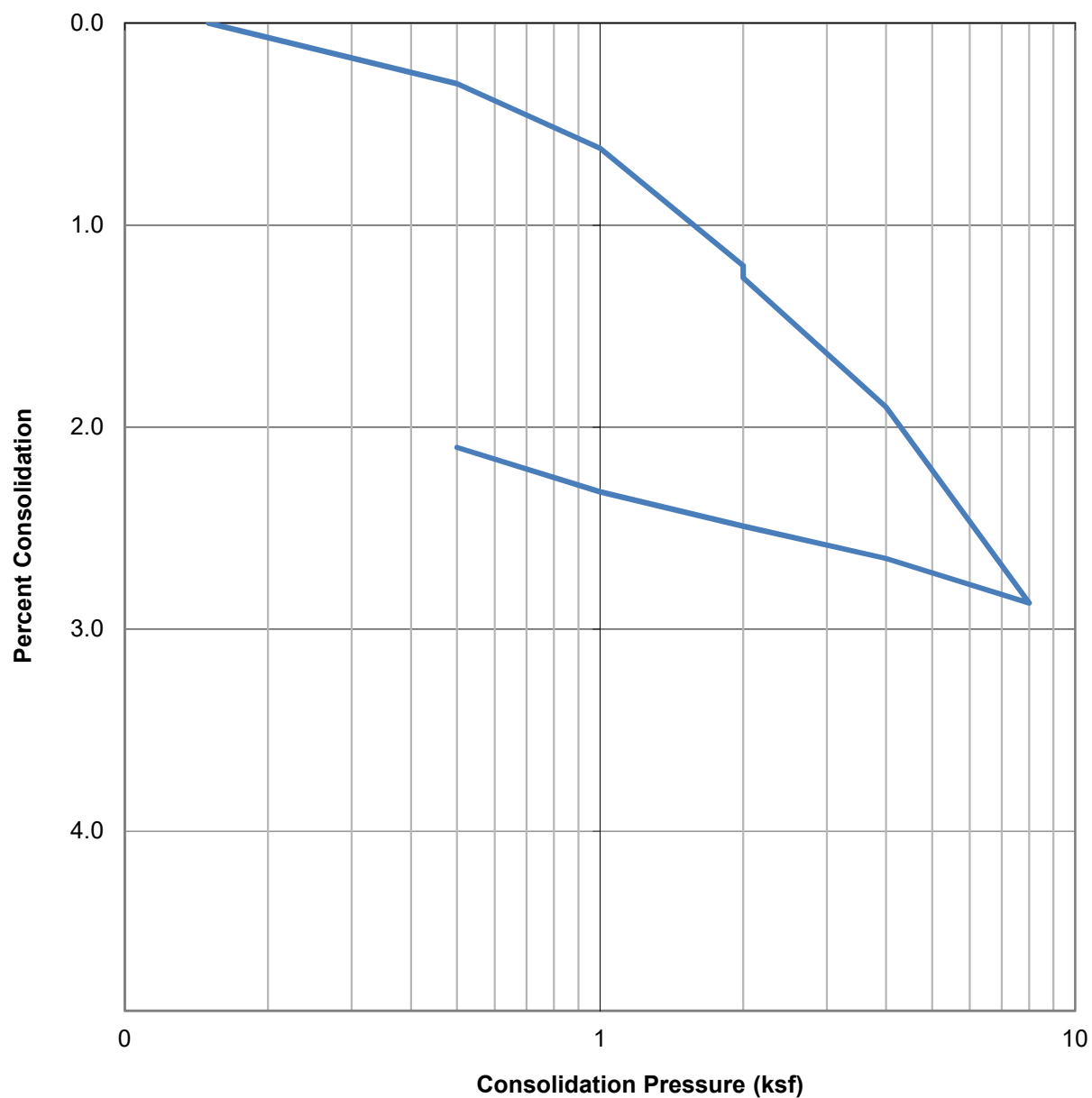
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FIG B-4

WATER ADDED AT 2 KSF



SAMPLE ID	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B-2 @ 2.5'	SM	122.4	10.2	11.4

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CONSOLIDATION TEST RESULTS

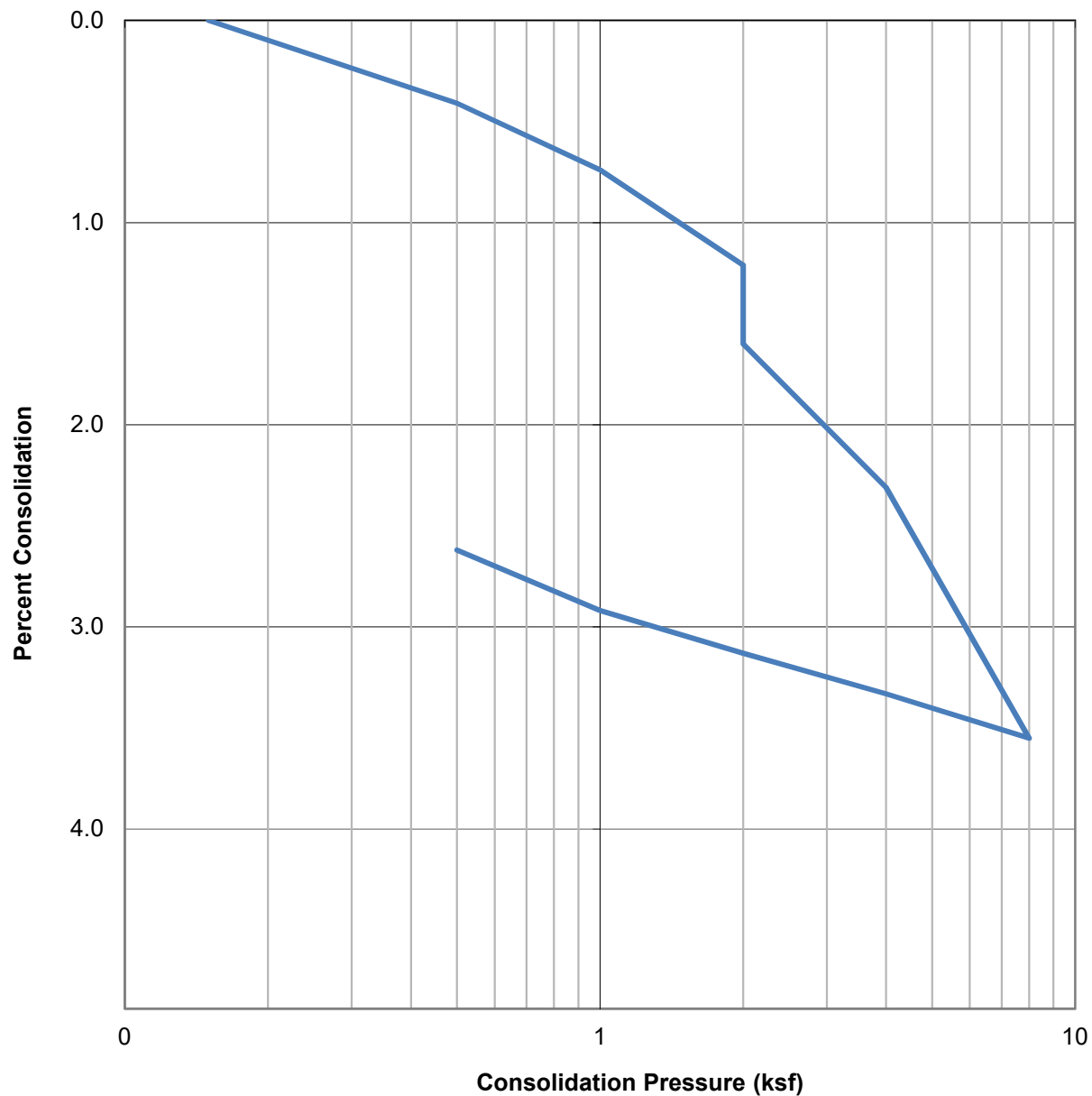
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FIG B-5

WATER ADDED AT 2 KSF



SAMPLE ID	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B-4 @ 2.5'	SM	124.0	9.4	11.9

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AG

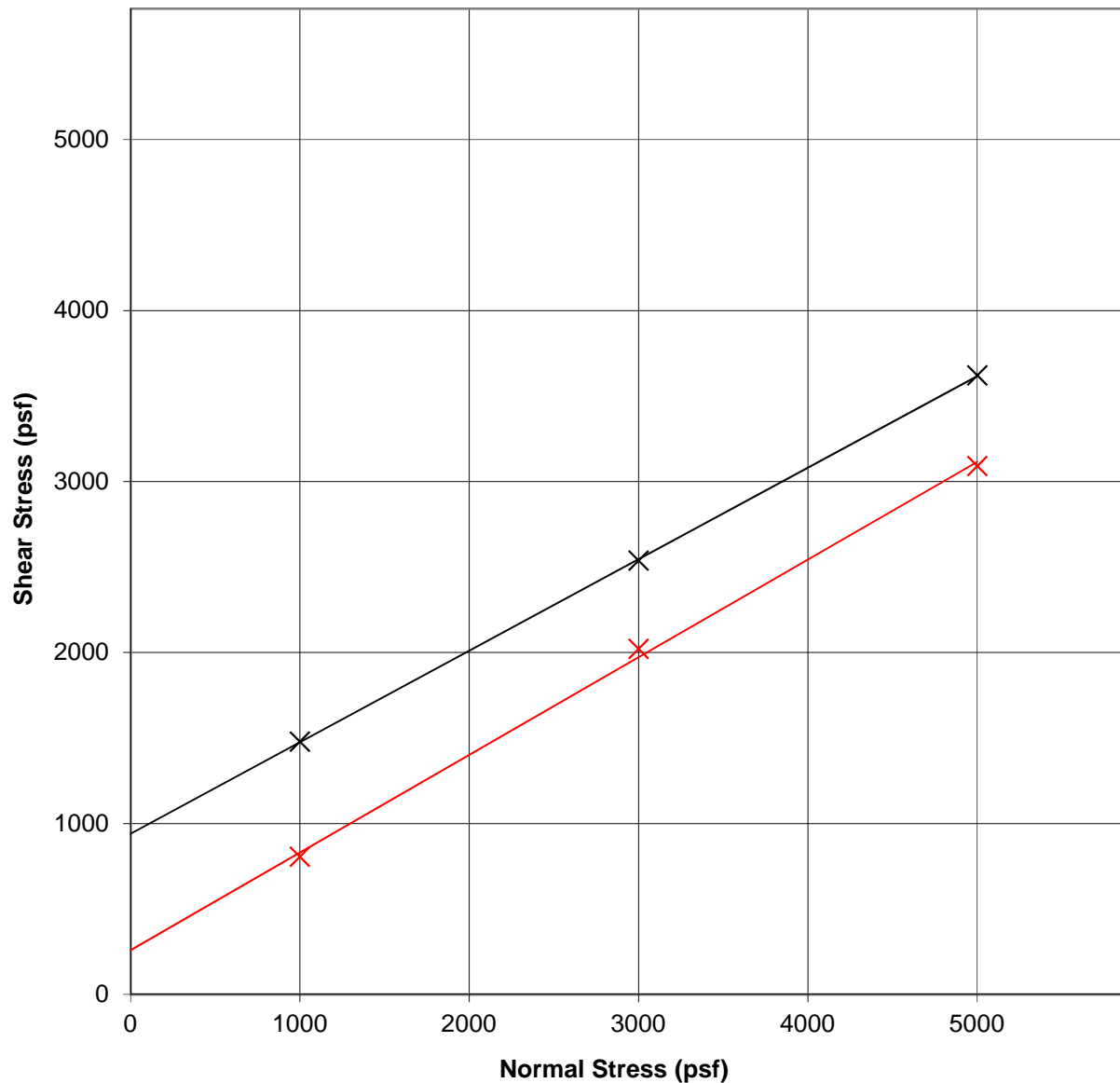
CONSOLIDATION TEST RESULTS

MR 56 COMMERCIAL SITE
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PROJECT NO. T2765-22-01

FIG B-6



SAMPLE ID	SOIL TYPE	INITIAL DRY DENSITY (pcf)	INITIAL MOISTURE (%)	FINAL MOISTURE (%)	C (psf)	ϕ (deg)
B-2 @ 5'	SM	122.9	12.9	15.7	940	28
*B-3 @ 0-5'	SC-SM	120.1	7.7	12.9	260	30

*Sample remolded to approximately 90% of the test maximum dry density at optimum moisture content.

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DIRECT SHEAR TEST RESULTS

MR 56 COMMERCIAL SITE
NWC HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

APRIL, 2017

PROJECT NO. T2765-22-01

FIG B-7

APPENDIX

A teal-colored triangle pointing to the left, containing a white capital letter 'C'.

C

APPENDIX C

RECOMMENDED GRADING SPECIFICATIONS

FOR

MR 56 COMMERCIAL SITE
NWC HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

PROJECT NO. T2765-22-01

RECOMMENDED GRADING SPECIFICATIONS

1. GENERAL

- 1.1 These Recommended Grading Specifications shall be used in conjunction with the Geotechnical Report for the project prepared by Geocon. The recommendations contained in the text of the Geotechnical Report are a part of the earthwork and grading specifications and shall supersede the provisions contained hereinafter in the case of conflict.
- 1.2 Prior to the commencement of grading, a geotechnical consultant (Consultant) shall be employed for the purpose of observing earthwork procedures and testing the fills for substantial conformance with the recommendations of the Geotechnical Report and these specifications. The Consultant should provide adequate testing and observation services so that they may assess whether, in their opinion, the work was performed in substantial conformance with these specifications. It shall be the responsibility of the Contractor to assist the Consultant and keep them apprised of work schedules and changes so that personnel may be scheduled accordingly.
- 1.3 It shall be the sole responsibility of the Contractor to provide adequate equipment and methods to accomplish the work in accordance with applicable grading codes or agency ordinances, these specifications and the approved grading plans. If, in the opinion of the Consultant, unsatisfactory conditions such as questionable soil materials, poor moisture condition, inadequate compaction, and/or adverse weather result in a quality of work not in conformance with these specifications, the Consultant will be empowered to reject the work and recommend to the Owner that grading be stopped until the unacceptable conditions are corrected.

2. DEFINITIONS

- 2.1 **Owner** shall refer to the owner of the property or the entity on whose behalf the grading work is being performed and who has contracted with the Contractor to have grading performed.
- 2.2 **Contractor** shall refer to the Contractor performing the site grading work.
- 2.3 **Civil Engineer** or **Engineer of Work** shall refer to the California licensed Civil Engineer or consulting firm responsible for preparation of the grading plans, surveying and verifying as-graded topography.
- 2.4 **Consultant** shall refer to the soil engineering and engineering geology consulting firm retained to provide geotechnical services for the project.

- 2.5 **Soil Engineer** shall refer to a California licensed Civil Engineer retained by the Owner, who is experienced in the practice of geotechnical engineering. The Soil Engineer shall be responsible for having qualified representatives on-site to observe and test the Contractor's work for conformance with these specifications.
- 2.6 **Engineering Geologist** shall refer to a California licensed Engineering Geologist retained by the Owner to provide geologic observations and recommendations during the site grading.
- 2.7 **Geotechnical Report** shall refer to a soil report (including all addenda) which may include a geologic reconnaissance or geologic investigation that was prepared specifically for the development of the project for which these Recommended Grading Specifications are intended to apply.

3. MATERIALS

- 3.1 Materials for compacted fill shall consist of any soil excavated from the cut areas or imported to the site that, in the opinion of the Consultant, is suitable for use in construction of fills. In general, fill materials can be classified as *soil* fills, *soil-rock* fills or *rock* fills, as defined below.
- 3.1.1 **Soil fills** are defined as fills containing no rocks or hard lumps greater than 12 inches in maximum dimension and containing at least 40 percent by weight of material smaller than $\frac{3}{4}$ inch in size.
- 3.1.2 **Soil-rock fills** are defined as fills containing no rocks or hard lumps larger than 4 feet in maximum dimension and containing a sufficient matrix of soil fill to allow for proper compaction of soil fill around the rock fragments or hard lumps as specified in Paragraph 6.2. **Oversize rock** is defined as material greater than 12 inches.
- 3.1.3 **Rock fills** are defined as fills containing no rocks or hard lumps larger than 3 feet in maximum dimension and containing little or no fines. Fines are defined as material smaller than $\frac{3}{4}$ inch in maximum dimension. The quantity of fines shall be less than approximately 20 percent of the rock fill quantity.
- 3.2 Material of a perishable, spongy, or otherwise unsuitable nature as determined by the Consultant shall not be used in fills.
- 3.3 Materials used for fill, either imported or on-site, shall not contain hazardous materials as defined by the California Code of Regulations, Title 22, Division 4, Chapter 30, Articles 9

and 10; 40CFR; and any other applicable local, state or federal laws. The Consultant shall not be responsible for the identification or analysis of the potential presence of hazardous materials. However, if observations, odors or soil discoloration cause Consultant to suspect the presence of hazardous materials, the Consultant may request from the Owner the termination of grading operations within the affected area. Prior to resuming grading operations, the Owner shall provide a written report to the Consultant indicating that the suspected materials are not hazardous as defined by applicable laws and regulations.

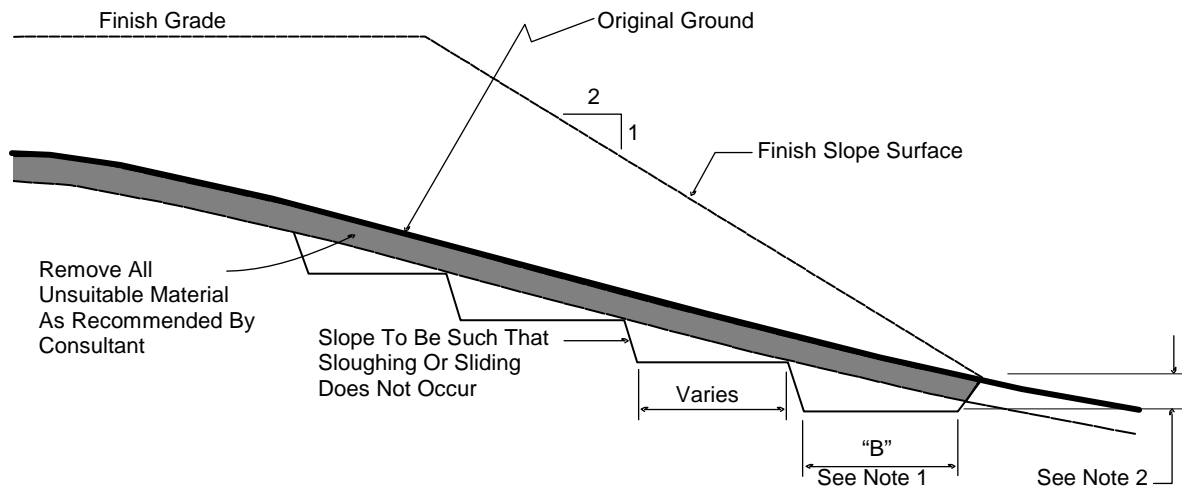
- 3.4 The outer 15 feet of *soil-rock* fill slopes, measured horizontally, should be composed of properly compacted *soil* fill materials approved by the Consultant. *Rock* fill may extend to the slope face, provided that the slope is not steeper than 2:1 (horizontal:vertical) and a soil layer no thicker than 12 inches is track-walked onto the face for landscaping purposes. This procedure may be utilized provided it is acceptable to the governing agency, Owner and Consultant.
- 3.5 Samples of soil materials to be used for fill should be tested in the laboratory by the Consultant to determine the maximum density, optimum moisture content, and, where appropriate, shear strength, expansion, and gradation characteristics of the soil.
- 3.6 During grading, soil or groundwater conditions other than those identified in the Geotechnical Report may be encountered by the Contractor. The Consultant shall be notified immediately to evaluate the significance of the unanticipated condition

4. CLEARING AND PREPARING AREAS TO BE FILLED

- 4.1 Areas to be excavated and filled shall be cleared and grubbed. Clearing shall consist of complete removal above the ground surface of trees, stumps, brush, vegetation, man-made structures, and similar debris. Grubbing shall consist of removal of stumps, roots, buried logs and other unsuitable material and shall be performed in areas to be graded. Roots and other projections exceeding 1½ inches in diameter shall be removed to a depth of 3 feet below the surface of the ground. Borrow areas shall be grubbed to the extent necessary to provide suitable fill materials.
- 4.2 Asphalt pavement material removed during clearing operations should be properly disposed at an approved off-site facility or in an acceptable area of the project evaluated by Geocon and the property owner. Concrete fragments that are free of reinforcing steel may be placed in fills, provided they are placed in accordance with Section 6.2 or 6.3 of this document.

- 4.3 After clearing and grubbing of organic matter and other unsuitable material, loose or porous soils shall be removed to the depth recommended in the Geotechnical Report. The depth of removal and compaction should be observed and approved by a representative of the Consultant. The exposed surface shall then be plowed or scarified to a minimum depth of 6 inches and until the surface is free from uneven features that would tend to prevent uniform compaction by the equipment to be used.
- 4.4 Where the slope ratio of the original ground is steeper than 5:1 (horizontal:vertical), or where recommended by the Consultant, the original ground should be benched in accordance with the following illustration.

TYPICAL BENCHING DETAIL



- DETAIL NOTES:
- (1) Key width "B" should be a minimum of 10 feet, or sufficiently wide to permit complete coverage with the compaction equipment used. The base of the key should be graded horizontal, or inclined slightly into the natural slope.
 - (2) The outside of the key should be below the topsoil or unsuitable surficial material and at least 2 feet into dense formational material. Where hard rock is exposed in the bottom of the key, the depth and configuration of the key may be modified as approved by the Consultant.

- 4.5 After areas to receive fill have been cleared and scarified, the surface should be moisture conditioned to achieve the proper moisture content, and compacted as recommended in Section 6 of these specifications.

5. COMPACTION EQUIPMENT

- 5.1 Compaction of *soil* or *soil-rock* fill shall be accomplished by sheepsfoot or segmented-steel wheeled rollers, vibratory rollers, multiple-wheel pneumatic-tired rollers, or other types of acceptable compaction equipment. Equipment shall be of such a design that it will be capable of compacting the *soil* or *soil-rock* fill to the specified relative compaction at the specified moisture content.
- 5.2 Compaction of *rock* fills shall be performed in accordance with Section 6.3.

6. PLACING, SPREADING AND COMPACTION OF FILL MATERIAL

- 6.1 *Soil* fill, as defined in Paragraph 3.1.1, shall be placed by the Contractor in accordance with the following recommendations:
 - 6.1.1 *Soil* fill shall be placed by the Contractor in layers that, when compacted, should generally not exceed 8 inches. Each layer shall be spread evenly and shall be thoroughly mixed during spreading to obtain uniformity of material and moisture in each layer. The entire fill shall be constructed as a unit in nearly level lifts. Rock materials greater than 12 inches in maximum dimension shall be placed in accordance with Section 6.2 or 6.3 of these specifications.
 - 6.1.2 In general, the *soil* fill shall be compacted at a moisture content at or above the optimum moisture content as determined by ASTM D 1557.
 - 6.1.3 When the moisture content of *soil* fill is below that specified by the Consultant, water shall be added by the Contractor until the moisture content is in the range specified.
 - 6.1.4 When the moisture content of the *soil* fill is above the range specified by the Consultant or too wet to achieve proper compaction, the *soil* fill shall be aerated by the Contractor by blading/mixing, or other satisfactory methods until the moisture content is within the range specified.
 - 6.1.5 After each layer has been placed, mixed, and spread evenly, it shall be thoroughly compacted by the Contractor to a relative compaction of at least 90 percent. Relative compaction is defined as the ratio (expressed in percent) of the in-place dry density of the compacted fill to the maximum laboratory dry density as determined in accordance with ASTM D 1557. Compaction shall be continuous over the entire area, and compaction equipment shall make sufficient passes so that the specified minimum relative compaction has been achieved throughout the entire fill.

- 6.1.6 Where practical, soils having an Expansion Index greater than 50 should be placed at least 3 feet below finish pad grade and should be compacted at a moisture content generally 2 to 4 percent greater than the optimum moisture content for the material.
 - 6.1.7 Properly compacted *soil* fill shall extend to the design surface of fill slopes. To achieve proper compaction, it is recommended that fill slopes be over-built by at least 3 feet and then cut to the design grade. This procedure is considered preferable to track-walking of slopes, as described in the following paragraph.
 - 6.1.8 As an alternative to over-building of slopes, slope faces may be back-rolled with a heavy-duty loaded sheepsfoot or vibratory roller at maximum 4-foot fill height intervals. Upon completion, slopes should then be track-walked with a D-8 dozer or similar equipment, such that a dozer track covers all slope surfaces at least twice.
- 6.2 *Soil-rock* fill, as defined in Paragraph 3.1.2, shall be placed by the Contractor in accordance with the following recommendations:
- 6.2.1 Rocks larger than 12 inches but less than 4 feet in maximum dimension may be incorporated into the compacted *soil* fill, but shall be limited to the area measured 15 feet minimum horizontally from the slope face and 5 feet below finish grade or 3 feet below the deepest utility, whichever is deeper.
 - 6.2.2 Rocks or rock fragments up to 4 feet in maximum dimension may either be individually placed or placed in windrows. Under certain conditions, rocks or rock fragments up to 10 feet in maximum dimension may be placed using similar methods. The acceptability of placing rock materials greater than 4 feet in maximum dimension shall be evaluated during grading as specific cases arise and shall be approved by the Consultant prior to placement.
 - 6.2.3 For individual placement, sufficient space shall be provided between rocks to allow for passage of compaction equipment.
 - 6.2.4 For windrow placement, the rocks should be placed in trenches excavated in properly compacted *soil* fill. Trenches should be approximately 5 feet wide and 4 feet deep in maximum dimension. The voids around and beneath rocks should be filled with approved granular soil having a Sand Equivalent of 30 or greater and should be compacted by flooding. Windrows may also be placed utilizing an "open-face" method in lieu of the trench procedure, however, this method should first be approved by the Consultant.

- 6.2.5 Windrows should generally be parallel to each other and may be placed either parallel to or perpendicular to the face of the slope depending on the site geometry. The minimum horizontal spacing for windrows shall be 12 feet center-to-center with a 5-foot stagger or offset from lower courses to next overlying course. The minimum vertical spacing between windrow courses shall be 2 feet from the top of a lower windrow to the bottom of the next higher windrow.
- 6.2.6 Rock placement, fill placement and flooding of approved granular soil in the windrows should be continuously observed by the Consultant.
- 6.3 *Rock* fills, as defined in Section 3.1.3, shall be placed by the Contractor in accordance with the following recommendations:
- 6.3.1 The base of the *rock* fill shall be placed on a sloping surface (minimum slope of 2 percent). The surface shall slope toward suitable subdrainage outlet facilities. The *rock* fills shall be provided with subdrains during construction so that a hydrostatic pressure buildup does not develop. The subdrains shall be permanently connected to controlled drainage facilities to control post-construction infiltration of water.
- 6.3.2 *Rock* fills shall be placed in lifts not exceeding 3 feet. Placement shall be by rock trucks traversing previously placed lifts and dumping at the edge of the currently placed lift. Spreading of the *rock* fill shall be by dozer to facilitate *seating* of the rock. The *rock* fill shall be watered heavily during placement. Watering shall consist of water trucks traversing in front of the current rock lift face and spraying water continuously during rock placement. Compaction equipment with compactive energy comparable to or greater than that of a 20-ton steel vibratory roller or other compaction equipment providing suitable energy to achieve the required compaction or deflection as recommended in Paragraph 6.3.3 shall be utilized. The number of passes to be made should be determined as described in Paragraph 6.3.3. Once a *rock* fill lift has been covered with *soil* fill, no additional *rock* fill lifts will be permitted over the *soil* fill.
- 6.3.3 Plate bearing tests, in accordance with ASTM D 1196, may be performed in both the compacted *soil* fill and in the *rock* fill to aid in determining the required minimum number of passes of the compaction equipment. If performed, a minimum of three plate bearing tests should be performed in the properly compacted *soil* fill (minimum relative compaction of 90 percent). Plate bearing tests shall then be performed on areas of *rock* fill having two passes, four passes and six passes of the compaction equipment, respectively. The number of passes required for the *rock* fill shall be determined by comparing the results of the plate bearing tests for the *soil* fill and the *rock* fill and by evaluating the deflection

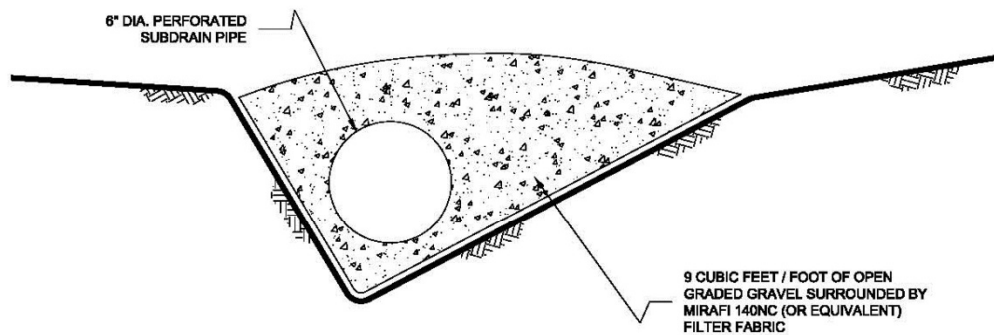
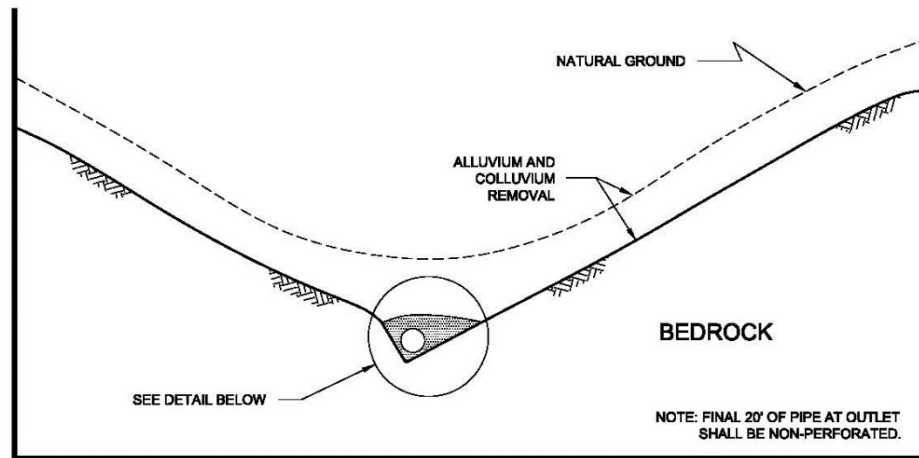
variation with number of passes. The required number of passes of the compaction equipment will be performed as necessary until the plate bearing deflections are equal to or less than that determined for the properly compacted *soil* fill. In no case will the required number of passes be less than two.

- 6.3.4 A representative of the Consultant should be present during *rock* fill operations to observe that the minimum number of “passes” have been obtained, that water is being properly applied and that specified procedures are being followed. The actual number of plate bearing tests will be determined by the Consultant during grading.
- 6.3.5 Test pits shall be excavated by the Contractor so that the Consultant can state that, in their opinion, sufficient water is present and that voids between large rocks are properly filled with smaller rock material. In-place density testing will not be required in the *rock* fills.
- 6.3.6 To reduce the potential for “piping” of fines into the *rock* fill from overlying *soil* fill material, a 2-foot layer of graded filter material shall be placed above the uppermost lift of *rock* fill. The need to place graded filter material below the *rock* should be determined by the Consultant prior to commencing grading. The gradation of the graded filter material will be determined at the time the *rock* fill is being excavated. Materials typical of the *rock* fill should be submitted to the Consultant in a timely manner, to allow design of the graded filter prior to the commencement of *rock* fill placement.
- 6.3.7 *Rock* fill placement should be continuously observed during placement by the Consultant.

7. SUBDRAINS

- 7.1 The geologic units on the site may have permeability characteristics and/or fracture systems that could be susceptible under certain conditions to seepage. The use of canyon subdrains may be necessary to mitigate the potential for adverse impacts associated with seepage conditions. Canyon subdrains with lengths in excess of 500 feet or extensions of existing offsite subdrains should use 8-inch-diameter pipes. Canyon subdrains less than 500 feet in length should use 6-inch-diameter pipes.

TYPICAL CANYON DRAIN DETAIL



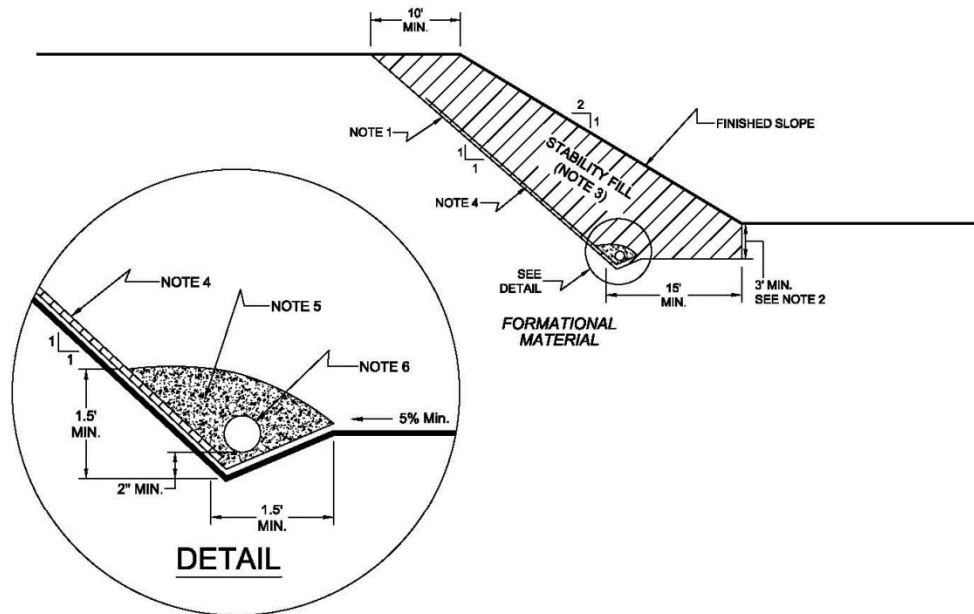
NOTES:

- 1.....8-INCH DIAMETER, SCHEDULE 80 PVC PERFORATED PIPE FOR FILLS
IN EXCESS OF 100-FEET IN DEPTH OR A PIPE LENGTH OF LONGER THAN 500 FEET.
- 2.....6-INCH DIAMETER, SCHEDULE 40 PVC PERFORATED PIPE FOR FILLS
LESS THAN 100-FEET IN DEPTH OR A PIPE LENGTH SHORTER THAN 500 FEET.

NO SCALE

7.2 Slope drains within stability fill keyways should use 4-inch-diameter (or larger) pipes.

TYPICAL STABILITY FILL DETAIL



NOTES:

- 1.....EXCAVATE BACKCUT AT 1:1 INCLINATION (UNLESS OTHERWISE NOTED).
- 2.....BASE OF STABILITY FILL TO BE 3 FEET INTO FORMATIONAL MATERIAL, SLOPING A MINIMUM 5% INTO SLOPE.
- 3.....STABILITY FILL TO BE COMPOSED OF PROPERLY COMPACTED GRANULAR SOIL.
- 4.....CHIMNEY DRAINS TO BE APPROVED PREFABRICATED CHIMNEY DRAIN PANELS (MIRADRAIN G200N OR EQUIVALENT) SPACED APPROXIMATELY 20 FEET CENTER TO CENTER AND 4 FEET WIDE. CLOSER SPACING MAY BE REQUIRED IF SEEPAGE IS ENCOUNTERED.
- 5.....FILTER MATERIAL TO BE 3/4-INCH, OPEN-GRADED CRUSHED ROCK ENCLOSED IN APPROVED FILTER FABRIC (MIRAFI 140NC).
- 6.....COLLECTOR PIPE TO BE 4-INCH MINIMUM DIAMETER, PERFORATED, THICK-WALLED PVC SCHEDULE 40 OR EQUIVALENT, AND SLOPED TO DRAIN AT 1 PERCENT MINIMUM TO APPROVED OUTLET.

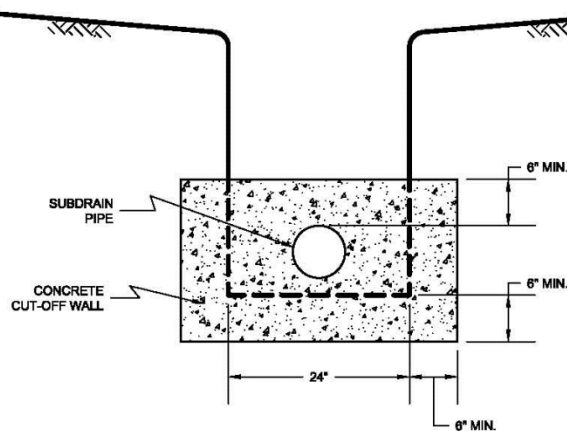
NO SCALE

- 7.3 The actual subdrain locations will be evaluated in the field during the remedial grading operations. Additional drains may be necessary depending on the conditions observed and the requirements of the local regulatory agencies. Appropriate subdrain outlets should be evaluated prior to finalizing 40-scale grading plans.
- 7.4 *Rock* fill or *soil-rock* fill areas may require subdrains along their down-slope perimeters to mitigate the potential for buildup of water from construction or landscape irrigation. The subdrains should be at least 6-inch-diameter pipes encapsulated in gravel and filter fabric. *Rock* fill drains should be constructed using the same requirements as canyon subdrains.

- 7.5 Prior to outletting, the final 20-foot segment of a subdrain that will not be extended during future development should consist of non-perforated drainpipe. At the non-perforated/perforated interface, a seepage cutoff wall should be constructed on the downslope side of the pipe.

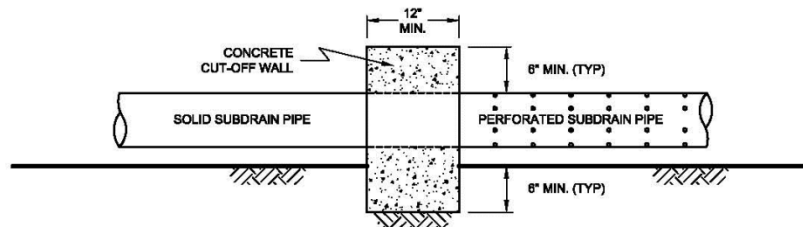
TYPICAL CUT OFF WALL DETAIL

FRONT VIEW



NO SCALE

SIDE VIEW

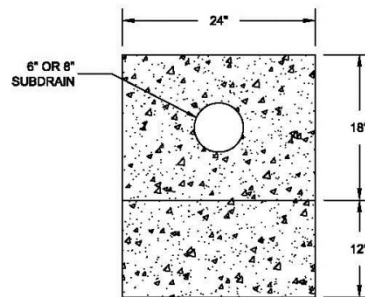


NO SCALE

- 7.6 Subdrains that discharge into a natural drainage course or open space area should be provided with a permanent headwall structure.

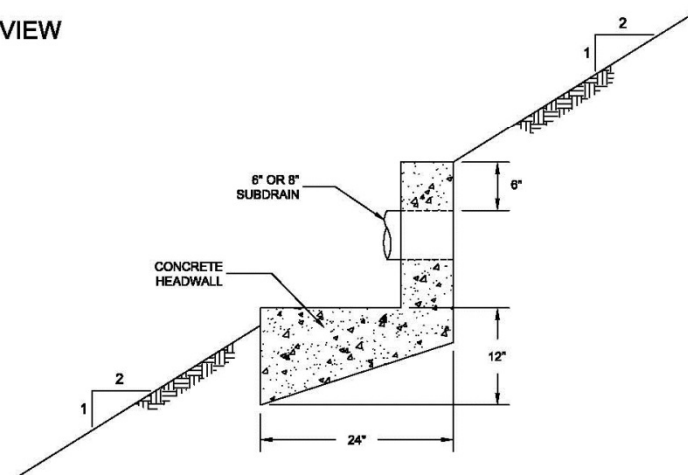
TYPICAL HEADWALL DETAIL

FRONT VIEW



NO SCALE

SIDE VIEW



NOTE: HEADWALL SHOULD OUTLET AT TOE OF FILL SLOPE
OR INTO CONTROLLED SURFACE DRAINAGE

NO SCALE

- 7.7 The final grading plans should show the location of the proposed subdrains. After completion of remedial excavations and subdrain installation, the project civil engineer should survey the drain locations and prepare an “as-built” map showing the drain locations. The final outlet and connection locations should be determined during grading operations. Subdrains that will be extended on adjacent projects after grading can be placed on formational material and a vertical riser should be placed at the end of the subdrain. The grading contractor should consider videoing the subdrains shortly after burial to check proper installation and functionality. The contractor is responsible for the performance of the drains.

8. OBSERVATION AND TESTING

- 8.1 The Consultant shall be the Owner's representative to observe and perform tests during clearing, grubbing, filling, and compaction operations. In general, no more than 2 feet in vertical elevation of *soil* or *soil-rock* fill should be placed without at least one field density test being performed within that interval. In addition, a minimum of one field density test should be performed for every 2,000 cubic yards of *soil* or *soil-rock* fill placed and compacted.
- 8.2 The Consultant should perform a sufficient distribution of field density tests of the compacted *soil* or *soil-rock* fill to provide a basis for expressing an opinion whether the fill material is compacted as specified. Density tests shall be performed in the compacted materials below any disturbed surface. When these tests indicate that the density of any layer of fill or portion thereof is below that specified, the particular layer or areas represented by the test shall be reworked until the specified density has been achieved.
- 8.3 During placement of *rock* fill, the Consultant should observe that the minimum number of passes have been obtained per the criteria discussed in Section 6.3.3. The Consultant should request the excavation of observation pits and may perform plate bearing tests on the placed *rock* fills. The observation pits will be excavated to provide a basis for expressing an opinion as to whether the *rock* fill is properly seated and sufficient moisture has been applied to the material. When observations indicate that a layer of *rock* fill or any portion thereof is below that specified, the affected layer or area shall be reworked until the *rock* fill has been adequately seated and sufficient moisture applied.
- 8.4 A settlement monitoring program designed by the Consultant may be conducted in areas of *rock* fill placement. The specific design of the monitoring program shall be as recommended in the Conclusions and Recommendations section of the project Geotechnical Report or in the final report of testing and observation services performed during grading.
- 8.5 We should observe the placement of subdrains, to check that the drainage devices have been placed and constructed in substantial conformance with project specifications.
- 8.6 Testing procedures shall conform to the following Standards as appropriate:

8.6.1 Soil and Soil-Rock Fills:

- 8.6.1.1 Field Density Test, ASTM D 1556, *Density of Soil In-Place By the Sand-Cone Method*.

- 8.6.1.2 Field Density Test, Nuclear Method, ASTM D 6938, *Density of Soil and Soil-Aggregate In-Place by Nuclear Methods (Shallow Depth)*.
- 8.6.1.3 Laboratory Compaction Test, ASTM D 1557, *Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-Pound Hammer and 18-Inch Drop*.
- 8.6.1.4. Expansion Index Test, ASTM D 4829, *Expansion Index Test*.

9. PROTECTION OF WORK

- 9.1 During construction, the Contractor shall properly grade all excavated surfaces to provide positive drainage and prevent ponding of water. Drainage of surface water shall be controlled to avoid damage to adjoining properties or to finished work on the site. The Contractor shall take remedial measures to prevent erosion of freshly graded areas until such time as permanent drainage and erosion control features have been installed. Areas subjected to erosion or sedimentation shall be properly prepared in accordance with the Specifications prior to placing additional fill or structures.
- 9.2 After completion of grading as observed and tested by the Consultant, no further excavation or filling shall be conducted except in conjunction with the services of the Consultant.

10. CERTIFICATIONS AND FINAL REPORTS

- 10.1 Upon completion of the work, Contractor shall furnish Owner a certification by the Civil Engineer stating that the lots and/or building pads are graded to within 0.1 foot vertically of elevations shown on the grading plan and that all tops and toes of slopes are within 0.5 foot horizontally of the positions shown on the grading plans. After installation of a section of subdrain, the project Civil Engineer should survey its location and prepare an *as-built* plan of the subdrain location. The project Civil Engineer should verify the proper outlet for the subdrains and the Contractor should ensure that the drain system is free of obstructions.
- 10.2 The Owner is responsible for furnishing a final as-graded soil and geologic report satisfactory to the appropriate governing or accepting agencies. The as-graded report should be prepared and signed by a California licensed Civil Engineer experienced in geotechnical engineering and by a California Certified Engineering Geologist, indicating that the geotechnical aspects of the grading were performed in substantial conformance with the Specifications or approved changes to the Specifications.

Appendix 4: Historical Site Conditions

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

PHASE I ENVIRONMENTAL SITE ASSESSMENT



MR 56 COMMERCIAL SITE NORTHWEST OF HIGHWAY 74 AND BRIGGS ROAD MENIFEE, CALIFORNIA

PREPARED FOR:

MR 56, LLC
C/O THE RANCON GROUP, INC.
41391 KALMIA STREET, SUITE 200
MURRIETA, CALIFORNIA 92562

PREPARED BY:

GEOCON WEST, INC.
41571 CORNING PLACE, SUITE 101
MURRIETA, CALIFORNIA 92562

GEOCON PROJECT NO. T2765-22-02

APRIL, 2017





Project No. T2765-22-02

April 27, 2017

MR 56, LLC

c/o The Rancon Group, Inc.

41391 Kalmia Street, Suite 200

Murrieta, California 92562

Attention: Dan Long

Subject: PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
MR 56 COMMERCIAL SITE
NORTHWEST OF HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

Dear Mr. Long:

As you requested on behalf of MR 56, LLC (the Client) we have performed a Phase I Environmental Site Assessment (ESA) for an undeveloped former agricultural property northwest of the intersection of Highway 74 and Briggs Road (the Site) in Menifee, California. We performed the Phase I ESA for updated entitlements and proposed development purposes.

The accompanying report summarizes the findings of our Phase I ESA including the potential presence of recognized environmental conditions as defined by the American Society for Testing and Materials *Designation E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*.

We appreciate the opportunity to have performed this Phase I ESA for you. Please contact us if you have any questions concerning this report or if we may be of further service.

Very truly yours,

GEOCON WEST, INC.

Alice M. Orton
Staff Geologist

Jim Brake, PG
Senior Geologist



(EMAIL) Addressee

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- B. Client and Site Owner Questionnaires and Supporting Documents
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PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

1. INTRODUCTION

This report describes the methodology and presents the findings of a Phase I Environmental Site Assessment (ESA) for an undeveloped property northwest of the intersection of Highway 74 and Briggs Road (the Site) in Menifee, California. We performed the Phase I ESA for MR 56, LLC for updated entitlements and proposed development purposes.

1.1 Purpose and Objectives

The purpose of the Phase I ESA was to identify evidence or indications of ‘recognized environmental conditions’ (REC) as defined by the American Society for Testing and Materials (ASTM) *Designation E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. Section 1.1.1 of ASTM Designation E 1527-13 defines an REC as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to 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.” De minimis conditions are those that generally do not present a threat to human health or the environment and that generally would not be the subject of the enforcement action if brought to the attention of appropriate governmental agencies.

ASTM *Designation E 1527-13* also defines ‘Historical’ and ‘Controlled’ RECs. They define an ‘Historical REC’ as “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).” ASTM defines a ‘Controlled REC’ as “a recognized environmental condition 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 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).” An HREC is not a REC if a property meets current standards for unrestricted residential use. A CREC remains a REC by definition when the property does not meet the unrestricted residential use requirement unconditionally.

We also conducted the Phase I ESA in general accordance with the requirements of 40 Code of Federal Regulations (CFR) Part 312 titled *Standards and Practices for All Appropriate Inquiries*, as required under Sections 101(35)(B)(ii) and (iii) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The purpose of conducting an all appropriate inquiries investigation into

the previous ownership and uses of a property is to meet the provisions necessary for the landowner, contiguous property owner, and/or bona fide prospective purchaser to qualify for certain landowner liability protections under CERCLA.

The following principles are an integral part of ASTM *Designation E1527-13*:

- **“Uncertainty Not Eliminated** - No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property, and this practice recognizes reasonable limits of time and cost.”
- **“Not Exhaustive** - All Appropriate Inquiries 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. One of the purposes of this practice is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing an environmental site assessment and the reduction of uncertainty about unknown conditions resulting from additional information.”
- **“Level of Inquiry is Variable** – Not every property will warrant the same level of assessment. Consistent with good commercial and customary practice, the appropriate level of environmental site assessment will be guided by the type of property subject to assessment, the expertise and risk tolerance of the user, and the information developed in the course of the inquiry.”

1.2 Scope of Services

Our Proposal No. IE-1813, dated March 14, 2017, describes the scope of services for this Phase I ESA. We performed the scope of services outlined in the proposal with the exception that Sanborn Maps were not reviewed. Environmental Data Resources, Inc. (EDR) stated that Sanborn Map coverage does not exist for the Site. The main components of the Phase I ESA and their objectives, as specified by the referenced standards, include the following:

- **Physical Setting:** We reviewed physical setting references to obtain information concerning the topographic, geologic, and hydrogeologic characteristics of the Site and vicinity. Such information may be indicative of the direction and/or extent that a contaminant could migrate in the event of a spill or release.
- **Regulatory Agency Records Review:** We reviewed publicly available Federal, State, and local regulatory agency records to obtain information that could potentially help identify RECs at or potentially affecting the Site.
- **Site History:** We reviewed historical references to assess the history of previous uses of the Site and surrounding area to identify those that could have led to RECs on or near the Site. Historical sources reviewed included aerial photographs, topographic maps, and city directories. In addition, we conducted interviews with persons who were expected to be reasonably knowledgeable about historical and/or current conditions at and uses of the Site.

- **Site Reconnaissance:** We performed a site reconnaissance to observe site conditions and activities for indications of evidence of RECs. The site reconnaissance was for the Site only. Offsite properties and features were viewed solely from the vantage of the Site and public thoroughfares.

1.3 Report Limitations

We prepared this Phase I ESA report exclusively for the Client. The information obtained is only relevant for the dates of the records reviewed or as of the date of the latest site visit. Therefore, the information contained herein is only valid as of the date of the report and will require an update to reflect more recent records/site visits.

The Client should recognize that a Phase I ESA is not a comprehensive site characterization and should not be construed as such. The findings and conclusions presented in this report are predicated on the site reconnaissance, a review of the specified regulatory records, and a review of the historical usage of the Site, as presented in this report. The Client should also understand that wetlands, asbestos-containing building materials, lead-containing paint, lead in drinking water, radon, mercury related to mining activities, methane, and mold surveys were not included in the scope of services for this Phase I ESA. Assessment for potential naturally occurring hazards such as asbestos and arsenic also was not included.

Therefore, the report should only be deemed conclusive with respect to the information obtained. No guarantee or warranty of the results of the Phase I ESA is implied within the intent of this report or any subsequent reports, correspondence or consultation, either express or implied. We strived to conduct the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.

1.4 Data Gaps

ASTM *Designation E 1527-13* defines a data gap as “a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information.” Data gaps could include such things as insufficient historical information, the inability to interview persons with direct site knowledge (e.g., the owner(s), past owner(s), tenants, workers, etc.) or the lack of access to all parts of a site during the site reconnaissance. No significant data gaps were identified during the performance of this Phase I ESA. Sanborn maps were not available for the Site, however, this is not considered a data gap as it did not affect our ability to assess the historical use of the Site.

2. SITE DESCRIPTION

This section provides information regarding the location and physical characteristics of the Site including its size, topography, geologic, soil, and hydrogeologic conditions.

2.1 Location and Legal Description

The Site is located northwest of the intersection of Highway 74 and Briggs Road in Menifee, California (Figure 1). The Site is approximately the southern quarter of County of Riverside assessor's parcel number (APN) 327-320-013-9 (Appendix A). The Site is located in Section 12 of Township 5 South, Range 3 West, San Bernardino Base and Meridian on the United States Geological Survey's (USGS) *Romoland, California, 7.5-minute Topographic Map* (USGS, 2015).

2.2 Site and Vicinity General Characteristics

The Site is an undeveloped agricultural property. The site vicinity consists of similar agricultural properties, a community center/park, rural residential development, and a high school. The Site Plan (Figure 2) depicts the site boundaries and adjoining properties.

2.2.1 Topography

The topography of the Site and surrounding vicinity is relatively flat. The *USGS Romoland, CA 7.5-minute Topographic Map* (USGS, 2015) shows the site elevation at approximately 1,520 feet above mean sea level, with a general topographic gradient (downslope) of the site vicinity to the southwest.

2.2.2 Geologic Conditions

The Site is located in the Romoland area of southwestern Riverside County within the Peninsular Ranges Geomorphic Province (Province). The Peninsular Ranges are bound by the Transverse Ranges (San Gabriel and San Bernardino Mountains) to the north, and the Colorado Desert Geomorphic Province to the east. The Province extends westward into the Pacific Ocean and southward to the tip of Baja California. Geologic units within the Peninsular Ranges consist of granitic and metamorphic bedrock highlands and deep and broad alluvium-filled valleys. Faulting within the Province is typically northwest trending and includes the San Andreas, San Jacinto, Elsinore, and Newport-Inglewood faults. The Site is located on an old alluvial fan emanating from the surrounding Lakeview Mountains. The Site is underlain by older alluvial fan deposits underlying a veneer of topsoil, as observed in the concurrent Geotechnical Investigation (Geocon, 2017).

2.2.3 Soil Conditions

We obtained information concerning soil conditions in proximity to the Site from the United States Department of Agriculture's (USDA) *Web Soil Survey* (<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>). The *Web Soil Survey* information indicates that surficial soils on the Site are classified as primarily Ramona sandy loam, which consists of a sandy loam on 2 to 5 percent slopes.

Other surficial soils on the Site are classified as Greenfield sandy loam, consisting of a sandy loam on 2 to 8 percent slopes, and Exeter sandy loam, consisting of a sandy loam on 0 to 2 percent slopes. All of these soils formed on alluvial fans and terraces from granitic materials and are described as well-drained.

2.2.4 Hydrologic and Hydrogeologic Conditions

We reviewed groundwater quality and occurrence information available from the California Department of Water Resources (DWR, 2017) for the site vicinity. Groundwater was encountered at depths greater than 62 feet in wells within 0.5 mile of the Site between 2011 and 2015. In our concurrent geotechnical investigation of the Site, we did not encounter groundwater in borings drilled to a maximum depth of 51.5 feet (Geocon, 2017).

The nearest surface water is an unnamed drainage along the southern boundary of the Site.

2.3 Current and Planned Uses of the Site

The Site is currently an agricultural field. The planned use of the Site is a commercial retail center.

2.4 Descriptions of Structures, Roads, Other Improvements on the Site

There are no improvements on the Site with the exception of a channelized drainage along the southern site boundary. A chain-link fence extends for approximately 20 feet along the drainage at the southeastern site boundary.

2.5 Current Uses of Adjoining Properties

Current uses of adjoining properties include similar rural agricultural use to the west, north, and east. Briggs Road is immediately adjacent to the east. California Highway 74 is adjacent to the south, beyond which is Heritage High School.

3. USER-PROVIDED INFORMATION

This section summarizes responses to inquiries made to the Client for site information. The Client was asked if they know of previous environmental reports or documents that may exist and, if so, whether copies could be provided. They were also asked if they have knowledge of legal or administrative proceedings involving the Site. Dan Long, the client representative, completed a User Questionnaire (Appendix B).

3.1 Title, Appraisal, and Sale Agreement Records

The Client provided a *Preliminary Report of Title Insurance* (Title), issued by First American Title Company, dated October 6, 2016. The Title is for a Policy of Title Insurance vested in John V. Motte and Evelyn E. Motte, Trustees of the John V. Motte and Evelyn E. Motte 1976 Family Trust,

dated June 24, 1976, and includes Riverside County APNs 327-320-001-8, 327-320-010-6, and 327-320-013-9. The Title notes exceptions for easement for roads, utility lines and supporting equipment, and drainages. Some of these easements may be related to parts of the APNs of which the Site is not a part. None of the exceptions suggests the presence of RECs on the Site or adjacent properties.

3.2 Environmental Liens or Activity and Use Limitations

Mr. Long stated that he is unaware of any environmental liens on, or use limitations for, the Site.

3.3 Specialized Knowledge

In his capacity as project manager, Mr. Long has reviewed previously completed documents regarding the Site and is aware of the past agricultural uses. Mr. Long indicated that the owner's representative stated the Site was previously only dry farmed.

3.4 Commonly Known or Reasonably Ascertainable Information

Mr. Long stated that the Site is vacant with no development.

3.5 Owner, Property Manager, and Occupant Information

Mr. Long stated that the Site is owned by The John and Evelyn E. Motte 1976 Family Trust, dated June 24, 1976. The Site is managed by the Rancon Group.

3.6 Valuation Reduction for Environmental Issues

Mr. Long indicated that he was not aware of any environmental conditions on the Site which could lead to a potential valuation reduction of the Site.

3.7 Other Documents Provided by the Client

Mr. Long provided a previously completed Phase I Environmental Site Assessment (ESA) for the Site. The ESA was conducted by Natec International, Inc., dated March 15, 2005, and concluded that there were no areas of environmental concern regarding the Site at the time of the report. Mr. Long also provided a County of Riverside Environmental Assessment Initial Study which included the Site as part of the larger assessment area. This study provides no specific information or comment on the environmental conditions of the Site.

3.8 Reason for Performing Phase I ESA

The Client requested the Phase I ESA for updated entitlements and proposed development purposes.

4. RECORDS REVIEW

This section summarizes our review of readily available agency records for the Site and properties in the surrounding vicinity.

4.1 Standard Environmental Record Sources

Environmental Data Resources, Inc. (EDR) searched federal, state, and local environmental databases for the Site and surrounding area within one mile of the Site. A copy of The EDR *Radius MapTM Report with GeoCheck*, dated March 27, 2017, is included as Appendix C.

4.1.1 Site

The Site is not listed in any of the databases searched by EDR.

4.1.2 Nearby Properties

The adjacent property south of the Site is identified on two databases searched by EDR. Heritage High School (listed as High School No. 3) is listed on the EnviroStor and SCH databases. That property is listed as having had a school investigation performed under the oversight of the Department of Toxic Substances Control (DTSC). Chemicals of potential concern included pesticides, petroleum hydrocarbons, polychlorinated biphenyls (PCBs), and polynuclear aromatic hydrocarbons (PAHs) due to past agricultural use. The DTSC issued a letter stating that no further action was required on January 12, 2005. This facility is not expected to have caused an REC at the Site due to its regulatory status.

No other properties within ¼ mile of the Site are listed on databases searched by EDR.

4.1.3 Orphan Summary

The Orphan Summary in EDR's *Radius MapTM Report* identifies properties that have incomplete address information and could not be specifically plotted. The Orphan Summary lists two properties. Based on the approximate locations of the properties and the databases in which the properties are listed, it does not appear likely that existing or former activities associated with the listed facilities would have caused an REC at the Site.

4.2 Vapor Encroachment Screening/Conditions

The *Vapor Encroachment Screen Report*, dated April 17, 2017, provided by EDR (Appendix D), indicates that no properties within the Area of Concern had releases of either volatile organic compounds (VOCs) or petroleum VOCs.

4.3 Additional Environmental Record Sources

We searched additional readily available environmental record sources for properties/facilities within approximately ¼ mile of the Site. This section summarizes our findings.

4.3.1 GeoTracker and EnviroStor Websites

We searched the California State Water Resources Control Board's GeoTracker (<http://geotracker.waterboards.ca.gov/>) and the California Department of Toxic Substances Control's (DTSC) EnviroStor (<http://www.envirostor.dtsc.ca.gov/public/>) online databases for information regarding properties/facilities of concern within ¼ mile of the Site. Other than information for the adjoining high school site, EnviroStor and GeoTracker do not have information for properties/facilities within approximately ¼ mile of the Site.

4.3.2 State of California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR)

We reviewed information available from DOGGR (<http://www.conservation.ca.gov>) for existing/former oil, gas, or geothermal wells on or within the site vicinity. No oil and gas wells are listed on or adjacent to the Site.

4.3.3 County of Riverside Department of Agriculture, Weights and Measures

The County of Riverside Department of Agriculture, Weights and Measures maintains records regarding restricted pesticide use at the Site. No response to our inquiry has been received to date.

4.3.4 County of Riverside Department of Environmental Health

The County of Riverside Department of Environmental Health (DEH) maintains records of underground storage tanks (UST) releases and hazardous materials releases and cleanups for properties and facilities in Riverside County. DEH responded that a search of their records requires a specific site address. No records were returned.

5. HISTORICAL USE

This section summarizes information we obtained from a variety of sources regarding the historical uses of the Site and identifies historical uses that could have led to RECs. The sources of information included historical aerial photographs, historical topographic maps, and city directories provided by EDR.

5.1 Sanborn, Inc. Fire Insurance Maps

According to EDR's *Certified Sanborn® Map Report* dated March 27, 2017, Sanborn maps do not exist for the Site or site vicinity.

5.2 Aerial Photographs

We reviewed historical aerial photographs for the years 1938, 1949, 1953, 1961, 1967, 1978, 1985, 1989, 1996, 2002, 2005, 2006, 2009, 2010 and 2012 (Appendix E) for indications of past land uses that had the potential to have impacted the Site through the use, storage or disposal of hazardous substances and/or petroleum. The following table summarizes the observations of the Site and adjacent properties on the aerial photographs.

AERIAL PHOTOGRAPH REVIEW SUMMARY

Year	Observations	
	Site	Adjacent Properties
1938 (1" = 500")	The Site appears to have been agricultural land used for farming.	Adjacent properties also appear to have been agricultural land used for farming. The property to the east appears to have had farm buildings and improvements. Property to the south may have had a well or other farming-related structure. A braided stream was present through the center of the property, with flow in a northeast-southwest direction.
1949 (1" = 500")	We observed no significant change in conditions from those observed on the previous photograph.	There appear to have been some changes in the structures east of the Site. There are fewer structures than previously observed.
1953 (1" = 500")	We observed no significant change in conditions from those observed on the previous photograph.	We observed no significant change in conditions from those observed on the previous photograph.
1961 (1" = 500")	We observed no significant change in conditions from those observed on the previous photograph.	The farming structures to the east appear to have been removed.
1967 (1" = 500")	We observed no significant change in conditions from those observed on the previous photograph.	We observed no significant change in conditions from those observed on the previous photograph, except that a structure had been added to the east-southeast.
1978 (1" = 500")	We observed no significant change in conditions from those observed on the previous photograph.	We observed no significant change in conditions from those observed on the previous photograph.
1985 (1" = 500")	We observed no significant change in conditions from those observed on the previous photograph.	We observed no significant change in conditions from those observed on the previous photograph, except that several more structures had been added to the east-southeast.
1989 (1" = 500")	We observed no significant change in conditions from those observed on the previous photograph.	We observed no significant change in conditions from those observed on the previous photograph, except that the site to the east-southeast appears to have been in use as a storage facility.
1996 (1" = 500")	We observed no significant change in conditions from those observed on the previous photograph.	Drainages across the property to the east appear more pronounced. There were fewer structures on the property to the east-southeast.

Year	Observations	
	Site	Adjacent Properties
2002 (1" = 500')	We observed no significant change in conditions from those observed on the previous photograph.	We observed no significant change in conditions from those observed on the previous photograph.
2005 (1" = 500')	We observed no significant change in conditions from those observed on the previous photograph.	Development had begun on the school site to the south of the Site. The structures had been removed from the property to the east-southeast and the portion previously containing buildings had been graded.
2006 (1" = 500')	We observed no significant change in conditions from those observed on the previous photograph.	Construction of the school and an adjacent facility to the south had begun. A storage facility had been constructed on the property to the east-southeast.
2009 (1" = 500')	We observed no significant change in conditions from those observed on the previous photograph.	Construction on the school to the south had been completed.
2010 (1" = 500')	We observed no significant change in conditions from those observed on the previous photograph.	Grading and construction on the community center site to the north had begun.
2012 (1" = 500')	We observed no significant change in conditions from those observed on the previous photograph.	Construction on the community center site to the north had been completed.

We observed no site or vicinity conditions on the aerial photographs that would suggest the potential presence of RECs on the Site or adjoining or nearby properties.

5.3 Topographic Maps

We reviewed historical topographic maps for the years 1901, 1942, 1943, 1947, 1953, 1973, 1979, and 2012 (Appendix F). The following summarizes observations of the Site and adjacent properties on the historical topographic maps.

TOPOGRAPHIC MAP REVIEW SUMMARY

Year	Observations	
	Site	Adjacent Properties
1901 (1:125,000)	No land use is depicted.	No land use is depicted, with the exception of improved roads to the south (State Highway 74) and east (Briggs Road).
1942 (1: 62,500)	An intermittent blue-line stream is depicted across the property from northeast to southwest.	Intermittent blue-line streams are depicted across properties to the east and south. Buildings are depicted on properties to the east and southeast.

Year	Observations	
	Site	Adjacent Properties
1943 (1:62,500)	No significant changes are depicted on the Site from the previous topographic map.	No significant changes are depicted from the previous topographic map.
1947 (1:50,000)	No significant changes are depicted on the Site from the previous topographic map.	No significant changes are depicted from the previous topographic map.
1953 (1:24,000)	No streams are depicted on the Site.	No blue-line streams are depicted on the adjacent properties. No buildings are depicted on the property to the southeast. A well is depicted on the property to the south.
1973 (1:24,000)	No significant changes are depicted on the Site from the previous topographic map.	Buildings are depicted on the property to the southeast.
1979 (1:24,000)	No significant changes are depicted on the Site from the previous topographic map.	No buildings are depicted on the property to the east of the Site.
2012 (1:24,000)	No significant changes are depicted on the Site from the previous topographic map.	No buildings are depicted on the property to the southeast of the Site.

The historical topographic maps depict nothing that would suggest the presence of RECs on the Site or adjacent properties.

5.4 City Directories

EDR prepared a *City Directory Image Report* of cross-referenced directories reviewed at approximately 5-year intervals from 1975 through 2013. The Site has no listed address, therefore there are no listings for the Site. There are no listings for adjacent properties until 2013 when the Heritage High School and Marion B. Ashley Community Center are listed at 26001 Briggs Road and 25625 Briggs Road, respectively. A copy of the EDR city directory image report including information regarding offsite addresses is included in Appendix G.

6. SITE RECONNAISSANCE

This section summarizes observations of the Site and surrounding properties made during the site reconnaissance.

6.1 Methodology and Limiting Conditions

Alice Orton, Staff Geologist with Geocon, performed the site reconnaissance on March 28, 2017, by walking the Site. Ms. Orton performed the offsite survey by making observations of adjacent properties from the Site and adjacent roads and thoroughfares. Vegetation growth limited observation of the ground surface over much of the Site. Weather on the day of the site reconnaissance was sunny with temperatures in the mid-70s. Photographs of various site features and

offsite properties are appended. Figure 2 illustrates selected site features and photo locations and orientations.

6.2 General Site Setting

The Site is located in an area of mainly similar agricultural properties. Heritage High School is located beyond Highway 74 south of the Site. Residential development, the Marion V. Ashley Community Center, and various businesses are located within ¼ mile of the Site.

6.3 Onsite Survey

The Site consists of agricultural land (Photo #s 1-3). A channelized drainage is present along the eastern and southern margins of the Site (Photo #s 4-6). The drainage enters under the road from the east and drains to the west. The drainage inlet is concreted and riprapped. A high pressure gas pipeline and other underground utilities are present within the road right-of-way to the south of the Site (Photo #7) along State Highway 74. We observed no conditions or uses that would suggest the presence of RECs on the Site.

6.4 Offsite Survey

Properties within the site vicinity include:

- **North** – Agricultural property with residences and the community center beyond.
- **East** – Agricultural properties, with residential and commercial properties beyond.
- **South** – Heritage High School and agricultural properties.
- **West** – Agricultural properties.

We observed no conditions or uses on adjoining or nearby properties with the potential to cause an REC on the Site.

7. INTERVIEWS

We interviewed Mr. Long, Director of Development for the Rancon Group, via a site owner questionnaire and email correspondence regarding the current and past uses of the Site. Mr. Long stated that the Site is vacant land, previously used for agricultural purposes, with no history of development and no structures. Mr. Long stated that there is a known drainage ditch along the southern site border which drains to the west and south, but that there are no known wells, tanks, or storage structures on the Site. Mr. Long stated that he has no knowledge of any hazardous substances or petroleum products on the Site. As described in Section 3.7, Mr. Long provided other documentation regarding the Site. These documents either provide no specific information on the environmental conditions of the Site, or indicate that there were no areas of environmental concern at the time the reports were issued.

8. CONCLUSIONS AND RECOMMENDATIONS

We have performed a Phase I ESA, in general conformance with the scope and limitations of ASTM *Designation E 1527-13*, for the Site in Menifee, California. Any exceptions to, or deletions from, this practice are described in Section 1.4 of this report.

The assessment has revealed no evidence of RECs on the Site.

Agricultural use has been ongoing on the Site from at least 1938 until the present and represents a potential environmental concern because of the possible use of pesticides. Soil sample collection and analysis would be necessary to confirm the potential presence of pesticides in soil and may be required by the local permitting agency prior to redevelopment.

Prior to any construction activities near the natural gas pipelines on the south of the Site, the owners of those lines should be notified so they can confirm their locations and observe construction activities at their discretion.

9. REFERENCES

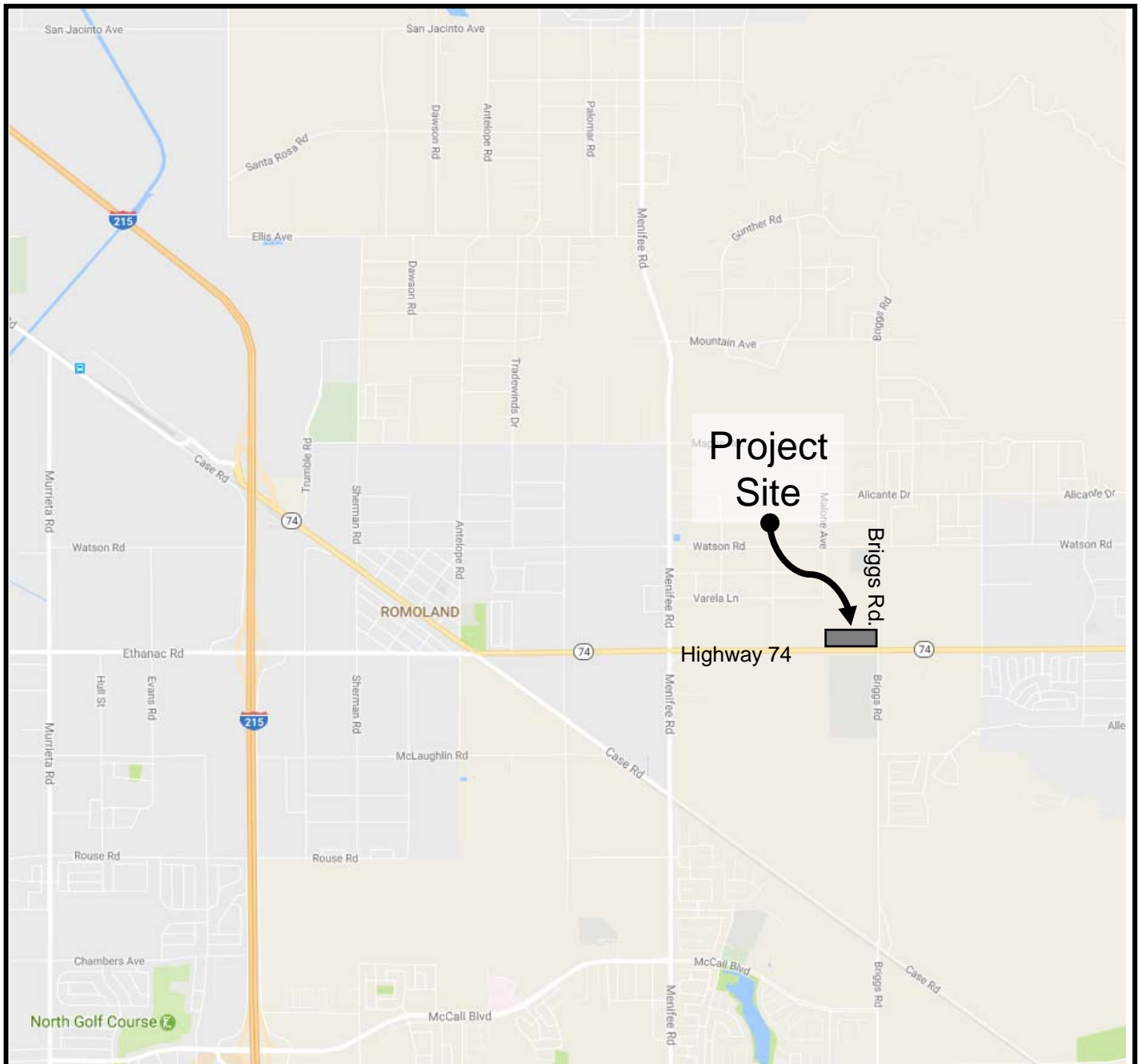
- American Society for Testing and Materials, 2013, *Designation E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*.
- California Division of Oil, Gas & Geothermal Resources (CA DOGGR), 2017, *Well Finder Database* website, <http://www.conservation.ca.gov/dog/Pages/Wellfinder.aspx>; accessed April 17.
- California Department of Water Resources (CA DWR), 2017, *Water Data Library* website, www.water.ca.gov/waterdatalibrary/index.cfm; accessed April 14.
- California State Water Resources Control Board (CA SWRCB), 2017, *GeoTracker* website, <https://geotracker.waterboards.ca.gov>; accessed April 14.
- California Department of Toxic Substances Control (CA DTSC), 2017, *EnviroStor* website, <http://www.envirostor.dtsc.ca.gov>; accessed April 14.
- County of Riverside, undated, *Environmental Assessment Form: Initial Study*, EA No. 40275.
- First American Title Company, 2016, *CTLA Preliminary Report, MR56 Commercial*, Order No. NHSC-5284311 (29), dated October 6.
- Geocon West, Inc., 2017, *Geotechnical Investigation and Percolation Testing, MR 56 Commercial Site, NRC Highway 74 and Briggs Road, Menifee, California*; Geocon Project No. T2765-22-01; unpublished.
- Natec International, Inc., 2005, *Phase One Environmental Site Assessment, Northwest Corner of Briggs and Highway 74, Romoland, CA*, dated March 15.
- United States Department of Agriculture, Natural Resources Conservation Service (NRCS), 2017, *Web Soil Survey* website, <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>; accessed April 14.
- United States Geological Survey, 2015, *Romoland, California, Quadrangle Topographic Map (7.5', 1:24,000)*.

10. QUALIFICATIONS

This Phase I ESA report was prepared by Ms. Alice Orton and reviewed by Mr. Jim Brake. We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312. 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 the all appropriate inquiries investigation in conformance with the standards and practices set forth in 40 CFR Part 312.

Ms. Orton is a Staff Geologist for Geocon. She has Bachelor of Science and Master of Science degrees in Geology.

Mr. Brake has an MS degree in Geological Science and 30 years of experience in environmental investigation and remediation, including implementation of Remedial Investigation/Feasibility Study programs and soil and groundwater remedial actions for private industrial and government clients. He has managed a wide variety of projects for clients in the manufacturing, transportation, mining, automobile and real estate industries including Environmental Protection Agency and DTSC Superfund sites. Mr. Brake has extensive experience in the performance of Phase I and II ESAs of commercial, industrial, and agricultural properties throughout Northern California.



N

NOT TO SCALE

SOURCE: Google Maps, 2017

VICINITY MAP

GEOCON
WEST, INC.



GEOTECHNICAL ENVIRONMENTAL MATERIALS
41571 CORNING PLACE, SUITE 101, MURRIETA, CA 92562-7065
PHONE 951-304-2300 FAX 951-304-2392

AMO

MR 56 COMMERCIAL SITE
NORTHWEST OF HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

APRIL, 2017

PROJECT NO. T2765-22-02

FIG. 1



LEGEND

Locations are approximate

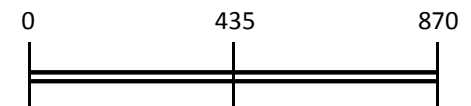


Site Boundary



Site Photograph Location and Orientation

SOURCE: Google Maps, 2017



SCALE 1" = 435'

GEOCON
WEST, INC.



GEOTECHNICAL ENVIRONMENTAL MATERIALS
41571 CORNING PLACE, SUITE 101, MURRIETA, CA 92562-7065
PHONE 951-304-2300 FAX 951-304-2392

AMO

SITE PLAN

MR 56 COMMERCIAL SITE
NORTHWEST OF HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

APRIL, 2017

PROJECT NO. T2765-22-02

FIG. 2



Photo 1 – View to the southwest across the Site.



Photo 2 – View to the southeast across the Site, with high school facility to the south.

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PHONE 951-304-2300 FAX 951-304-2392

AMO

SITE PHOTOGRAPHS

MR 56 COMMERCIAL SITE
NORTHWEST OF HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

APRIL, 2017

PROJECT NO. T2765-22-02



Photo 3 – View to the northeast across Site.



Photo 4 – View to the south of drainage at east side of Site.

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PHONE 951-304-2300 FAX 951-304-2392

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SITE PHOTOGRAPHS

MR 56 COMMERCIAL SITE
NORTHWEST OF HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

APRIL, 2017

PROJECT NO. T2765-22-02



Photo 5 – View to the southwest of drainage across the south side of Site.



Photo 6 – View to the northeast of drainage inlets at east side of Site.

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AMO

SITE PHOTOGRAPHS

MR 56 COMMERCIAL SITE
NORTHWEST OF HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

APRIL, 2017

PROJECT NO. T2765-22-02



Photo 7 – High Pressure Gas Pipeline marker along Highway 74 across the south side of Site (view to the northwest).

GEOCON
W E S T, I N C.



ENVIRONMENTAL GEOTECHNICAL MATERIALS
41571 CORNING PLACE, SUITE 101, MURRIETA, CA 92562
PHONE 951-304-2300 FAX 951-304-2392

AMO

SITE PHOTOGRAPHS

MR 56 COMMERCIAL SITE
NORTHWEST OF HIGHWAY 74 AND BRIGGS ROAD
MENIFEE, CALIFORNIA

APRIL, 2017

PROJECT NO. T2765-22-02

APPENDIX

A

APPENDIX

**B**

CLIENT-PROVIDED INFORMATION FOR THE SITE

SITE: MR56

Geocon Project Number:

*Please elaborate on any question answered "yes." If the question does not apply to the site, please answer "N/A".

1. If possible, please provide us with the title, appraisal, or sale agreement records to review and discuss in the Phase I ESA. See attached
2. Are you aware of any environmental liens or activity and use limitations associated with the Site? NO
3. Do you have any specialized knowledge of the Site? YES, I am the project manager for the site.
4. Please provide any commonly known or reasonably ascertainable information about the Site. Vacant lot, no development on-site.
5. Who currently owns, manages, and operates the Site? The John and Evelyn E. Motte 1975 Family Trust Dates June 24, 1976. Manager: The Rancon Group
6. Has the monetary value of the Site been reduced due to environmental issues associated with the Site or adjacent properties? NO
7. Why are you requesting a Phase I ESA for the Site? For updated entitlements and proposed development

DAN Long
NAME (IN PRINT)

4/12/17
DATE

[Signature]
SIGNATURE

Rancon Group, Div. of. development
COMPANY NAME AND TITLE

Please feel free to contact me if you have any questions.
When complete, return the questionnaire via email or fax:

Mr. Scott Nunes
Geocon West, Inc.
nunes@geoconinc.com
(951)304-2300 PHONE (951) 304-2392 FAX

PHASE I INTERVIEW QUESTIONNAIRE

The purpose of this questionnaire is to obtain information from knowledgeable individuals regarding the site. This questionnaire will become part of the Phase I ESA report.

A. SITE INFORMATION

Project Number: _____ Site Name/Reference: MR56
Site Location: Menifee, CA

B. INTERVIEW INFORMATION

Date/Time: 4/12/2017 ☒ In Person
Interviewer: _____ ☐ By Telephone, Number: _____
Person Interviewed: Dan Long ☐ By Facsimile, Number: _____
Title/Company: Dir of Development, The Rancon Group ☐ By E-mail, address: _____

1. What is your relationship to the site? Project Manager
2. Do you have good knowledge regarding the uses and physical characteristics of the site?
☒ Yes
☐ No If not, who does? _____ Phone Number: _____
3. Do you have good knowledge regarding the activities/processes conducted at the site?
☒ Yes
☐ No If not, who does? _____ Phone Number: _____

C. PROPERTY INFORMATION

1. To the best of your knowledge, what are the current and past uses of the site? Please describe with approximate dates.
The project site is vacant land with no history of development on the site. The property may have been used for agricultural uses in the past
2. To the best of your knowledge, what are the current and past uses of the adjoining properties?
Current use: None, vacant
Past Use: Agricultural
3. To the best of your knowledge, what are the current and past uses in the surrounding area?
To the south: High School, in the past agricultural
To the North: Vacant and Parks/School, in the past agricultural
To the East: Vacant, in the past agricultural
To the West: Vacant, in the past agricultural
4. Are there currently, or have there been in the past, any surface water bodies such as creeks or streams or other surface drainage on or adjacent to the site?
None
5. Any historical or current pools of liquid noted? Source? Location? Describe.

PHASE I INTERVIEW QUESTIONNAIRE

Page 2 of 7

None

6. Any historical or current standing water noted? Source? Location? Describe.

None

7. Are there any waste water discharges (including storm water) to a drain, ditch, or stream on the site and/or on adjacent properties:

Yes on the southern border of the site is a drainage ditch draining to the west and south

8. Are there currently, or have there been in the past, any wells (e.g. water, oil, gas, irrigation, injection, abandoned), pits, clarifiers, cisterns, cesspools, or similar receptacles noted where liquids drain, collect or are stored (sumps) that are likely to contain hazardous substances or petroleum products on the site or adjacent properties?

None

9. Identify the source of potable water on the site.

None on-site, potable water is available on adjacent properties and within the ROW

10. Identify the sewage disposal system on the site (type and age).

None on-site, sewer is available on adjacent properties and within the ROW

11. Is there any historical or current solid waste disposal on site? Describe.

None

12. Is there any historical or current unnatural fill or grading, particularly fill of unknown origin? Describe.

None

13. Is there any historical or currently stained soil or pavement? Describe.

None

14. Is there any historical or current stressed vegetation noted (other than caused by drought)? Describe.

None

15. To your knowledge, are there or have there been:

Hazardous substances on the site?

☐ Yes ☒ No

Petroleum products on the site?

☐ Yes ☒ No

If current uses involve hazardous substances or petroleum products, please identify the type, quantity and storage conditions of those substances.

Hazardous Substance or Petroleum Products	Location	Quantity	Storage Conditions
---	----------	----------	--------------------

PHASE I INTERVIEW QUESTIONNAIRE

Page 3 of 7

None			

If hazardous or otherwise controlled waste storage areas are present on the site, please identify the type, location, quantity, and storage conditions of the waste materials.

Material Stored	Location	Quantity	Storage Conditions
None			

16. If hazardous substances and/or petroleum products are present, are there indications of any of the following:

An existing release?

☐ Yes ☒ No

A past release?

☐ Yes ☒ No

A threat of their release?

☐ Yes ☒ No

If yes to any of the above, please describe: _____

17. Are there any aboveground or underground storage tanks? Identify tank volume, location, material, age.

AST/UST and Age	Location	Tank Volume	Material stored
None			

18. Are there any historical or current drums and/or other containers? Identify volume, material, and location.

Volume	Material	Location
None		

PHASE I INTERVIEW QUESTIONNAIRE

Page 4 of 7

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19. Have there been any historical or any current noxious odors noted on the Site? Source? Describe.

None

20. To your knowledge, are there any utility corridors on the Site? Describe.

None

21. Any electrical or hydraulic equipment likely to contain PCB's such as transformers, hydraulic lifts, or elevators (fluorescent light ballast excluded).

None

22. Are there any occupants on the Site? Describe and list duration of occupancy.

None

PHASE I INTERVIEW QUESTIONNAIRE

Page 5 of 7

23. Are there structures present on the site? Provide a general description of the structures on the site (amount, size, and age)?

Structure	Sq. Footage	Age
None		

24. If any structures identify the type of HVAC system and fuel source on the interior. Any boilers present?

None

25. Is the facility equipped with any backup generators? Fuel source?

None

26. Any historical or current stains or corrosion on floors, walls or ceilings?

None

27. Do you have good knowledge regarding the identity of any existing documents relating to the Site?

☒ Yes

☐ No If not, who does? _____ Phone Number: _____

28. To your knowledge, do any of the following documents exist with respect to the Site? If yes, please name the document and comment upon whether it is available for review.

Document	Availability/ Source	Title of Document
Environmental site assessment reports?	Yes	Prior CEQA document, MND
Environmental audit reports?	None	
Environmental permits?	None	
Storage Tank registrations?	None	
Underground Injection System registrations?	None	
Material safety data sheets (MSDS)?	None	
Community right-to-know plans?	None	
Safety plans?	None	
Spill Prevention, Countermeasure, & Control Plans?	None	
Illness and Injury Prevention Plans?	None	

PHASE I INTERVIEW QUESTIONNAIRE

Page 6 of 7

Document	Availability/ Source	Title of Document
Reports regarding hydrogeologic conditions on the site or surrounding area?	None	
Hazardous waste generator notices or reports?	None	
Geotechnical studies?	None	
Risk assessments?	None	
Recorded Activity and Use Limitations (AULs)?	None	

To your knowledge, do any of the following exist with respect to the Site?

29. Notices or other correspondence from any government agency relating to past or current violations of environmental laws? ☐ Yes ☒ No

If yes, describe: _____

30. Notices or other correspondence from any government agency relating to environmental liens encumbering the Site? ☐ Yes ☒ No

If yes, describe: _____

31. Pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances, or petroleum products in, on, or from the Site? ☐ Yes ☒ No

If yes, describe: _____

32. Notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products? ☐ Yes ☒ No

If yes, describe: _____

Page 7 of 7

A prior project was entitled and approved for the site and a CEQA document was approved and certified.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Update 1



First American Title

First American Title Company

1250 Corona Pointe Court, Suite 200
Corona, CA 92879

Mike O'Donnell
Rancon Real Estate
41391 Kalmia Street, Suite 100
Murrieta, CA 92562-9766

Customer Reference: MR56 Commercial
Order Number: NHSC-5284311 (29)

Title Officer: Hugo Tello
Phone: (951)256-5883
Fax No.: (866)782-3439
E-Mail: htello@firstam.com
Buyer:
Owner: Motte

PRELIMINARY REPORT

In response to the above referenced application for a policy of title insurance, this company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Exhibit A attached. *The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties.* Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit A. Copies of the policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

First American Title

Dated as of October 06, 2016 at 7:30 A.M.

The form of Policy of title insurance contemplated by this report is:

To Be Determined

A specific request should be made if another form or additional coverage is desired.

Title to said estate or interest at the date hereof is vested in:

JOHN V. MOTTE AND EVELYN E. MOTTE, TRUSTEES OF THE JOHN V. MOTTE AND EVELYN E. MOTTE, 1976 FAMILY TRUST, DATED JUNE 24, 1976

The estate or interest in the land hereinafter described or referred to covered by this Report is:

A fee.

The Land referred to herein is described as follows:

(See attached Legal Description)

At the date hereof exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

1. General and special taxes and assessments for the fiscal year 2016-2017.
First Installment: \$1,555.64, DUE
Penalty: \$0.00
Second Installment: \$1,555.64, DUE
Penalty: \$0.00
Tax Rate Area: 026-193
A. P. No.: 327-320-001-8 and 327-320-010-6 and 327-320-013-9

Affects: The land and other property.
2. The lien of special tax assessed pursuant to Chapter 2.5 commencing with Section 53311 of the California Government Code for Community Facilities District 91-1, as disclosed by Notice of Special Tax Lien recorded November 17, 1992 as Instrument No. [439123](#) of Official Records.
3. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.
4. An easement shown or dedicated on the Map of Romola Farms No. 5. recorded in [Book 14, Pages 44 and 45](#) of Maps.
For: road and incidental purposes.

5. An easement for poles, support, wires, and incidental purposes, recorded April 11, 1928 in [Book 758, Page 180](#) of Deeds.
In Favor of: the Southern Sierras Power Company
Affects: As described therein
6. An easement for poles, anchors, wires, cables, wires, fixtures and incidental purposes, recorded December 5, 1936 in [Book 303, Page 577](#) of Official Records.
In Favor of: the Southern California Telephone Company, a corporation
Affects: As described therein
7. An easement for poles, anchors, wires, cables, wires, fixtures and incidental purposes, recorded February 4, 1937 in [Book 311, Page 389](#) of Official Records.
In Favor of: the Southern California Telephone Company, a corporation
Affects: As described therein
8. An easement for slope and incidental purposes, recorded May 12, 1970 as Instrument No. [44270](#) of Official Records.
In Favor of: the State of California
Affects: As described therein
9. An easement for public road and utility, including drainage and incidental purposes, recorded February 25, 2010 as Instrument No. [20100086883](#) of Official Records.
In Favor of: County of Riverside, a political subdivision
Affects: as described therein

Prior to the issuance of any policy of title insurance, the Company will require:

10. With respect to the trust referred to in the vesting:
 - a. A certification pursuant to Section 18100.5 of the California Probate Code in a form satisfactory to the Company.
 - b. Copies of those excerpts from the original trust documents and amendments thereto which designate the trustee and confer upon the trustee the power to act in the pending transaction.
 - c. Other requirements which the Company may impose following its review of the material required herein and other information which the Company may require.

INFORMATIONAL NOTES

Note: The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than the certain dollar amount set forth in any applicable arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. If you desire to review the terms of the policy, including any arbitration clause that may be included, contact the office that issued this Commitment or Report to obtain a sample of the policy jacket for the policy that is to be issued in connection with your transaction.

1. We find no open deeds of trust. Escrow please confirm before closing.
2. Information in possession of the Company indicates that a division of land may have occurred involving the land described herein. Although the policy or policies of title insurance contemplated hereby will not insure against loss or damage by reason of any claim that the land described herein may not constitute a lawfully created parcel according to the Subdivision Map Act (Section 66410 et seq. of the California Government Code) and local ordinances adopted pursuant thereto, the city/county of Riverside may require one or more of the following prior to issuance of permits for development of the land:
 - a. A certificate of compliance recorded in the public records.
 - b. Filing of a final map or parcel map.
 - c. A waiver of a final map or parcel map.

The map attached, if any, may or may not be a survey of the land depicted hereon. First American expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.



First American Title

First American Title Company
1250 Corona Pointe Court, Suite 200
Corona, CA 92879
(951)256-5880
Fax - (909)476-2401

WIRE INSTRUCTIONS

for

**First American Title Company, Demand/Draft Sub-Escrow Deposits
Riverside County, California**

**First American Trust, FSB
5 First American Way
Santa Ana, CA 92707
Banking Services: (877) 600-9473**

**ABA 122241255
Credit to First American Title Company
Account No. 3097840000**

Reference Title Order Number 5284311 and Title Officer Hugo Tello

Please wire the day before recording.

LEGAL DESCRIPTION

Real property in the City of Menifee, County of Riverside, State of California, described as follows:

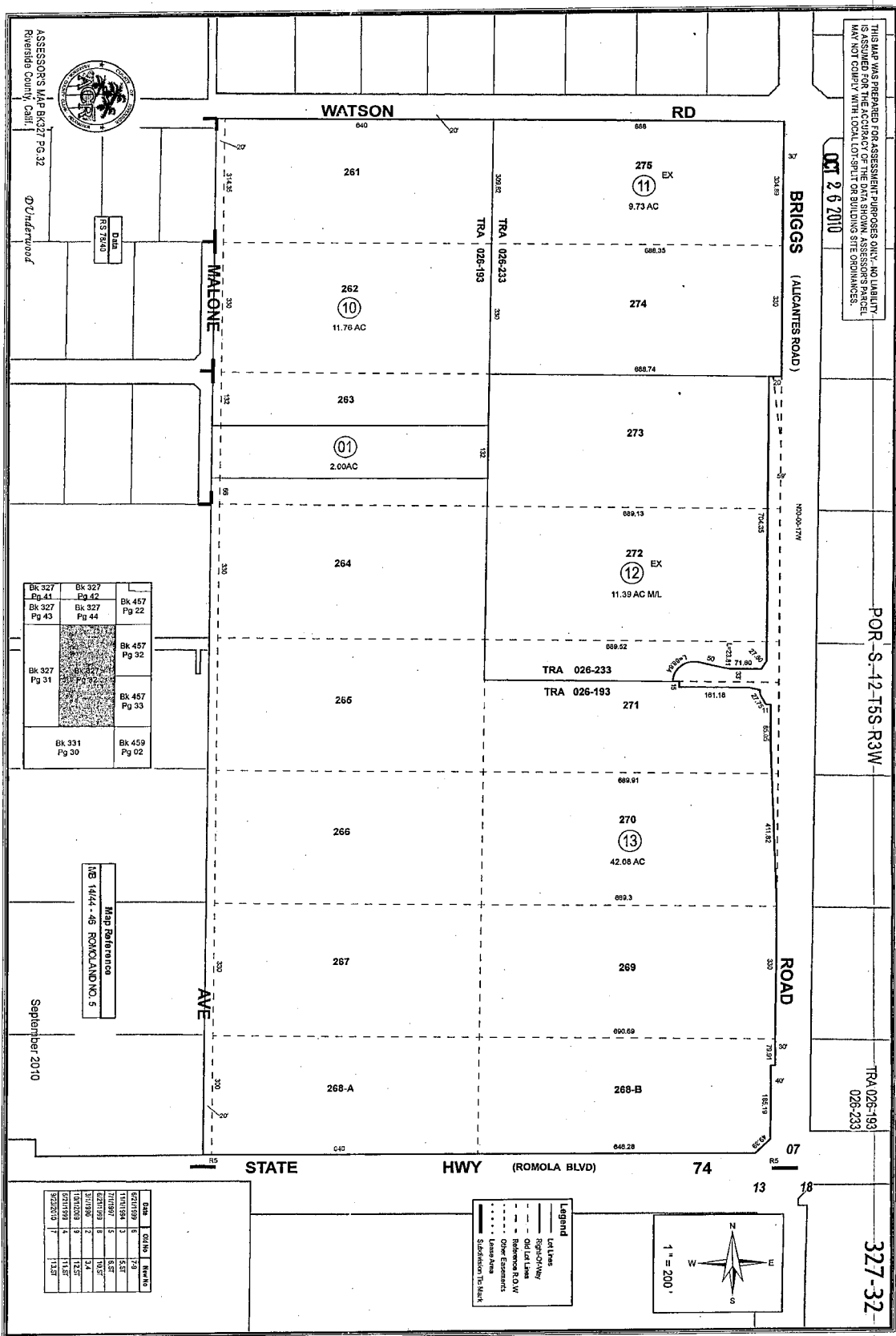
LOTS 263 THROUGH 267 INCLUSIVE, 268-A, 268-B AND LOTS 269 THROUGH 271 INCLUSIVE OF ROMOLA FARMS NO. 5 IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN [BOOK 14, PAGES 44 AND 45](#) OF MAPS, RIVERSIDE COUNTY RECORDS.

EXCEPTING FROM LOT 268-B THAT PORTION CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED SEPTEMBER 28, 1966 AS INSTRUMENT NO. [96186](#) OF OFFICIAL RECORDS.

ALSO EXCEPTING FROM LOT 271 THAT PORTION CONVEYED TO THE REDEVELOPMENT AGENCY OF THE COUNTY OF RIVERSIDE BY DEED RECORDED JUNE 19, 1998 AS INSTRUMENT NO. [98-251793](#) OF OFFICIAL RECORDS.

ALSO EXCEPTING FROM LOT 268-B THAT PORTION CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED JUNE 22, 1994 AS INSTRUMENT NO. [94-253036](#), OF OFFICIAL RECORDS.

APN: 327-310-001-8 AND 327-320-013-9 AND A PORTION OF 327-320-010-6



NOTICE

Section 12413.1 of the California Insurance Code, effective January 1, 1990, requires that any title insurance company, underwritten title company, or controlled escrow company handling funds in an escrow or sub-escrow capacity, wait a specified number of days after depositing funds, before recording any documents in connection with the transaction or disbursing funds. This statute allows for funds deposited by wire transfer to be disbursed the same day as deposit. In the case of cashier's checks or certified checks, funds may be disbursed the next day after deposit. In order to avoid unnecessary delays of three to seven days, or more, please use wire transfer, cashier's checks, or certified checks whenever possible.

EXHIBIT A
LIST OF PRINTED EXCEPTIONS AND EXCLUSIONS (BY POLICY TYPE)

CLTA STANDARD COVERAGE POLICY – 1990

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
- (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
 - (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
 - (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
 - (c) resulting in no loss or damage to the insured claimant;
 - (d) attaching or created subsequent to Date of Policy; or
 - (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
 Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public, records.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (12-02-13)**EXCLUSIONS**

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
 - a. building;
 - b. zoning;
 - c. land use;
 - d. improvements on the Land;
 - e. land division; and
 - f. environmental protection.

This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.

2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
 - a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
 - b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
 - c. that result in no loss to You; or
 - d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
5. Failure to pay value for Your Title.
6. Lack of a right:
 - a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
 - b. in streets, alleys, or waterways that touch the Land.

This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.
8. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
9. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	<u>Your Deductible Amount</u>	<u>Our Maximum Dollar Limit of Liability</u>
Covered Risk 16:	1% of Policy Amount Shown in Schedule A or \$2,500 (whichever is less)	\$10,000
Covered Risk 18:	1% of Policy Amount Shown in Schedule A or \$5,000 (whichever is less)	\$25,000
Covered Risk 19:	1% of Policy Amount Shown in Schedule A or \$5,000 (whichever is less)	\$25,000
Covered Risk 21:	1% of Policy Amount Shown in Schedule A or \$2,500 (whichever is less)	\$5,000

2006 ALTA LOAN POLICY (06-17-06)**EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;
 or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
 - (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

[Except as provided in Schedule B - Part II, [t[or T]his policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:

[PART I

[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.]

PART II

In addition to the matters set forth in Part I of this Schedule, the Title is subject to the following matters, and the Company insures against loss or damage sustained in the event that they are not subordinate to the lien of the Insured Mortgage:]

2006 ALTA OWNER'S POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;
 or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 or 10); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:

[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.
7. [Variable exceptions such as taxes, easements, CC&R's, etc. shown here.]

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (12-02-13)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.

(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.
10. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
11. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.



First American Title

Privacy Information

We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability

This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Information Obtained Through Our Web Site

First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet.

In general, you can visit First American or its affiliates' Web sites on the World Wide Web without telling us who you are or revealing any information about yourself. Our Web servers collect the domain names, not the e-mail addresses, of visitors. This information is aggregated to measure the number of visits, average time spent on the site, pages viewed and similar information. First American uses this information to measure the use of our site and to develop ideas to improve the content of our site.

There are times, however, when we may need information from you, such as your name and email address. When information is needed, we will use our best efforts to let you know at the time of collection how we will use the personal information. Usually, the personal information we collect is used only by us to respond to your inquiry, process an order or allow you to access specific account/profile information. If you choose to share any personal information with us, we will only use it in accordance with the policies outlined above.

Business Relationships

First American Financial Corporation's site and its affiliates' sites may contain links to other Web sites. While we try to link only to sites that share our high standards and respect for privacy, we are not responsible for the content or the privacy practices employed by other sites.

Cookies

Some of First American's Web sites may make use of "cookie" technology to measure site activity and to customize information to your personal tastes. A cookie is an element of data that a Web site can send to your browser, which may then store the cookie on your hard drive.

FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

Fair Information Values

Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.

Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.

Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.

Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.

Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.

Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
Northwest Corner of Briggs and Highway 74
Romoland, CA
March 15, 2005



Central Portion of Subject Property

By:
NATEC INTERNATIONAL, INC.
1100 Technology Circle, Suite A
Anaheim, CA 92805
714/678-2750
800/969-3228 (out of 714 area code)

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March 15, 2005

ATTN: Mr. Mike Naggar

MR 56 LLC: C/O MIKE NAGGAR & ASSOC.

445 South 'D' Street

Perris, CA 92587

**RE: Phase One Environmental Site Assessment
Northwest Corner of Briggs and Highway 74
Romoland, CA**

1.0 INTRODUCTION

This report presents the results of our Phase One Environmental Site Assessment performed on the subject property known as the northwest corner of Briggs and Highway 74, APN's 327-320-001, 007 and 010, in the City of Romoland, County of Riverside, California. Authorization for this assessment performed on the subject property was given by Mr. Mike Naggar with *MR 56 LLC c/o Mike Naggar & Associates*.

Report Organization

This report is divided into sections that discuss the field investigation, government records search, regulatory agency contacts and recommendations. Appendices follow the text.

1.1 Purpose and Scope of Work

The purpose of a Phase One Environmental Site Assessment is to attempt to discover past or present environmentally related events, conditions or operations that negatively impact the subject property. The research includes a search of available records concerning the property and the performance of an on-site inspection. Procedures followed in the performance of a Phase One Environmental Site Assessment include obtaining a government records search, researching various permits for the site, interviewing the occupants of the subject property and/or neighboring sites in close proximity, reviewing historical aerial photographs, obtaining supporting documents from regulatory agencies and conducting a physical survey of the subject property.

1.2 Involved Parties/Information Sources

The *NATEC International* Phase One Site Assessment is produced through the efforts of a California Registered Environmental Assessor working in conjunction with Federal, State and County regulatory agencies. These government agencies are contacted based on their involvement with the property in question. Agencies may not be accessed based on the operations, or lack thereof, conducted on the subject site. Attempts will be made to interview the property owner and/or present and past occupants of the subject site. Their description of past activities conducted on the subject property is an important addition to the historical uses of the property. The information obtained from these interviews will be relied upon as accurate, but will be compared to historic documents and photographs for authentication and verification.

Subject Site: Northwest Corner of Briggs & Hwy 74 Romoland, CA

The field investigation includes a site assessment, observations of the neighboring facilities and verification of building permits and other records, as necessary. This review and inspection was performed by Alan Dages, California Registered Environmental Assessor. The site visit was performed on Tuesday, February 24, 2005.

2.0 PRINCIPAL FINDINGS

Based upon a review of selected government regulatory agency records, the site history, the land use, the historical photographs and a physical inspection, two recognized environmental conditions were noted regarding the subject property.

The subject property is in a designated 100 year flood zone. A biological assessment for endangered species is likely to be required by the County of Riverside for the property in question.

3.0 SITE OVERVIEW

3.1 Location

The subject property is situated on the northwest corner of Briggs Road and Highway 74, in the City of Romoland, County of Riverside, California. The immediate surrounding area is undeveloped/agricultural.

3.2 Adjacent Properties

To the north of the subject property, is a school and single-family dwellings. The contiguous property to the east, across Briggs, is an undeveloped field. To the south, across Highway 74, is an undeveloped field as well. An undeveloped field is adjacent to the west, as are single-family dwellings.

None of the properties adjacent to the subject property were found to pose a problem for migratory contamination to the subject property. No environmentally unsafe storage leakage, spillage, discharges or emissions were noted emanating from any adjacent properties during the site visit.

3.3 Site Description

The subject property consists of an irregularly shaped, weed-covered, dirt field. It is covered with low-lying weeds. The top soil appears sandy.

There were no signs of hazardous materials in use on the subject site. There was no indication of dumping on the subject site. There was no evidence of container abandonment on the subject site.

3.4 Discharge/Disposal of Solid and/or Liquid Wastes

Septic Tanks and Cesspools - Septic tanks and cesspools are often associated with the disposal of wastewater from structures that are not served by public sewer systems. Septic tanks and cesspools may be associated with hazardous materials, if such materials have been inappropriately disposed of in the past via sinks. Information obtained from the site reconnaissance indicated that septic

tanks and cesspools might have existed on the subject property historically, as part of residential development.

Pits, Ponds, and Lagoons - Pits, ponds and lagoons are often associated with the disposal of solid and liquid wastes, which may include hazardous materials. Information obtained from the site assessment indicated that pits, ponds, and lagoons do not currently exist on the property. Based on the review of historical records of the subject site, it is unlikely that pits, ponds or lagoons have ever existed on the property.

Wells, Cisterns and Sumps - No evidence of the presence of wells, sumps or cisterns, such as holding tanks or wellheads, was observed at the subject property.

3.5 Utility Company Transformer Investigation

In 1976, the *United States Environmental Protection Agency* (US EPA) banned the manufacture and sale of poly-chlorinated biphenyls (PCB)-containing transformers. Prior to this date, transformers were frequently filled with dielectric fluid containing PCB-laden oil. By 1985, the US EPA required that commercial property owners with transformers containing more than 500 parts per million (ppm) PCBs must register the transformer with the local fire department, provide exterior labeling and remove combustible materials within 5.0 meters (40 Code of Federal Regulations 761.30: "Fire Rule").

The US EPA has the following categories for PCB-containing transformers:

- Non-PCB Containing Transformer, if less than 50 ppm PCB;
- PCB-Contaminated Transformer, if between 50 and 499 ppm PCB, and it must conform to the US EPA Fire Rule for disposal;
- PCB-Transformer, if greater than 500 ppm PCB.

No electrical transformers were identified at the site. Transformers in the vicinity are owned and operated by *Southern California Edison*. According to a utility representative, the majority of the transformers has been tested and is below 50 ppm PCB. Any remaining, untested transformers located in the city will be replaced in the event that any are found to contain more than 50 ppm PCB. The utility is responsible for ensuring that its transformers comply with all applicable regulations.

3.6 Asbestos Materials in Structures

Asbestos-containing building materials were widely utilized in structures built between 1945 and 1980. Common asbestos containing building materials include vinyl flooring and associated mastic, wallboard and associated joint compound, plaster, stucco, acoustic ceiling spray, ceiling tiles, heating system components and roofing materials. Commercial/industrial structures are affected by asbestos regulations if damage occurs or if remodeling, renovation or

demolition activities disturb asbestos containing building materials. There are no structures on the subject property.

3.7 Lead-Based Paint in Structures

Leaded paint was primarily utilized from the 1920s-1978. If the property in question is used as a dwelling, regulations are in effect that require identifications of lead-based paint. Commercial/industrial structures are affected by lead-based paint regulations if damage occurs or if remodeling, renovation or demolition activities disturb lead-based paint surfaces. There are no structures on the subject property.

3.8 Indoor Air Quality

There are no regulations requiring indoor air quality to be assessed. However, it has been proven that dirty air handling systems, newer airtight structures and buildings that have experienced water damage or leakage are prime candidates for "Sick Building Syndrome". There are no structures on the property in question.

3.9 Radon Gas

Radon is a radioactive gas that occurs naturally in the environment and cannot be seen, smelled or tasted. The human health effect associated with exposure to elevated levels of radon is an increased risk of developing lung cancer. The *US Environmental Protection Agency* (US EPA) and the *US Center for Disease Control* are concerned about the increased risk of lung cancer developing in individuals exposed to above average levels of radon in their homes or offices. In order to address these concerns, the US EPA conducted a radon survey and presented the results for various counties in 1993.

The EPA's map of Radon Zones assigns each of the 3,141 counties in the United States to one of three zones. The zone designations were determined by assessing five factors that are known to be important indicators of radon potential: indoor radon measurements, geology, aerial radioactivity surveys, soil parameters and foundation types. The subject property falls within the designation of Zone 3. Zone 3 counties have a predicted average indoor radon screening level of 0 - 4 picocuries per liter (pCi/l) of air. Based on the results of the survey, the subject property appears to be below the recommended EPA Action Level of four pCi/l. Based upon these results, radon is unlikely to adversely impact the subject property.

4.0 SITE HISTORY AND OPERATIONS

4.1 Site History

Historic information concerning the property in question was collected back to 1952 (aerial photo). At that time, the subject site consisted of an undeveloped field. There have been no significant changes to the property in question in the last 50 years.

4.2 Sanborn Map Review

Sanborn maps were not utilized as part of the historic research concerning the subject property. The mapping information was not available for this geographic region.

4.3 Historical Aerial Photograph Review

Historical photographs were reviewed at *Continental Aerial Photo, Inc.*, located in Los Alamitos, California. A Topcon mirror stereoscope, Model 3, with a 1.8x built-in magnifier, and 3x and 6x binoculars were used to conduct the reviews. During the review, the photographs were specifically examined for evidence of hazardous materials, as well as on and off-site features that may affect the environmental quality of the property. These features included sumps, pits, ponds, lagoons, aboveground tanks, landfills, outside storage of hazardous materials and general land use.

Six sets of stereoscopic aerial photographs were reviewed. None of the above anomalies were noted to be on the property.

Photo Dated 05/49 (AXM-9F-158, 159) - The property in question is situated on the northeast corner of Hwy 74 and Briggs Avenue, and along the west side of Briggs to Watson Road. The subject property consists of plowed agricultural utilized fields. The contiguous properties are similar in appearance. The immediate surrounding area is rural/agricultural/undeveloped.

Photo Dated 05/67 (AXM-1HH) - There are no significant changes evident to the subject property, its contiguous properties or the immediate surrounding area.

Photo Dated 02/77 (RIV 6-09) - There are no significant changes evident to the subject property, its contiguous properties or the immediate surrounding area.

Photo Dated 07/86 (86184-101) - There are no significant changes evident to the subject property, its contiguous properties or the immediate surrounding area.

Photo Dated 06/93 (C94-11-97) - There are no significant changes evident to the subject property. There is a school now constructed to the north of the subject property, at the south/west corner of Briggs and Watson Road and a development of single family homes to the north of the subject property.

Photo Dated 03/99 (C135-37-56) - There are no significant changes evident to the subject property, its contiguous properties or the immediate surrounding area.

4.4 Operations

There are no operations presently conducted on the subject property. There are no known historic operations.

4.5 Operational Permits, Manifests and Material Safety Data Sheets

EPA ID Number - An EPA ID number identifies a facility to the State and Federal governments as a hazardous waste generator. There have been no known operations conducted on the subject property that appear to require an EPA ID number.

Hazardous Waste Manifests - A hazardous waste manifest file is maintained when hazardous materials are transported and disposed of from a site. Operations on the site have not required the use of waste manifests.

Air Emissions - The *South Coast Air Quality Management District (SCAQMD)* issues permits for sites that are emitting hazardous waste into the atmosphere from their operations. There are no air emissions as part of the operations conducted on the subject site.

Material Safety Data Sheets (MSDS) - Material Safety Data Sheets are required for chemicals and products being used in businesses that may be of a hazardous nature. There has been no known chemical use on property in question.

5.0 ENVIRONMENTAL SETTING

5.1 Regional Physiographic/Geology

The geology of the coastal area of California is characterized by mountain ranges and faults. The California Coast Ranges consist of slices of crust that include crystalline rocks representing Mesozoic mountain-building activity, rocks of deep-water origin, and Tertiary rocks. The Transverse and Peninsular ranges are formed of similarly faulted and deformed rocks. The striking features of all of these mountainous terrains are the great faults – the Garlock Fault and the San Andreas Fault – that extend for about 1,000 miles.

The subject property is located in an area mapped by the USGS (United States Geological Survey) as Quaternary alluvium (Qal) – this is an area of sediment deposited by streams on riverbeds, flood plains, or alluvial fans. These loosely consolidated sediments have the potential for significant ground motion during an earthquake.

USGS topographic mapping information indicated the subject property is situated at an elevation of approximately 1,525 feet above sea level. There is a slight declining surface gradient to the southwest.

5.2 Groundwater Conditions

According to information obtained from Mr. David Jones, Geologist with the County of Riverside, there is a water well at the south/east corner of Briggs and Highway 74. Current depth to groundwater is found at approximately 72 feet below ground surface. Direction flow is not known but thought to be generally to the south/west.

5.3 Soil Conditions

The exposed soil on the subject property appeared to be free of surface staining.

5.4 Earthquake Faults

Mapping information, as published by the *State of California Department of Conservation, Division of Mines and Geology*, was referenced to determine if the property in question is part of any special studies zone as defined by the Alquist-Priolo Earthquake Fault Rupture Hazard Act of 1972, a mandatory study of active faults in California. An active fault zone is described as one that has had surface displacement within the Holocene Period (within the last approximate 11,000 years).

The property is not situated in a known active fault zone.

Many faults in the Southern California area (an active, volatile region that is part of the Pacific Rim and dominated by the San Andreas Fault) are as yet not discovered or undefined. Many portions of the Southern California area are subject to liquefaction of the soils as a result of a major earthquake. Liquefaction will cause severe property damage and possible building collapse.

5.5 Flood Zone Information

The *Federal Emergency Management Agency* (FEMA) has designated and mapped areas in which 100-year flood events have had an impact.

Based on *County of Riverside Flood Control Department* mapping information, the property in question is in a designated 100-year flood zone (Zone A).

5.6 Wetlands Designation

Wetlands is a collective term for marshes, swamps and similar areas. The Clean Water Act (1972), Section 404, establishes federal authority to regulate activities in wetlands. Many areas have been designated as wetlands; however, some land has yet to be assessed. In the immediate vicinity of the property in question, the surrounding sites are utilized as paved and covered commercial/industrial sites. According to mapping information (*US Department of Fish and Game*, undated), the site and the immediate surrounding area is not designated, or likely to be deemed, as a wetland.

5.7 Endangered Species

Congress passed the Endangered Species Act in 1973 (with significant amendments in 1978, 1982 and 1988). This law provided the means of

endangered and their habitat. The State of California currently has 259 endangered species listed. Based on the location of the property in question, endangered species are not likely on or in the immediate vicinity. Refer to the county or city-planning department to gather additional information and to obtain a list of approved biologists that may perform a biological survey.

5.8 Oil and Gas Wells

Oil and gas wells are potential concerns when they seep oil or gas, are not abandoned to current regulations or have associated surface contamination. They may also be associated with methane hazards. Unreported "wildcat" oil wells could be on or near the site.

Oil and gas field maps published by *Munger Maps* (1997) were reviewed for the property. The purpose of this review was to determine the possible presence of current or past oil and/or gas wells that could impact the property. Potential sources of hazardous wastes associated with the oil field operations include drilling fluids, crude oil spills, sump bottoms, waste oil, waste water lines and improper well abandonment.

Based on a review of the oil and gas maps, no plugged and abandoned or active oil and/or gas wells are located on the subject property.

5.9 Historic Pesticide Usage

Due to former usage, it is not likely that various pesticides, insecticides and/or herbicides were used on the property in question. There are no known reported pesticide/insecticide/herbicide contamination problems associated with the soil or groundwater in the vicinity of the subject property.

5.10 Electromagnetic Exposure

Utility lines used for transmitting high electrical voltage are suspected of causing a threat to human health with long term, low-level exposure. Presently, there is no firm scientific evidence to confirm this health concern.

Based on the proximity of the property in question to high voltage lines, there appears to be no environmentally related concern for electromagnetic exposure.

6.0 RESULTS OF INVESTIGATION

6.1 Site Inspection Observations

The subject property was found to exhibit no significant areas of environmental concern.

6.2 Site Records Review

Based on the undeveloped status of the subject property, there were no site records to review.

6.3 Synopsis of Previous Environmental Investigations

No previous environmentally-related reports are known to have been performed regarding the property in question.

6.4 Personal Interviews

No personal interviews were conducted for the purposes of this report.

7.0 SUMMARY OF GOVERNMENT RECORDS SEARCH

NOTE: This government records summary is based on the ASTM standard for investigating properties near the subject property. The ASTM Standard has defined these sites as being at various distances (based on each individual list). Other sites more distant in proximity may be listed but not considered critical and, therefore, not further investigated.

NPL (National Property List)- The NPL report is the United States Environmental Protection Agency's (USEPA) registry of the nation's worst uncontrolled or abandoned hazardous waste sites. NPL sites are targeted for possible long-term remedial action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980. The agency release date for the NPL list was December 2004.

There are no sites listed within a one mile radius of the subject property.

CORRACTS- The CORRACTS database contains information concerning Resource Conservation and Recovery Act (RCRA) facilities that have conducted, or are currently conducting, a corrective action. A Corrective Action Order is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may also be imposed as a requirement of receiving and maintaining a TSDF permit. The agency release date for Corrective Action Sites was September 2004.

There are no sites listed within a one mile radius of the subject property.

CERCLIS- The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) database is a comprehensive listing of known or suspected uncontrolled or abandoned hazardous waste sites. These sites have either been investigated, or are currently under investigation by the USEPA for the release of hazardous substances. Once a site is placed on the CERCLIS list, it may be subjected to several levels of review and evaluation, and ultimately placed on the National Priorities List (NPL). The agency release date for the CERCLIS list was September 2004.

There are no sites within a one-half mile radius of the subject property.

STATE-SITES- This database consists of potential or confirmed hazardous substance release properties. It is provided by the California Environmental Protection Agency (CAEPA), Department of Toxic Substance Control. The agency may be contacted at 916/323-3400. The agency release date for State Sites database was November 2004.

There is one site listed within a one mile radius of the subject property. Based on its distance from the subject property, this site does not appear to pose an environmental threat to the property in question.

LUST (Leaking Underground Storage Tanks)- This is a compilation of several agencies information including State of California Regional Water Quality Control Board, California Environmental Protection Agency, regional and City lists. The latest agency release date for these LUST lists was February 2005.

There are no sites listed within a one-half mile radius of the subject property.

SWL (Solid Waste Landfills)- This is a compilation of several agencies information including the United States Geological Survey (USGS), State of California Integrated Waste Management Board, local and City lists. The latest agency release date for these SWL lists was January 2005.

There are no sites listed within a one-half mile radius of the subject property.

UST/AST- (Underground and Aboveground Storage Tanks)- This is a compilation of several agencies information, including State of California Water Resource Control Board, County and City lists. The latest agency release date for these lists is January 2005.

There are no sites listed within a one-quarter mile radius of the subject property.

ERNS- ERNS is a national computer database system that is used to store information on the sudden and/or accidental release of hazardous substances, including petroleum, into the environment. The ERNS reporting system contains preliminary information on specific releases, including the spill location, the substance release, and the responsible party. The agency release date for Emergency Release Notification System was December 2004.

There are no sites listed within a one-eighth mile radius of the subject property.

RCRS-TSD- The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities that report generation, storage, transportation, treatment or disposal of hazardous waste. The agency release date for RCRIS-TSD information was September 2004.

There are no sites listed within a one-half mile radius of the subject property.

RCRIS - The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRIS Notifiers contains information on formerly regulated RCRA sites with more complete historical information. The agency release date for RCRIS was September 2004.

There are no sites listed within a one-quarter mile radius of the subject property.

8.0 CONCLUSIONS

8.1 Areas of No Apparent Environmental Concern

There are no apparent areas of environmental concern regarding migration of subsurface contamination from off-site sources. There are no apparent areas of environmental concern regarding the historic and current use of the subject property.

9.0 RECOMMENDATIONS

9.1 Further Investigation

Further environmentally related investigation is not recommended at this time.

10.0 LIMITATIONS

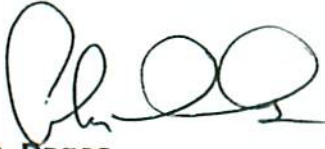
This report is intended to parallel the guidelines of a Preliminary Phase One Environmental Site Audit as outlined in the ASTM Standard 1527E 2000. This standard is intended to define the scope of due diligence necessary in a real estate transaction to provide for the "innocent buyer's defense" under the SARA amendments to CERCLA.

The findings set forth in this Phase One Environmental Site Assessment are strictly limited in time and scope to the date of evaluation(s). Government records searched are limited to the accuracy of the agency prepared lists. The conclusions presented in the report are based solely on the services described therein and not on scientific tasks or procedures beyond the scope of the agreed upon Phase One Environmental Site Assessment. It is hereby acknowledged that, within the scope of this survey, no level of assessment can ensure the real property is completely free of chemicals or toxic substances.

The regulatory agency data search is relied upon as accurate according to recognized procedures and current availability of records. Conclusions resulting from these searches are solely a result of the same. *NATEC International, Inc.* assumes no responsibility for events that are not part of these public records. Any monetary liability of Natec is limited to the price paid for this report.

Subject Site: Northwest Corner of Briggs & Hwy 74 Romoland, CA

NATEC International, Inc.



Alan D. Dages
Registered Environmental Assessor*
No. 02675 Expires: 06/30/05



11.0 REFERENCES

11.1 Published References

- 11.1.1 *Track Info Svc* Government Agency Data Report – Feb 2005
- 11.1.2 *Continental Aerial* Photographs – Reviewed Feb 2005
- 11.1.3 DOG Maps/1997 Munger Map Book
- 11.1.4 Alquist-Priolo Earthquake Fault Rupture Hazard Zones
- 11.1.5 USGS Topographic Mapping Information

11.2 Record of Personal Communications

- | | |
|--|----------------------------|
| 11.2.1 <i>County of Riverside, HAZMAT Division</i>
Ms. Suzanne Cauffiel | March 2005
951/358-5055 |
| 11.2.2 <i>County of Riverside, Flood Control District</i>
Mike | March 2005
951/955-1200 |
| 11.2.3 <i>County Of Riverside, County Geologist</i>
Mr. David Jones | March 2005
951/955-6863 |

APPENDIX

12.1 *Track Info Svc* Government Agency Data Report

12.2 Plat Map

12.3 Vicinity Map(s)

12.4 Additional Site Photographs

12.1 *Track Info Svc* Government Agency Data Report

TRACK ► INFO SERVICES, LLC

Environmental FirstSearch™ Report

TARGET PROPERTY:

MR56 BRIGGS & 74 HWY

ROMOLAND CA 92548

Job Number: 20507005

PREPARED FOR:

NATEC International, Inc.

1100 Technology Circle, Suite A

Anaheim, CA 92805

02-16-05



Tel: (323) 664-9981

Fax: (323) 664-9982

Environmental FirstSearch Search Summary Report

Target Site: MR56 BRIGGS & 74 HWY

ROMOLAND CA 92548

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	12-10-04	1.00	0	0	0	0	0	0	0
CERCLIS	Y	01-18-05	0.50	0	0	0	0	0	0	0
NFRAP	Y	06-23-04	0.12	0	0	-	-	-	0	0
RCRA TSD	Y	09-12-04	0.50	0	0	0	0	-	0	0
RCRA COR	Y	09-12-04	1.00	0	0	0	0	0	0	0
RCRA GEN	Y	09-12-04	0.25	0	0	0	-	-	0	0
RCRA NLR	Y	07-12-04	0.12	0	0	-	-	-	0	0
ERNS	Y	12-31-04	0.12	0	0	-	-	-	0	0
State Sites	Y	11-09-04	1.00	0	1	0	0	0	0	1
Spills-1990	Y	07-01-03	0.12	0	0	-	-	-	0	0
SWL	Y	01-19-05	0.50	0	0	0	0	-	0	0
Permits	Y	02-11-04	0.12	0	0	-	-	-	0	0
Other	Y	11-09-04	0.25	0	0	0	-	-	0	0
REG UST/AST	Y	01-04-05	0.25	0	0	0	-	-	0	0
Leaking UST	Y	02-07-05	0.50	0	0	0	0	-	0	0
- TOTALS -										

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available in TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services' databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped approximate address location and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services services proceeding are signifying an understanding of TRACK Info Services' searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

**Environmental FirstSearch
Site Information Report**

Request Date: 02-16-05
Requestor Name: Geoff Haber
Standard: ASTM

Search Type: COORD
Job Number: 20507005
Filtered Report

TARGET ADDRESS: MR56 BRIGGS & 74 HWY
ROMOLAND CA 92548

Demographics

Sites: 1	Non-Geocoded: 0	Population: NA
Radon: NA		

Site Location

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>		<u>UTMs</u>
Longitude:	-117.137077	-117:8:13	Easting:	487303.065
Latitude:	33.743765	33:44:38	Northing:	3733560.557
			Zone:	11

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 0 Mile(s)

Services:

ZIP Code	City Name	ST	Dist/Dir	Sel
-------------	-----------	----	----------	-----

	Requested?	Date
--	-------------------	-------------

Sanborns	No	
Aerial Photographs	No	
Topographical Maps	No	
City Directories	No	
Title Search	No	
Municipal Reports	No	
Online Topos	No	

***Environmental FirstSearch
Sites Summary Report***

TARGET SITE: MR56 BRIGGS & 74 HWY
ROMOLAND CA 92548

JOB: 20507005

TOTAL: 1 **GEOCODED:** 1 **NON GEOCODED:** 0 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	STATE	HIGH SCHOOL NO. 3 CAL33010072/VOLUNTARY CLEANUP PR	BRIGGS ROAD/PINACATE ROAD ROMOLAND CA 92585	0.09 SE	1

Environmental FirstSearch
Site Detail Report

TARGET SITE: MR56 BRIGGS & 74 HWY
ROMOLAND CA 92548

JOB: 20507005

STATE SITE

SEARCH ID: 1 **DIST/DIR:** 0.09 SE **MAP ID:** 1

NAME: HIGH SCHOOL NO. 3
ADDRESS: BRIGGS ROAD/PINACATE ROAD
ROMOLAND CA 92585
RIVERSIDE

REV: 11/09/04
ID1: CAL33010072
ID2:
STATUS: VOLUNTARY CLEANUP PROGRAM
PHONE:

CONTACT:

OTHER SITE NAMES (blank below = not reported by agency)

HIGH SCHOOL NO. 3

PERRIS UNION HIGH SCHOOL DISTRICT

AGRI-EMPIRE

GENERAL SITE INFORMATION

File Name (if different than site name): HIGH SCHOOL NO. 3

Status: VOLUNTARY CLEANUP PROGRAM
AWP Site Type: PROPOSED SCHOOL SITE PROPERTY
NPL Site:
Fund:
Status Date: 03192003
Lead: DEPT OF TOXIC SUBSTANCES CONTROL
Staff: JSEVREAN
DTSC Region & RWQCB #: CYPRESS
Branch: SCHOOL EVALUATION
RWQCB:
Site Access:
Groundwater Contamination:
Number of Sources Contributing to Contamination at the Site: 0

OTHER AGENCY ID NUMBERS (blank below = not reported by agency)

ID SOURCE NAME, & VALUE: CALSTARS CODE 404438-11

BACKGROUND INFORMATION (blank below = not reported by agency)

The approximately 60-acre site is surrounded predominantly by vacant or agricultural land. The site has been historically utilized for agricultural purposes, indicating the potential application of pesticides/chemicals.

PROJECTED ACTIVITIES (blank below = not reported by agency)

Activity: I/SE, IORSE, FFA, FFSRA, VCA, EA
Activity Status: VOLUNTARY CLEANUP PROGRAM
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: 03192003
Yards of Solids Removed: 0
Yards of Solids Treated: 0
Gallons of Liquid Removed: 0
Gallons of Liquid Treated: 0

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

TARGET SITE: MR56 BRIGGS & 74 HWY
ROMOLAND CA 92548

JOB: 20507005

STATE SITE

SEARCH ID: 1 **DIST/DIR:** 0.09 SE **MAP ID:** 1

NAME: HIGH SCHOOL NO. 3
ADDRESS: BRIGGS ROAD/PINACATE ROAD
ROMOLAND CA 92585
RIVERSIDE

REV: 11/09/04
ID1: CAL33010072
ID2:
STATUS: VOLUNTARY CLEANUP PROGRAM
PHONE:

CONTACT:

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

Comments Date: 03192003

: DTSC entered into an Environmental Oversight Agreement (Docket No. HSA-A 02/03-130) with the Perris Union High School District to provide oversight for a Preliminary Endangerment Assessment for the proposed High School No. 3 site.

**Environmental FirstSearch
Federal Databases and Sources**

ASTM Databases:

CERCLIS: *Comprehensive Environmental Response Compensation and Liability Information System.* The EPA's database of current and potential Superfund sites currently or previously under investigation. Source: Environmental Protection Agency.

Updated quarterly.

CERCLIS-NFRAP (Archive): *Comprehensive Environmental Response Compensation and Liability Information System Archived Sites.* The Archive designation means 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 this site on the National Priorities List (NPL). This 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 a potential NPL site.

Updated quarterly.

ERNS: *Emergency Response Notification System.* The EPA's database of emergency response actions. Source: Environmental Protection Agency. Data since January, 2001, has been received from the National Response Center as the EPA no longer maintains this data.

Updated quarterly.

FINDS: *The Facility Index System.* The EPA's Index of identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility. Source: Environmental Protection Agency.

Updated semi-annually.

NPL: *National Priority List.* The EPA's list of confirmed or proposed Superfund sites. Source: Environmental Protection Agency.

Updated quarterly.

RCRIS: *Resource Conservation and Recovery Information System.* The EPA's database of registered hazardous waste generators and treatment, storage and disposal facilities. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List). Source: Environmental Protection Agency.

RCRA TSD: *Resource Conservation and Recovery Information System Treatment, Storage, and Disposal Facilities.* The EPA's database of RCRIS sites which treat, store, dispose, or incinerate hazardous waste. This information is also reported in the standard RCRIS detailed data.

ASTM Databases (continued):

RCRA COR: Resource Conservation and Recovery Information System Corrective Action Sites. The EPA's database of RCRIS sites with reported corrective action. This information is also reported in the standard RCRIS detailed data.

RCRA GEN: Resource Conservation and Recovery Information System Large and Small Quantity Generators. The EPA's database of RCRIS sites that create more than 100kg of hazardous waste per month or meet other RCRA requirements. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List).

RCRA NLR: Resource Conservation and Recovery Information System sites No Longer Regulated. The EPA's database of RCRIS sites that create less than 100kg of hazardous waste per month or do not meet other RCRA requirements.

All RCRA databases are Updated quarterly

**Environmental FirstSearch
Federal Databases and Sources**

Non-ASTM Databases:

HMIRS: Hazardous Materials Incident Response System. This database contains information from the US Department of Transportation regarding materials, packaging, and a description of events for tracked incidents.

Updated quarterly.

NCDB: National Compliance Database. The National Compliance Data Base System (NCDB) tracks regional compliance and enforcement activity and manages the Pesticides and Toxic Substances Compliance and Enforcement program at a national level. The system tracks all compliance monitoring and enforcement activities from the time an inspector conducts and inspection until the time the inspector closes or the case settles the enforcement action. NCDB is the national repository of the 10 regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS is transferred to NCDB to support the need for monitoring national performance of regional programs.

Updated quarterly

NPDES: National Pollution Discharge Elimination System. The EPA's database of all permitted facilities receiving and discharging effluents. Source: Environmental Protection Agency.

Updated semi-annually.

NRDB: National Radon Database. The NRDB was created by the EPA to distribute information regarding the EPA/State Residential Radon Surveys and the National Residential Radon Survey. The data is presented by zipcode in Environmental FirstSearch Reports. Source: National Technical Information Service (NTIS)

Updated Periodically

Nuclear: The Nuclear Regulatory Commission's (NRC) list of permitted nuclear facilities.

Updated Periodically

PADS: PCB Activity Database System

The EPA's database PCB handlers (generators, transporters, storers and/or disposers) that are required to notify the EPA, the rules being similar to RCRA. This database indicates the type of handler and registration number. Also included is the PCB Transformer Registration Database.

Updated semi-annually.

Receptors: 1995 TIGER census listing of schools and hospitals that may house individuals deemed sensitive to environmental discharges due to their fragile immune systems.

Updated Periodically

Non-ASTM Databases (continued):

RELEASES: *Air and Surface Water Releases.* A subset of the EPA's ERNS database which have impacted only air or surface water.

Updated semi-annually.

Soils: This database includes the State Soil Geographic (STATSGO) data for the conterminous United States. It contains information regarding soil characteristics such as water capacity, percent clay, organic material, permeability, thickness of layers, hydrological characteristics, quality of drainage, surface, slope, liquid limit, and the annual frequency of flooding. Source: United States Geographical Survey (USGS).

Updated quarterly

TRIS: *Toxic Release Inventory System.* The EPA's database of all facilities that have had or may be prone to toxic material releases. Source: Environmental Protection Agency.

Updated semi-annually.

**ENVIRONMENTAL FIRST SEARCH
CALIFORNIA DATABASES (DB) AND SOURCES**

SMBRPD / CAL SITES: DB TYPE = STATE (STATE SITES) or OTHER (Other Sites)
Source: The CAL EPA, Depart. Of Toxic Substances Control
Phone: (916) 323-3400

The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as "CalSites," is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.

The SMBRPD displays information in six categories. The categories are:

1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)

Please Note: FirstSearch Reports list the above sites as DB Type (STATE).

5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)

Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).

Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.

CORTESE: DB TYPE = STATE (STATE SITES)

Source: The CAL EPA, Department of Toxic Substances Control
Phone: (916) 445-6532

Pursuant to Government Code Section 65962.5, the Hazardous Waste and Substances Sites List has been compiled by Cal/EPA, Hazardous Materials Data Management Program. The CAL EPA Dept. of Toxic Substances Control compiles information from subsets of the following databases to make up the CORTESE list:

1. The Dept. of Toxic Substances Control; contaminated or potentially contaminated hazardous waste sites listed in the CAL Sites database. Formerly known as ASPIS are included (CALSITES formerly known as ASPIS).
2. The California State Water Resources Control Board; listing of Leaking Underground Storage Tanks are included (LTANK)
3. The California Integrated Waste Management Board; Sanitary Landfills which have evidence of groundwater contamination or known migration of hazardous materials (formerly WB-LF, now AB 3750).

Note: Track Info Services collects each of the above data sets individually and lists them separately in the following First Search categories in order to provide more current and comprehensive information: CALSITES: SPL, LTANK: LUST, WB-LF: SWL

SWIS SOLID WASTE INFORMATION SYSTEM: DB TYPE = SWL

Source: The Integrated Waste Management Board
Phone: (916) 255-2331

The California Integrated Waste Management Board maintains a database on solid waste facilities, operations, and disposal sites throughout the state of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. For more information on individual sites call the number listed above.

Please Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.

WMUDS: DB TYPE = SW (SOLID WASTE RELATED SITES)

Source: The State Water Resources Control Board
Phone: (916) 227-4365

The State Water Resources Control Board maintained the Waste Management Unit Database System (WMUDS). It is no longer updated. It tracked management units for several regulatory programs related to waste management and its potential impact on groundwater. Two of these programs (SWAT & TPCA) are no longer on-going regulatory programs as described below. Chapter 15 (SC15) is still an on-going regulatory program and information is updated periodically but not to the WMUDS database. The WMUDS System contains information from the following agency databases: Facility, Waste Management Unit (WMU), Waste Discharger System (WDS), SWAT, Chapter 15, TPCA, RCRA, Inspections, Violations, and Enforcement's.

Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.

ORANGE COUNTY LANDFILLS: DB TYPE = SW (SOLID WASTE RELATED SITES)

Source: Orange County Health Dept.
Phone: (714) 834-3536

LUSTIS: DB TYPE = LU (LEAKING UNDERGROUND STORAGE TANKS)

Source: The State Water Resources Control Board
Phone: (916) 227-4416

The State Water Resources Control Board maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks. Information for this database is collected from the states regional boards quarterly and integrated with this database.

**SAN DIEGO COUNTY LEAKING TANKS: DB TYPE = LU
(LEAKING UNDERGROUND STORAGE TANKS)**

Source: San Diego County Dept. of Environmental Health
Phone: (619) 338-2242

Maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks within its HE17/58 database. For more information on a specific file call the HazMat Duty Specialist at phone number listed above.

SLIC REGIONS 1 - 9: DB TYPE = SP (SPILLS-90)

Source: The CAL EPA Regional Water Quality Control Boards 1 - 9

The California Regional Water Quality Control Boards maintain report of sites that have records of spills, leaks, investigation, and cleanups. For phone number listings of departments within each region visit their web sites at: <http://www.swrcb.ca.gov/regions.html>

SAN DIEGO COUNTY HE17 PERMITS: DB TYPE = PE (PERMITS)

Source: The San Diego County Depart. Of Environmental Health
Phone: (619) 338-2211

The HE17/58 database tracks establishments issued permits and the status of their permits in relation to compliance with federal, state, and local regulations that the County oversees. It tracks if a site is a hazardous waste generator, TSD, gas station, has underground tanks, violations, or unauthorized releases. For more information on a specific file call the HazMat Duty Specialist at the phone number listed above.

**SAN BERNARDINO COUNTY HAZARDOUS MATERIALS PERMITS: DB TYPE = PE
(PERMITS)**

Source: San Bernardino County Fire Dept.
Phone: (909) 387-3080

Handlers and Generators Permit Information Maintained by the Hazardous Materials Div.

**LA COUNTY SITE MITIGATION COMPLAINT CONTROL LOG: DB TYPE = OT
(OTHER UNIQUE DATABASES)**

Source: The Los Angeles County Hazardous Materials Division
Phone: (323) 890-7806

The County of Los Angeles Public Health Investigation Compliant Control Log

**ORANGE COUNTY INDUSTRIAL SITE CLEANUPS: DB TYPE = OT
(OTHER UNIQUE DATABASES)**

Source: Orange County Environmental Health Agency
Phone: (714) 834-3536

AST ABOVEGROUND STORAGE TANKS: DB TYPE = US (UNDERGROUND STORAGE TANKS)

Source: The State Water Resources Control Board
Phone: (916) 227-4364

The Above Ground Petroleum Storage Act became State Law effective January 1, 1990. In general, the law requires owners or operators of AST's with petroleum products to file a storage statement and pay a fee by July 1, 1990 and every two years thereafter, take specific action to prevent spills, and in certain instances implement a groundwater monitoring program. This law does not apply to that portion of a tank facility associated with the production oil and regulated by the State Division of Oil and Gas of the Dept. of Conservation.

SWEEPS / FIDS STATE REGISTERED UNDERGROUND STORAGE TANKS: DB TYPE = US

Source: CAL EPA Dept of Toxic Substances Control
Phone: (916) 227-4404

Until 1994 the State Water Resources Control Board maintained a database of registered underground storage tanks statewide referred to as the SWEEPS System. The SWEEPS UST information was integrated with the CAL EPA's Facility Index System database (FIDS) which is a master index of information from numerous California agency environmental databases. That was last updated in 1994. Track Info Services included the UST information from the FIDS database in its First Search reports for historical purposes to help its clients identify where tanks may possibly have existed. For more information on specific sites from individual paper files archived at the State Water Resources Control Board call the number listed above.

CUPA DATABASES & SOURCES
(DB TYPE = US (UNDERGROUND STORAGE TANKS))

DEFINITION OF A CUPA: A Certified Unified Program Agency (CUPA) is a local agency that has been certified by the CAL EPA to implement six state environmental programs within the local agency's jurisdiction. These can be a county, city, or JPA (Joint Powers Authority). This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994.

A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A Designated Agency (DA) is an agency that has not been certified by the CUPA but is the responsible local agency that would implement the six unified programs until they are certified.

Please Note: Track Info Services, LLC collects and maintains information regarding Underground Storage Tanks from majority of the CUPAS and Participating Agencies in the State of California. These agencies typically do not maintain nor release such information on a uniform or consistent schedule; therefore, currency of the data may vary. Please look at the details on a specific site with a UST record in the First Search Report to determine the actual currency date of the record as provided by the relevant agency. Numerous efforts are made on a regular basis to obtain updated records.

ALAMEDA COUNTY CUPA'S

- * County of Alameda Department of Environmental Health
- * Cities of Berkeley, Fremont, Hayward, Livermore / Pleasanton, Newark, Oakland, San Leandro, Union

ALPINE COUNTY CUPA

- * Health Department (Only updated by agency annually)

AMADOR COUNTY CUPA

- * County of Amador Environmental Health Department

BUTTE COUNTY CUPA

- * County of Butte Environmental Health Division (Only updated by agency biannually)

CALAVERAS COUNTY CUPA

- * County of Calaveras Environmental Health Department

COLUSA COUNTY CUPA

- * Environmental Health Dept.

CONTRA COSTA COUNTY CUPA

- * Hazardous Materials Program

DEL NORTE COUNTY CUPA (US)

- * Department of Health and Social Services

EL DORADO COUNTY CUPA'S

- * County of El Dorado Environmental Health - Solid Waste Div (Only updated by agency annually)
- * County of El Dorado EMD Tahoe Division (Only updated by agency annually)

FRESNO COUNTY CUPA

- * Haz. Mat and Solid Waste Programs

GLENN COUNTY CUPA

- * Air Pollution Control District

HUMBOLDT COUNTY CUPA (US)

- * Environmental Health Division

IMPERIAL COUNTY CUPA (US)

- * Department of Planning and Building

INYO COUNTY CUPA (US)

- * Environmental Health Department

KERN COUNTY CUPA (US)

- * County of Kern Environmental Health Department
- * City of Bakersfield Fire Department

KINGS COUNTY CUPA (US)

- * Environmental Health Services

LAKE COUNTY CUPA (US)

- * Division of Environmental Health

LASSEN COUNTY CUPA (US)

- * Department of Agriculture

LOS ANGELES COUNTY CUPA'S (US)

- * County of Los Angeles Fire Department
- * County of Los Angeles Environmental Programs Division
- * Cities of Burbank, El Segundo, Glendale, Long Beach/Signal Hill, Los Angeles, Pasadena, Santa Fe Springs, Santa Monica, Torrance, Vernon

MADERA COUNTY CUPA (US)

- * Environmental Health Department

MARIN COUNTY CUPA (US)

- * County of Marin Office of Waste Management
- * City of San Rafael Fire Department

MARIPOSA COUNTY CUPA (US)

- * Health Department

MENDOCINO COUNTY CUPA (US)

- * Environmental Health Department

MERCED COUNTY CUPA (US)

- * Division of Environmental Health

MODOC COUNTY CUPA (US)

- * Department of Agriculture

MONO COUNTY CUPA (US)

- * Health Department

MONTEREY COUNTY CUPA (US)

- * Environmental Health Division

NAPA COUNTY CUPA (US)

- * Hazardous Materials Section

NEVADA COUNTY CUPA (UST)

- * Environmental Health Department

ORANGE COUNTY CUPA'S (US)

- * County of Orange Environmental Health Department
- * Cities of Anaheim, Fullerton, Orange, Santa Ana
- * County of Orange Environmental Health Department

PLACER COUNTY CUPA (US)

- * County of Placer Division of Environmental Health Field Office
- * Tahoe City
- * City of Roseville Roseville Fire Department

PLUMAS COUNTY CUPA (UST)

- * Environmental Health Department

RIVERSIDE COUNTY CUPA (US)

- * Environmental Health Department

SACRAMENTO COUNTY (US)

- * County Environmental Mgmt Dept, Haz. Mat. Div.

SAN BENITO COUNTY CUPA (US)

- * City of Hollister Environmental Service Department

SAN BERNARDINO COUNTY CUPA'S (US)

- * County of San Bernardino Fire Department, Haz. Mat. Div.
- * City of Hesperia Hesperia Fire Prevention Department
- * City of Victorville Victorville Fire Department

SAN DIEGO COUNTY CUPA (US)

- * The San Diego County Dept. of Environmental Health HE 17/58

SAN FRANCISCO COUNTY CUPA (US)

- * Department of Public Health

SAN JOAQUIN COUNTY CUPA (US)

- * Environmental Health Division

SAN LUIS OBISPO COUNTY CUPA'S (US)

- * County of San Luis Obispo Environmental Health Division
- * City of San Luis Obispo City Fire Department

SAN MATEO COUNTY CUPA (US)

- * Environmental Health Department

SANTA BARBARA COUNTY CUPA (US)

- * Co Fire Dept Protective Services Div

SANTA CLARA COUNTY CUPA'S (US)

- * County of Santa Clara Hazardous Materials Compliance Division
- * Santa Clara Co Central Fire Prot. Dist. (Covers Campbell, Cupertino, Los Gatos, & Morgan Hill)
- * Cities of Gilroy, Milpitas, Mountain View, Palo Alto, San Jose Fire, Santa Clara, Sunnyvale

SANTA CRUZ COUNTY CUPA (US)

- * Environmental Health Department

SHASTA COUNTY CUPA (US)

- * Environmental Health Department

SIERRA COUNTY CUPA (US)

- * Health Department

SISKIYOU COUNTY CUPA (US)

- * Environmental Health Department

SONOMA COUNTY CUPA'S (US)

- * County of Sonoma Department Of Environmental Health
- * Cities of Healdsburg / Sebastapol, Petaluma, Santa Rosa

STANISLAUS COUNTY CUPA (US)

- * Dept. of Env. Rsrcs. Haz. Mat. Div.

SUTTER COUNTY CUPA (US)

- * Department of Agriculture

TEHAMA COUNTY CUPA (US)

- * Department of Environmental Health

TRINITY COUNTY CUPA (US)

- * Department of Health

TULARE COUNTY CUPA (US)

- * Environmental Health Department

TUOLUMNE COUNTY CUPA (US)

- * Environmental Health

VENTURA COUNTY CUPA'S (BWT UST'S & CERTIFIED UST'S)

- * County of Ventura Environmental Health Division
- * Cities of Oxnard, Ventura

YOLO COUNTY CUPA (US)

- * Environmental Health Department

YUBA COUNTY CUPA (US)

- * Yuba County of Emergency Services

Environmental FirstSearch
Street Name Report for Streets within 1 Mile(s) of Target Property

TARGET SITE: MR56 BRIGGS & 74 HWY
ROMOLAND CA 92548

JOB: 20507005

Street Name	Dist/Dir	Street Name	Dist/Dir
Alicante Dr	0.73 NE	Kim Rd	0.73 SE
Allen Ave	0.67 SE	La Paloma Dr	0.65 NE
Anna Lynn Ln	0.92 NE	La Puerta Dr	0.67 NE
Areca Palm Dr	0.55 SE	Louisa Ln	0.86 NW
Arenga Palm Dr	0.75 SE	Malaga Rd	0.47 SW
Avenida Madrid	0.74 NE	Malone Ave	0.24 NW
Avenida Ramada	0.67 NE	Mapes Rd	0.96 NE
Avenida Valencia	0.70 NE	Materos Rd	0.22 SW
Avenida Vizcaya	0.73 NE	McKinley Rd	0.73 SW
Avenue Sheri	0.77 NE	McLaughlin Rd	0.53 SE
Bamboo Palm Dr	0.78 SE	Menifee Rd	0.97 SW
Branson Ln	0.92 NE	Opine Ln	0.86 NE
Briggs Rd	0.05 NE	Palmetto Palm Ave	0.80 SE
Burleson Ct	0.96 NE	Paradise Palm Ave	0.59 SE
Butia Palm Dr	0.71 SE	Patelli Way	0.85 NE
Butterfly Palm Dr	0.68 SE	Phoenix Palm Dr	0.77 SE
Cadena Dr	0.58 NW	Pierson Rd	0.87 NE
Calle de Caballos	0.41 NW	Queen Palm Dr	0.97 SE
Capitoca Ln	0.81 NE	Sago Palm Dr	0.88 SE
Carnes Dr	0.99 NE	San Juan Dr	0.93 NE
Chapman Ln	0.94 NE	Seaforthia Palm Dr	0.62 SE
Charina Ln	0.73 NE	Silver Palm Dr	0.89 SE
Citation Ave	0.74 NW	Stone Ln	0.99 NW
Clemente St	0.72 NE	Sultanas Rd	0.54 SE
Cocos Palm Ave	0.84 SE	Todd Dr	0.99 NE
Cumming Ave	0.72 NW	Triple Crown Rd	0.67 NE
El Paraiso Dr	0.48 NE	United States Highwa	0.05 SE
Emperor Rd	0.28 NE	Varela Ln	0.22 NW
Fountain Palm Dr	0.68 SE	Varela Ln	0.70 NE
Highland Palms Dr	0.82 SE	Watson Rd	0.47 NE
Ivory Palm Dr	0.92 SE	Western View Dr	0.94 NE
Kentia Palm Dr	0.59 SE		

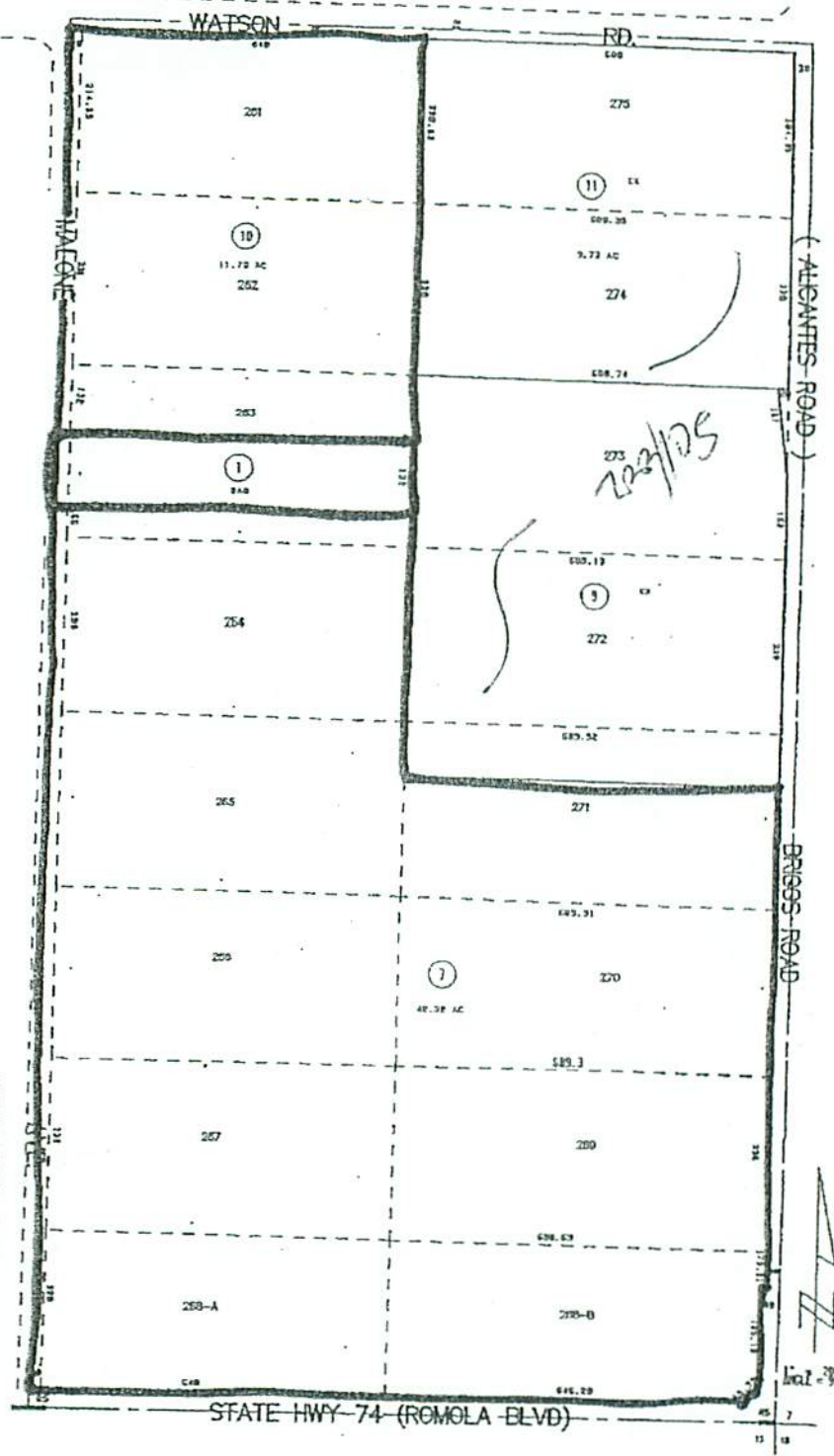
12.2 Plat Map

THIS MAP WAS PREPARED FOR THE ASSASSIN'S PROPERTY UNIT, AND IS NOT TO BE USED FOR THE PURPOSES OF THE ASSASSIN'S PROPERTY UNIT, NOR FOR ANY OTHER PURPOSES. THE ASSASSIN'S PROPERTY UNIT IS NOT TO BE USED FOR ANY OTHER PURPOSES.

POR. S 12 T. 5S. R. 3W

T.R.A. 089-004

327-32



43

ASSESSOR'S MAP 86437 PG. 32
Riverside County, Calif.

86437

JUL 0 9 1999

31

MR. 56

200 1999

NO.	DATE	TIME	DATE
1	1/1/99	10:00	1/1/99
2	1/1/99	10:00	1/1/99
3	1/1/99	10:00	1/1/99
4	1/1/99	10:00	1/1/99
5	1/1/99	10:00	1/1/99
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7	1/1/99	10:00	1/1/99
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331
30

459
02

457
22

457
32

457
11

44

12.3 Vicinity Map(s)

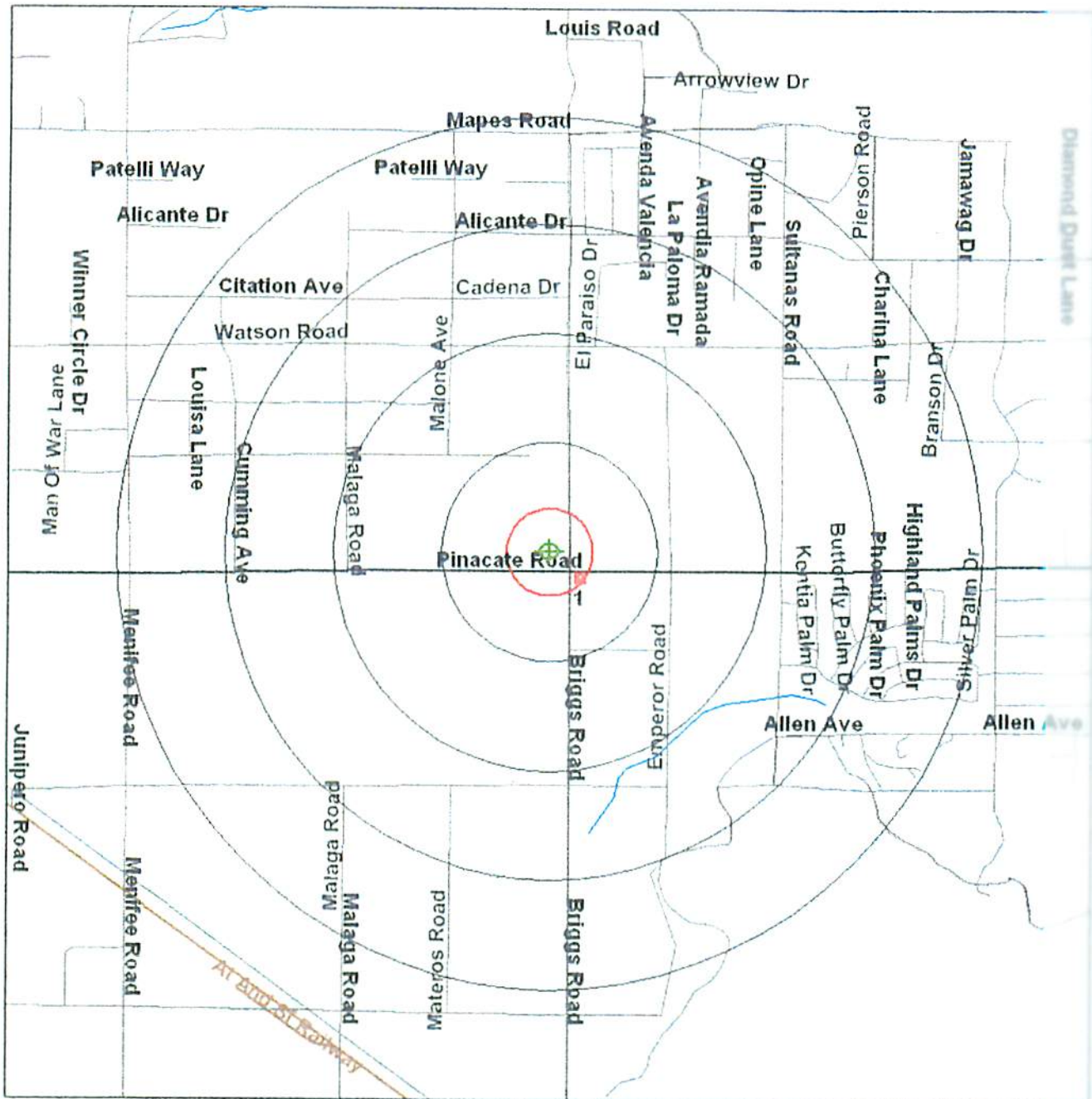


Environmental FirstSearch

1 Mile Radius
Single Map:



MR56 BRIGGS & 74 HWY, ROMOLAND CA 92548



Source: U.S. Census TIGER Files

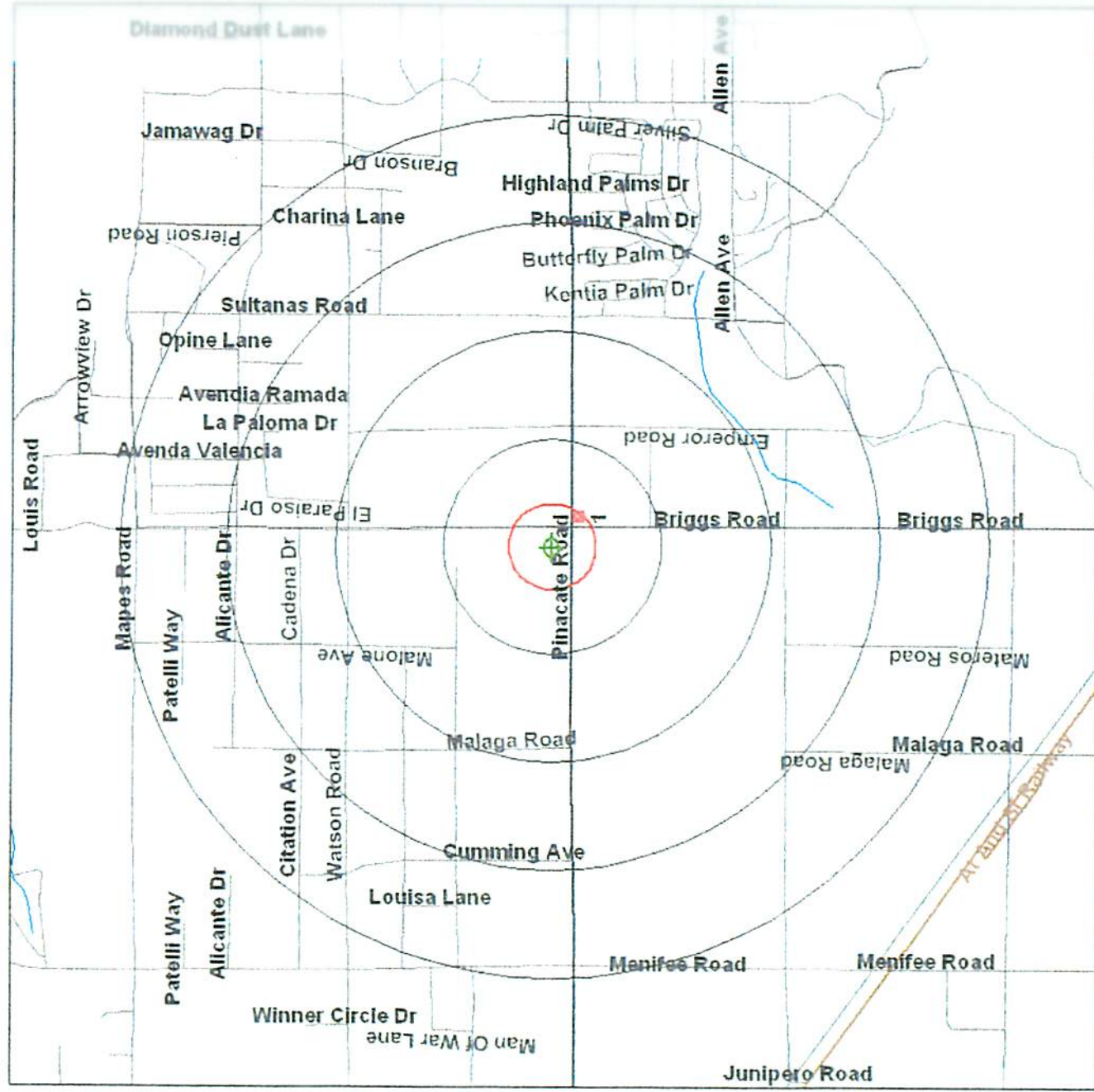
- Target Site (Latitude: 33.743765 Longitude: -117.137077)
- Identified Site, Multiple Sites, Receptor
- NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste
- Railroads
- Black Rings Represent 1.4 Mile Radii; Red Ring Represents 500 ft. Radius



1 Mile Radius

ASTM: NPL, RCRA COR, STATE

MR56 BRIGGS & 74 HWY, ROMOLAND CA 92548



Source: U.S. Census TIGER Files

Target Site (Latitude: 33.743765 Longitude: -117.137077)

Identified Site, Multiple Sites, Receptor

NPI, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste

Railroads

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius



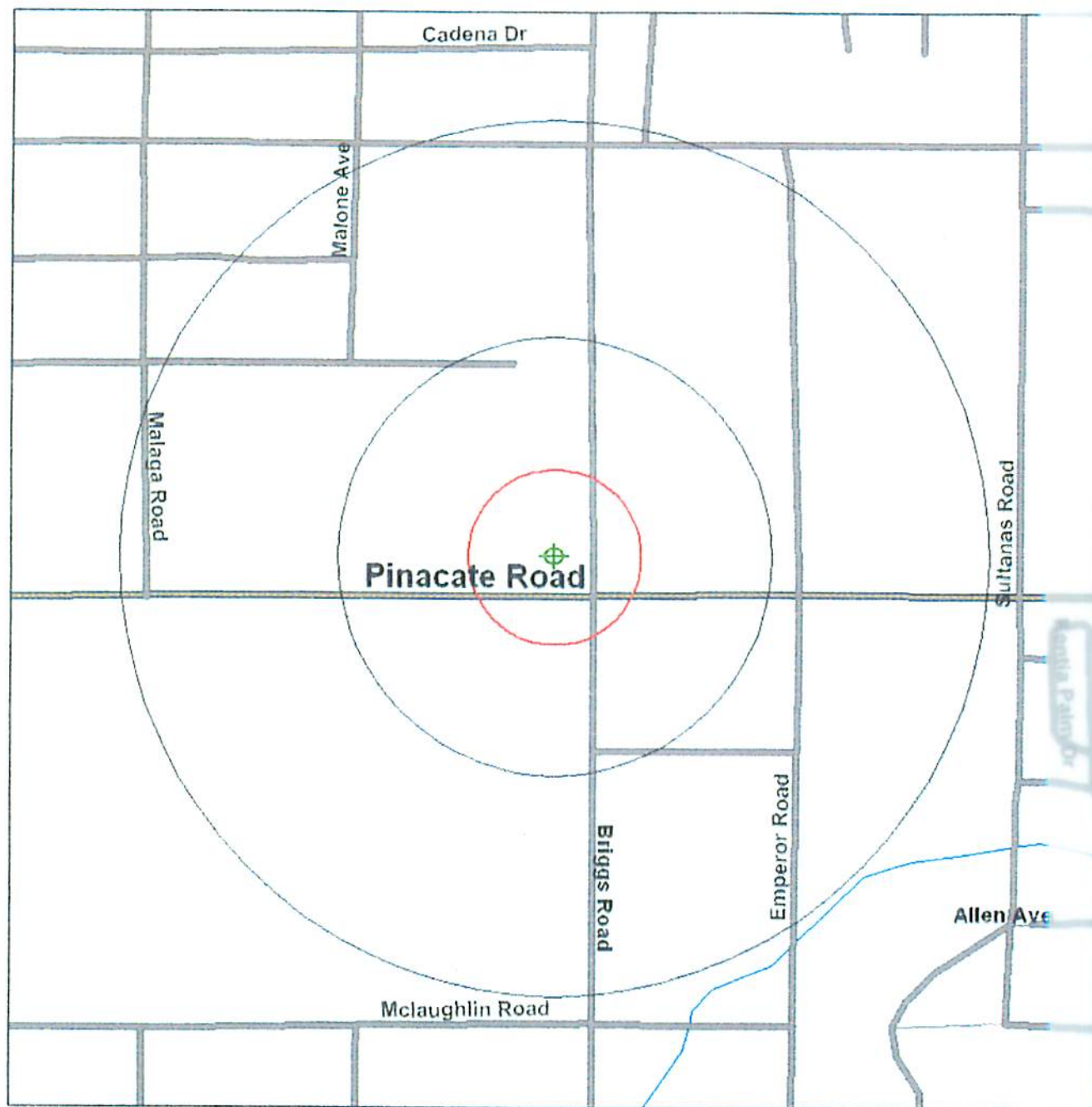
Environmental FirstSearch

.5 Mile Radius

ASTM: CERCLIS, RCRATSD, LUST, SWL

Environment
FIRSTSEARCH

MR56 BRIGGS & 74 HWY, ROMOLAND CA 92548



Source: U.S. Census TIGER Files

Target Site (Latitude: 33.743765 Longitude: -117.137077) 
Identified Site, Multiple Sites, Receptor   
NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste 
Railroads 
Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

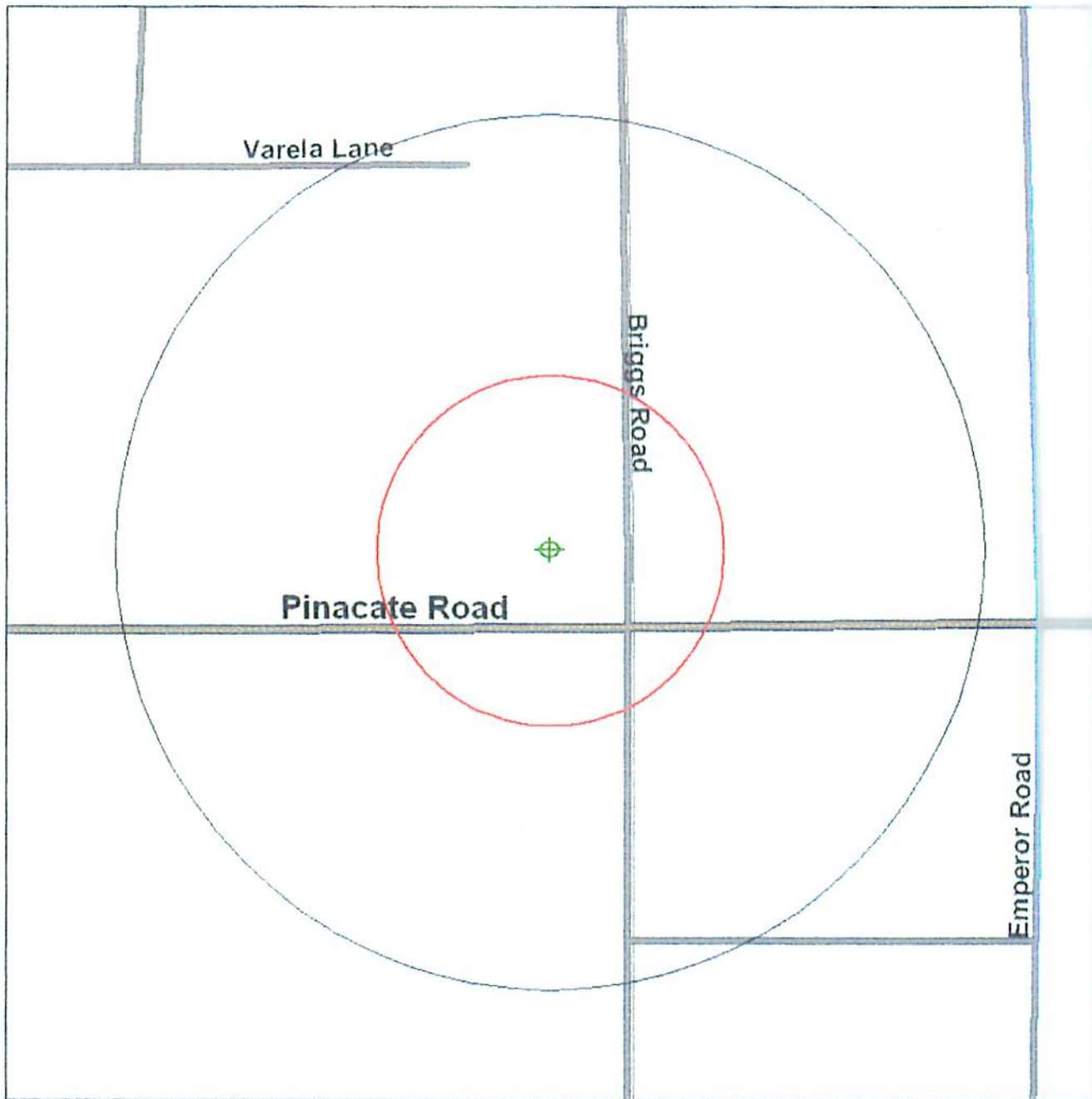


Environmental FirstSearch

.25 Mile Radius
ASTM: RCRAGEN, UST, OTHER



MR56 BRIGGS & 74 HWY, ROMOLAND CA 92548



Source: U.S. Census TIGER Files

Target Site (Latitude: 33.743765 Longitude: -117.137077) 
Identified Site, Multiple Sites, Receptor   
NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste 
Railroads 
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius



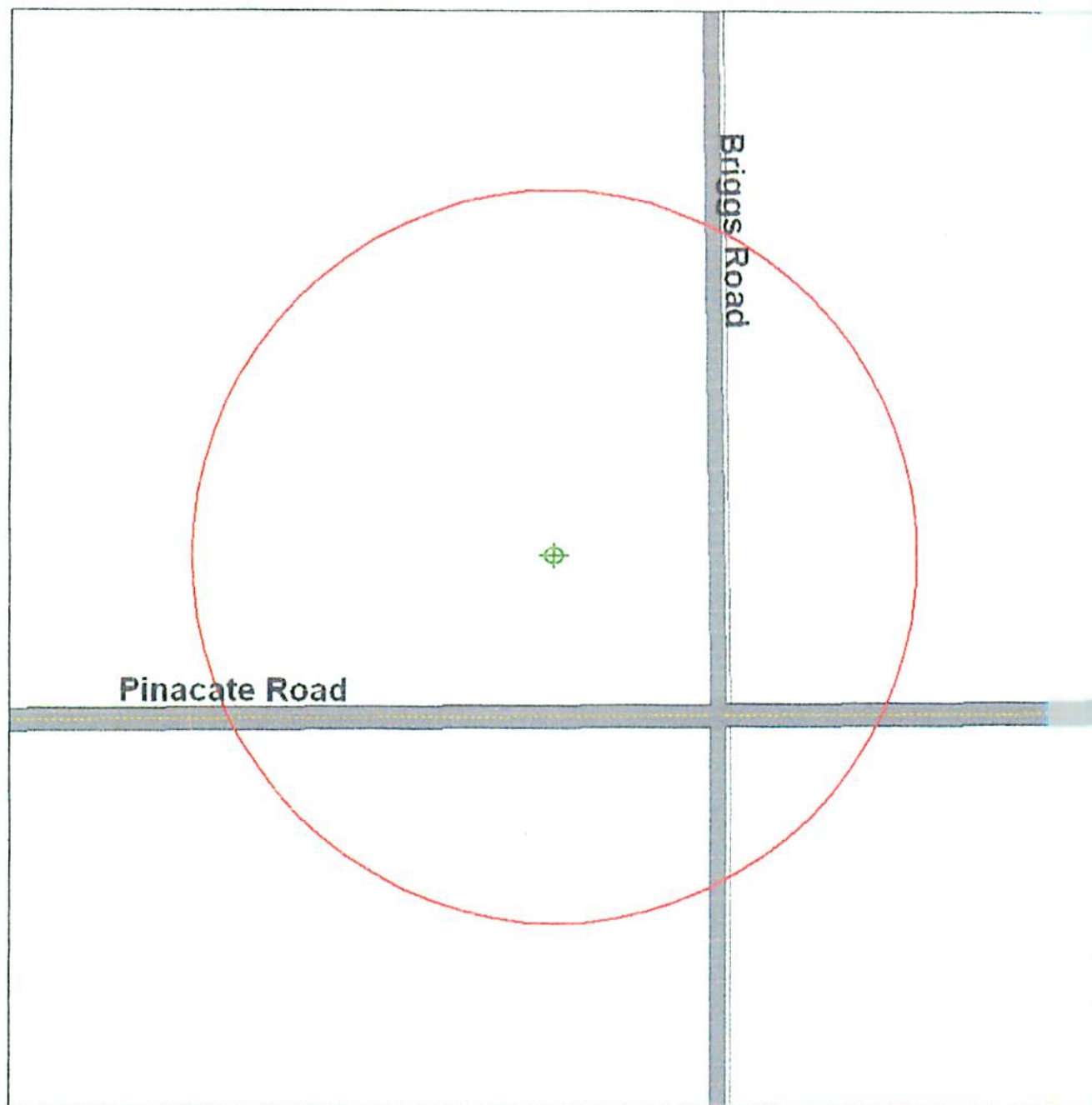
Environmental FirstSearch

.12 Mile Radius

ASTM: NFRAP, SPILLS90, ERNS, RCRANLR, PERMITS

Environmental
FIRSTSEARCH

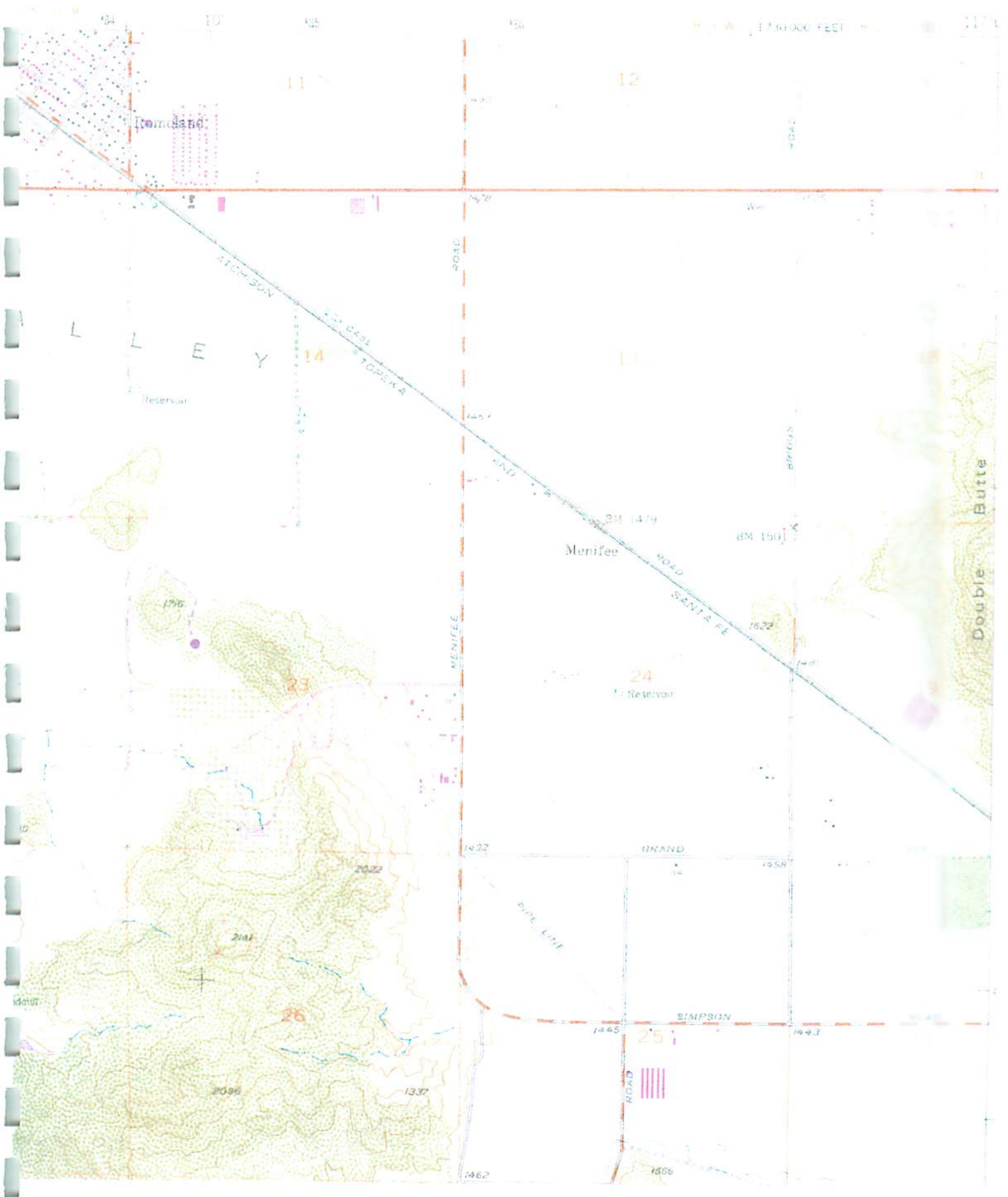
MR56 BRIGGS & 74 HWY, ROMOLAND CA 92548



Source: U.S. Census TIGER Files

Target Site (Latitude: 33.743765 Longitude: -117.137077) 
Identified Site, Multiple Sites, Receptor   
NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste 
Railroads 
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

ROMOLAND QUADRANGLE
CALIFORNIA-RIVERSIDE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



12.4 Additional Site Photographs

Subject Site: Northwest Corner of Briggs & Hwy 74 Romoland, CA



East Side of Subject Property

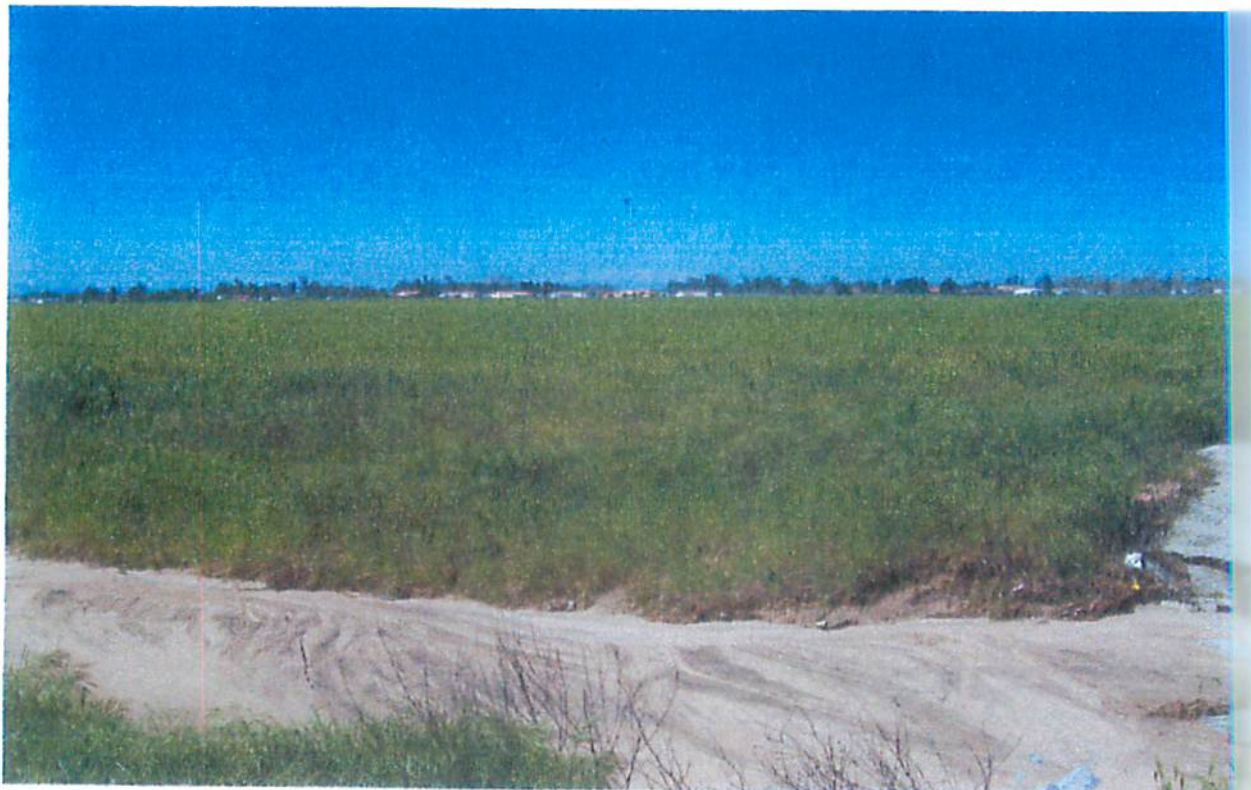


Water Erosion in South/East Portion of Subject Property

Subject Site: Northwest Corner of Briggs & Hwy 74 Romoland, CA



View from South/West Portion of Subject Property



View from South/East Corner of Subject Property

Subject Site: Northwest Corner of Briggs & Hwy 74 Romoland, CA



North/West Portion of Subject Property



North Side of Subject Property

COUNTY OF RIVERSIDE

ENVIRONMENTAL ASSESSMENT FORM: INITIAL STUDY

Environmental Assessment (E.A.) Number: 40275

Project Case Type (s) and Number(s): Specific Plan No. 260, Amendment No. 2; Change of Zone No. 07195; Tentative Tract Map No. 34118; Tentative Tract Map No. 34600

Lead Agency Name: County of Riverside Planning Department

Address: 4080 Lemon Street, 9th Floor, Riverside, CA, 92501

Contact Person: Russell Brady

Telephone Number: (951) 955-1888

Applicant's Name: MR-56, LLC & MR-27, LLC

Applicant's Address: 445 South "D" Street, Perris, CA 92570

I. PROJECT INFORMATION

A. Project Description:

Specific Plan No. 260, Amendment No. 2 (SP 260(A2)): To amend the previously approved Menifee North Specific Plan 260, Amendment 1 (SP 260(A1)) to change land use designations within the Specific Plan boundary. Generally, SP 260(A2) proposes land use changes in four areas of the Specific Plan, as described below:

(see Figure A, *Approved Specific Plan Land Use Plan – Areas of Change*; Figure B, *Proposed Specific Plan Amendment No. 2 Land Use Plan*; and Table 1, *Land Use Summary of Changes*)

- 1) Area of Change 1: Approximately 76.4 acres of land designated as Industrial, located west of Dawson Road in Planning Area 2, is proposed to be removed from the Specific Plan. The acreage of Planning Area 2 would be reduced from 121.1 acres to 44.7 acres.
- 2) Area of Change 2: Planning Area 7 is proposed to be divided into Planning Areas 7A and 7B and be redesignated from Industrial to Medium High Residential (7A) and High Density Residential (7B). Also, Planning Area 8 (Commercial) would be reduced in size from 6.3 acres to 3.3 acres. This Area is also referred to as MR-27.
- 3) Area of Change 3: Planning Area 10 is proposed to be redesignated from Low Density Residential to Community Park and expanded to include an additional 5.1 acres previously outside the Specific Plan boundary. This 5.1-acre addition serves as an utility easement and would be improved as part of Planning Area 10, the Community Park.
- 4) Area of Change 4: Planning Area 48 is proposed to be combined with Planning Area 20 and reduced in acreage into one 9.5-acre Community Park/Center. Planning Area 23 (Commercial) would be divided into Planning Area 23A (Garden Courts) and Planning Area 23B (Commercial), and increased in size to accommodate the size reduction in Planning Area 20. This area is also referred to as MR-56.

As a result of the above listed modifications and other minor changes, the total Specific Plan acreage would be reduced from 1,636.2 acres to 1,445.1 acres. Residential areas would increase from 585.3 acres and 2,390 dwelling units to 623.1 acres and 2,624 dwelling units. Non-residential acreage would decrease from 1,050.9 acres to 822.0 acres, mostly reflecting the removal of industrial land from the Specific Plan boundary in Planning Area 10. The analysis in this Environmental Assessment is focused on the four areas of change as noted above. Other modifications to the Specific Plan are corrections based on updated survey information and to

provide compatibility with the Circulation Element of the County's General Plan and are not subject to environmental review.

Change of Zone No. 07195 (CZ 07195): To change the Specific Plan zoning designations to provide consistency with the land use changes proposed by SP 260(A2). The industrial area being removed from the Specific Plan boundary (portion of Planning Area 2) would be changed in zone from SP 260 to I-P (Industrial Park). The area being added to the Specific Plan boundary (portion of Planning Area 10) would be redesignated from A-1-1 to SP 260.

Tentative Tract Map No. 34118 (TR 34118): Proposes to subdivide Planning Areas 7A and 7B (27.58 acres) for the development of 84 "garden court" residential units and 85 single-family residential lots with minimum lot sizes of 4,000 square feet. TR 34118 also includes a private recreational center. Property along the site's eastern boundary would be dedicated to the County for right-of-way improvements to Palomar Road. (See Figure C, *Tentative Tract 34118*.)

Tentative Tract Map No. 34600 (TR 34600): Proposes to subdivide 17.5 acres of Planning Area 23A for the development of 162 "garden court" residential units and a private recreation center. Property along the site's eastern boundary would be dedicated to the County for right-of-way improvements to Briggs Road and property along the site's western boundary would be dedicated to the County for right-of-way improvements to Malone Avenue. (See Figure D, *Tentative Tract 34600*.)

B. Type of Project: Site Specific ☒; Countywide ☐; Community ☐; Policy ☐.

C. Total Project Area: 132.2 Acres

Residential Acres: 36.4	Lots: N/A	Units: 331	Projected Number of Residents: 996
Commercial Acres: 27.0	Lots: N/A	Sq. Ft. of Bldg. Area: N/A	Est. No. of Employees: Unknown
Industrial Acres: 44.7	Lots: N/A	Sq. Ft. of Bldg. Area: N/A	Est. No. of Employees: Unknown
Other: Community Park/Center: 9.5 acres; and Community Park: 14.6 acres			

Assessor's Parcel No(s): 327-320-001, 007, 009 and 010; 329-110-024, 019 and 042; 329-090-019, 020, 021 and 22; 331-140-018, 022, 031, 035, 036 and 037.

D. Street References: North and south of Highway 74, south of Watson Road, east of Dawson Road, and west of Leon Road.

E. Section, Township & Range Description or reference/attach a Legal Description: See the attached legal description.

F. Brief description of the existing environmental setting of the Project site and its surroundings: The project site is located in an unincorporated portion of southwestern Riverside County, California. The property is located due southeast of the City of Perris. The project site is relatively flat with elevations ranging from approximately 1,550 feet above mean sea level (MSL) to approximately 1,450 feet above MSL.

II. APPLICABLE GENERAL PLAN LAND USE POLICIES AND ZONING

A. General Plan Designation(s): High Industrial, Commercial Retail, Open Space-Recreation, Medium Density Residential, Public Facilities, Very Low Density Residential, and Business Park.

B. Land Use Planning Area Information:

1. **Subarea, if any:** Harvest Valley/Winchester Area Plan
2. **Policy Area, if any:** Highway 79 Policy Area, March Air Reserve Base Policy Area

C. Area Plan Land Use Allocation Map Information

1. **Area Plan, if any:** Harvest Valley/Winchester Area Plan

D. Area Plan Land Use Designation, if any: High Industrial, Commercial Retail, Open Space-Recreation, Medium Density Residential, Public Facilities, Very Low Density Residential, and Business Park.

E. Adopted Specific Plan Information

1. **Name and Number of Specific Plan, if any:** Menifee North 260
2. **Specific Plan Planning Area, and Policies, if any:** Planning Areas 2, 7, 8, 10, 20, 23, and 48 (refer to the Specific Plan No. 260(A2) document for applicable policies).

Existing Zoning: SP 260 and A-1-1.

F. Proposed Zoning, if any: SP 260 and I-P

G. Adjacent and Surrounding Zoning: SP 260, A-1-1, R-A, R-T

III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below (x) would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

<input checked="" type="checkbox"/> Aesthetics	<input checked="" type="checkbox"/> Hazards & Hazardous Materials	<input checked="" type="checkbox"/> Public Services
<input checked="" type="checkbox"/> Agriculture Resources	<input checked="" type="checkbox"/> Hydrology/Water Quality	<input type="checkbox"/> Recreation
<input checked="" type="checkbox"/> Air Quality	<input checked="" type="checkbox"/> Land Use/Planning	<input checked="" type="checkbox"/> Transportation/Traffic
<input type="checkbox"/> Biological Resources	<input type="checkbox"/> Mineral Resources	<input checked="" type="checkbox"/> Utilities/Service Systems
<input checked="" type="checkbox"/> Cultural Resources	<input checked="" type="checkbox"/> Noise	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Geology/Soils	<input type="checkbox"/> Population/Housing	<input type="checkbox"/> Mandatory Findings of Significance

IV. DETERMINATION

On the basis of this initial evaluation:

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS NOT PREPARED

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

☒ I find that although the proposed Project could have a significant effect on the environment, there

will not be a significant effect in this case because revisions in the Project, described in this document, have been made or agreed to by the Project proponent. **A MITIGATED NEGATIVE DECLARATION** will be prepared.

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

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS PREPARED

☐ I find that although the proposed Project could have a significant effect on the environment **NOTHING FURTHER IS REQUIRED** because all potentially significant effects (a) have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed Project.

☐ I find that although all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards, some changes or additions are necessary but none of the conditions described in California Code of Regulations, Section 15162 exist. An **ADDENDUM** to a previously-certified EIR or Negative Declaration has been prepared and will be considered by the approving body or bodies.

☐ I find that at least one of the conditions described in California Code of Regulations, Section 15162 exist, but I further find that only minor additions or changes are necessary to make the previous EIR adequately apply to the Project in the changed situation; therefore a **SUPPLEMENT TO THE ENVIRONMENTAL IMPACT REPORT** is required that need only contain the information necessary to make the previous EIR adequate for the Project as revised.

☐ I find that at least one of the following conditions described in California Code of Regulations, Section 15162, exist and a **SUBSEQUENT ENVIRONMENTAL IMPACT REPORT** is required: (1) Substantial changes are proposed in the Project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; (2) Substantial changes have occurred with respect to the circumstances under which the Project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any the following: (A) The Project will have one or more significant effects not discussed in the previous EIR or negative declaration; (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR or negative declaration; (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the Project, but the Project proponents decline to adopt the mitigation measures or alternatives; or, (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR or negative declaration would substantially reduce one or more significant effects of the Project on the environment, but the Project proponents decline to adopt the mitigation measures or alternatives.

Signature

Date

Russell Brady

Printed Name

For Robert C. Johnson, Planning Director

V. ENVIRONMENTAL ISSUES ASSESSMENT

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000-21178.1), this Initial Study has been prepared to analyze the proposed Project to determine any potential significant impacts upon the environment that would result from construction and implementation of the Project. In accordance with California Code of Regulations, Section 15063, this Initial Study is a preliminary analysis prepared by the Lead Agency, the County of Riverside, in consultation with other jurisdictional agencies, to determine whether a Negative Declaration, Mitigated Negative Declaration, or an Environmental Impact Report is required for the proposed Project. The purpose of this Initial Study is to inform the decision-makers, affected agencies, and the public of potential environmental impacts associated with the implementation of the proposed Project.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS Would the Project				
1. Scenic Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a) Have a substantial effect upon a scenic highway corridor within which it is located?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Source: Specific Plan 260(A1) and EIR 329; County GIS database; County General Plan Figure C-9 "Scenic Highways"; Project Application Materials; County General Plan Program EIR Section 4.4 "Aesthetics/Visual Resources"; Site Field Evaluation.

Findings of Fact:

- a) State Eligible Scenic Highway 74 borders a portion of the Specific Plan No. 260 project area, but Hwy. 79 does not border any portion of the Specific Plan area proposed to be affected by Specific Plan Amendment No. 2, TR 34118 or TR 34600. County eligible Interstate 215 intersects with Highway 74 approximately 1.5 miles northwest of the property. Because neither the two Tentative Tract Maps (34118 and 34600) nor any area of Specific Plan No. 260 subject to Amendment No. 2 abuts these scenic corridors, the Project would have a less than significant impact to scenic highways.
- b) The land use changes proposed by SP 260(A2) and the development proposed by TR 34188 and TR 34600 would not damage scenic trees, rock outcroppings or unique landmark features because no such resources are present on the site. Landscaping and architecture elements proposed are consistent with the Meniffee North Specific Plan Design Guidelines and Development Standards, adherence to which assures that development will be aesthetically pleasing. Residential development proposed by TR 34188 and TR 34600 would not obstruct any prominent scenic vista or public view. The site is surrounded by other developed properties or properties planned for development. The Project would not public block views of Double Butte Park from Hwy. 79 or other public viewing areas.

Mitigation: Mitigation is not required.

Monitoring: Monitoring is not required.

2. Mt. Palomar Observatory

☐ ☒ ☐ ☐

Interfere with the night time use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?

Source: County Ordinance No. 655; County GIS database; County General Plan Program EIR Section 4.4 "Aesthetics/Visual Resources"

Findings of Fact: The proposed project site is located within Zone B of the Mt. Palomar Nighttime Lighting Policy Area. Development in the area will be required to adhere to the lighting requirements (i.e. lighting time limits, shielding, type of light bulbs, etc.) specified in the County Ordinance No. 655 for Zone B standards that are intended to limit light leakage and spillage that may interfere with the operation of the Mt. Palomar Observatory.

Mitigation: The Project shall comply with the requirements of Riverside County Ordinance No. 655 for Zone B, which specifies standards for outdoor lighting and requires the submission of plans and evidence of compliance with Ordinance No. 655. No additional mitigation is required.

Monitoring: Riverside County Planning Department will ensure compliance with Ordinance No. 655.

3. Other Lighting Issues

☐ ☐ ☒ ☐

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

b) Expose residential property to unacceptable light levels?

☐ ☐ ☒ ☐

Source: Specific Plan 260(A1) and EIR 329; Project Application Materials; County General Plan Program EIR Section 4.4 "Aesthetics/Visual Resources"

Findings of Fact:

a) The land use changes proposed by SP 260(A2) would not result in the addition of any artificial lighting sources beyond those anticipated by the adopted Menifee North Specific Plan. Artificial lighting sources would be introduced on Planning Areas 7A, 7B and 23A with the development of TR 34188 and TR 34600. Lighting would be typical of a suburban community and would not be regarded as a substantial source of light. No reflective or glare-producing building materials are proposed. Therefore, the proposed project will not create a new source of substantial light or glare and will not adversely affect day or nighttime views in the area.

b) Lighting would not expose residential property to light levels beyond that anticipated by the adopted Menifee North Specific Plan. The County requires that street lighting be low intensity only as needed for safety and security purposes.

Mitigation: Mitigation is not required.

Monitoring: Monitoring is not required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AGRICULTURE RESOURCES Would the Project				
4. Agriculture	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing agricultural use, or a Williamson Act (agricultural preserve) contract (Riv. Co. Agricultural Land Conservation Contract Maps)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625 "Right-to-Farm")?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Source: California Resources Agency FMMP; County General Plan Program EIR; County General Plan Figure OS-2 "Agricultural Resources"; County GIS database; Project Application Materials; County General Plan Program EIR Section 4.2 "Land Use/Agricultural Resources"; County Ordinance No. 625.

Findings of Fact:

- a) The project site is located within an area mapped as Prime Farmland and Locally Important Farmland; however, the site is not designated for long-term agricultural use by Riverside County's General Plan, Harvest Valley/Winchester Area Plan or approved Specific Plan No. 260. All of these long-range planning documents designate the site for development. Implementation of SP 260(A2), TR 34188 and TR 34600 would be consistent with the County's General Plan and would not result in farmland conversion impacts beyond the level of impact previously documented in the County's General Plan EIR (SCH No. 2002051143).
- b) The proposed Project site is not located within an Agricultural Preserve and is not under a Williamson Act contract.
- c) Planning Area 7B (portion of TR 34118) and Planning Area 23A (TR 34600) fall within 300 feet of parcels with agricultural zoning (A-1-1); consequently, there is a potential for significant impact. The Project is therefore required to comply with the County's "Right to-Farm" Ordinance, No. 625.1. The ordinance is intended to provide a means of giving notice to prospective homebuyers of new homes in newly built subdivisions and recently subdivided parcels that they are moving into an agricultural area and that a farm that has been in operation legally for at least three years. The farm and its normal agricultural operations shall not become a nuisance because residential uses have entered the area and are offended by the odors, dust, etc. The ordinance applies to any tract or parcel map located within 300 feet of property zoned primarily for agricultural use (A-1, A-2, A-P, and A-D zones).
- d) SP 260(A2) would change land use designations internal to the approved Meniffee North Specific Plan area. The County General Plan, Harvest Valley/Winchester Area Plan and approved Specific Plan No. 260 designates the site for development and do not plan for long-term agricultural use of

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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the area. No adjacent properties are planned for long-term agricultural use. Therefore, because adjacent properties are not designated as Farmland, development of the site as proposed would not result in conversion of Farmlands to non-agricultural use.

Mitigation: The title company, in preparing the developer's application for State Department of Real Estate (DRE) report on the subdivision, must include the "right-to-farm" statement in accord with County Ordinance No. 625.1. Developers must show the subdivision report to prospective home and/or lot buyers, obtain their signature that they have read it, and keep the signature on file for three years.

Monitoring: Riverside County's building permit process will monitor compliance with County Ordinance No. 625.1.

AIR QUALITY Would the Project

5. Air Quality Impacts

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

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b) Violate any air quality standard or contribute substantially to an existing or Projected air quality violation?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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c) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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d) Expose sensitive receptors which are located within 1 mile of the Project site to Project substantial point source emissions?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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e) Involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) Create objectionable odors affecting a substantial number of people?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Source: SCAQMD CEQA Air Quality Handbook Table 6-2; Project Application Materials; General Plan Program EIR Section 4.5, "Air Quality;" Specific Plan 260(A1) and EIR 329

Findings of Fact:

a) The project site is located in the South Coast Air Basin (SCAB). The South Coast Air Quality Management District (SCAQMD) Governing Board adopted its most recent Air Quality Management Plan (AQMP) for the SCAB on August 1, 2003. The AQMP is a plan for the regional improvement of air quality. As part of adoption of the County's General Plan in 2003, the General Plan EIR (SCH No. 2002051143) analyzed the General Plan growth projections for consistency with the AQMP and concluded that the General Plan is consistent with the SCAQMD's AQMP. Projects consistent with the County General Plan would therefore be consistent with the SCAQMD's AQMP. The proposed Project is consistent with the Community Development Foundation Component land use designations applied to the site by the County's General Plan and Harvest Valley/Winchester Area Plan, and as such would not increase the severity of air

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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quality violations projected by the SCAQMD's AQMP nor would it exceed development assumptions of the AQMP. Therefore, the Project would not conflict with or obstruct implementation of the AQMP.

- b & c) Implementation of SP 260(A2), TR 34118 and TR 34600 would impact air quality in the short-term during construction, and in the long-term through operation. Construction activities associated with the Project would result in emissions of carbon monoxide (CO), volatile organic gases (VOC), nitrogen dioxide (NOx), particulate sulfate (SOx) and particulate matter (PM10). Construction emissions are expected from the use of construction equipment including heavy diesel trucks, and fugitive dust associated with site preparation and equipment travel on paved and unpaved roads. Construction emissions would occur in close proximity to the disturbance area, but some spill over into the surrounding community may occur.

Operational impacts associated with the Project would be expected to result in emissions of VOC, NOx, CO, PM10 and SOx. Operational emissions would result from vehicle emissions, fugitive dust associated with vehicle travel, combustion emissions associated with natural gas use, emission related to electricity generation, and landscape equipment maintenance emissions. In the long term, emissions of VOC, NOx, CO, and PM10 could exceed SCAQMD significance thresholds (in pounds per day), requiring mitigation. Emissions would not occur above levels previously documented in the County's General Plan EIR No. 441 and the Menifee North Specific Plan EIR No. 329.

The SCAB is in a non-attainment status for federal ozone standards, federal carbon monoxide standards, and state and federal particulate matter standards. Any development in the SCAB, including the proposed Project, would cumulatively contribute to these pollutant violations. The Project is consistent with the County's General Plan and Harvest Valley/Winchester Area Plan land use designations. The Riverside County General Plan (2003) is a policy document that reflects the County's vision for the future of Riverside County. The General Plan is organized into eight separate elements, including an Air Quality Element. The purpose of the Air Quality Element is to protect County residents from the harmful effects of poor air quality.

The Air Quality Element identifies goals, policies, and programs that are meant to balance actions regarding land use, circulation, and other issues with their potential effects on air quality. The Air Quality Element, in conjunction with local and regional air quality planning efforts, addresses ambient air quality standards set forth by the Federal Environmental Protection Agency (EPA) and the California Air Resources Board (CARB). Potential air quality impacts resulting from the proposed Project would not exceed emissions projected by the County's Air Quality Element. The County is charged with implementing the policies in its General Plan Air Quality Element, which are focused on reducing concentrations of criteria pollutants, reducing negative impacts to sensitive receptors, reducing mobile and stationary pollutant sources, increasing energy conservation and efficiency, improving the jobs to housing balance, and facilitating multi-jurisdictional coordination for the improvement of air quality. With adherence to the County's General Plan, cumulative air quality impacts would be reduced to a level below significance.

- d) Sensitive receptors located within one (1) mile of the Project site include residential homes. Because SP 260(A2), TR 34118 and TR 34600 would not emit stationary sources of pollution, there would be no potential to impact sensitive receptors in the long-term. In the short-term, temporary emissions from stationary construction equipment during Project development would have the potential to impact sensitive receptors. Air pollutants would be emitted by construction

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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equipment and fugitive dust would be generated during grading and earthmoving, resulting in a short-term impact to nearby sensitive receptors and requiring mitigation.

- e) Sensitive receptors in the SP 260(A2), TR 34118 and TR 34600 project boundary would include residential homes. No known point source emitters are known to be located within one mile of the site.
- f) SP 260(A2), TR 34118 and TR 34600 would not create objectionable odors. No odor impacts would occur from implementation of the Project.

Mitigation:

During grading and construction activities, the Project is required to comply with the requirements of SCAQMD Rule 403, Fugitive Dust, as amended on June 3, 2005. Applicable Rule 403 measures include, but are not limited to, the following:

- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or shall maintain at least two feet of freeboard (i.e. minimum vertical distance between top of the load and the top of the trailer) in accordance with the requirement of California Vehicle Code Section 23114.
- Nontoxic soil stabilizers shall be applied to all inactive construction areas (previously graded areas inactive for ten days or more) according to manufacturers' specifications.
- Locations where grading is to occur shall be thoroughly watered prior to earthmoving. Areas under active grading shall be watered at least twice daily.
- The applicant shall pave construction access roads to at least 100 feet onto the site from main roads.
- The applicant shall post appropriate signage on all unpaved roads indicating that traffic speeds shall be reduced to 15 mph or less.

In accordance with SCAQMD Rules 431.1 and 431.2, ultra-low sulfur fuel diesel shall be used for stationary construction equipment.

Structures shall be constructed to comply with California Energy Commission Title 24, Energy Efficiency Standards for Residential and Non-Residential Construction.

During grading and construction activities, the Project shall comply with the following dust measures as specified in the SCAQMD CEQA Air Quality Handbook:

- Soil disturbing activities, including excavating and grading operations, shall be suspended when wind speeds exceed 25 mph (measured as instantaneous gusts) and make dust control difficult.
- Disturbed areas shall be re-vegetated as quickly as possible.
- All streets shall be swept once a day if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water).

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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- "Spill-over" effects shall be minimized by washing dirt from vehicles or installing wheel washers where vehicles enter and exit unpaved roads onto paved roads.

The construction contractor shall select the construction equipment used on site based on low emission factors and high energy efficiency.

Prior to construction commencement and throughout Project buildout, on-site equipment emissions shall be controlled through regularly scheduled engine maintenance and low-emissions tune-ups. Construction grading plans shall include a statement that all construction equipment shall be tuned and maintained in accordance with manufactures specifications.

Electric or diesel powered construction equipment shall be used in lieu of gasoline powered engines wherever feasible.

Construction grading plans shall include a statement that work crews shall shut off equipment when not in use.

The construction contractor shall time the construction activities so as not to interfere with peak hour traffic and minimize obstruction of through traffic lanes adjacent to the site. If necessary, a flag person shall be retained by the construction supervisor to maintain safety adjacent to existing roadways.

The construction contractor shall support and encourage ridesharing and transit incentives for the construction crew.

During clearing, grading, earthmoving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.

During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this includes wetting down such areas in the late morning, after work is completed for the day, and whenever wind exceeds 15 mph.

Immediately after clearing, grading, earthmoving or excavation is completed, the entire area of disturbed soil shall be treated until the area is paved, landscaped or otherwise developed to reduce dust generation.

Soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation.

Trucks transporting soil, sand, cut or fill materials and/or construction debris to or from the site shall be tarped from point of origin.

Construction contractors shall be required to use low VOC paint products (100 grams per liter of VOC).

Construction contractors shall be required to have 90-day low-NOX tune-ups for off-road diesel trucks.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Monitoring: Monitoring would be conducted by the SCAQMD, Riverside County Department of Building and Safety, and the Construction Supervisor.

R

BIOLOGICAL RESOURCES Would the Project

6. Wildlife & Vegetation

a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?

☐ ☒ ☐ ☐

b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?

☐ ☐ ☒ ☐

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

☐ ☒ ☐ ☐

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

☐ ☐ ☐ ☒

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

☐ ☐ ☐ ☒

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

☐ ☐ ☐ ☒

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

☐ ☐ ☐ ☒

Source: Specific Plan 260(A1) and EIR 329; GIS Database; County General Plan Figure OS-4 "Western Riverside County Vegetation"; MSHCP, County General Plan Program EIR Section 4.6 "Biological Resources"; "Burrowing Owl Habitat Assessment Tentative Tract Map 34118" Principe and Associates; "MSHCP Consistency Analysis and Burrowing Owl Habitat Assessment for Tentative Tract Map 34600" prepared by Principe and Associates

Findings of Fact:

- The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their associated habitats in Western Riverside County. The Project

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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site is not located within the Western Riverside County MSHCP Criteria Area, and as such, is not identified for natural open space preservation. Properties outside of the Criteria Area are still required to be reviewed for consistency with: 1) the MSHCP's Protection of Species Associated with Riparian/Riverine Areas and Vernal Pool Guidelines; 2) the Protection of Narrow Endemic Plant Species guidelines; and 3) the Additional Survey Needs and Procedures.

Riparian/Riverine areas are not present on the property. The site is not located within a survey area for narrow endemic plant species. The Project area is subject to MSHCP Criteria surveys for burrowing owl. The TR 34118 area was surveyed for borrowing owl and its habitat in February and August 2005 by Principe and Associates, with negative results. The TR 34600 area was surveyed for borrowing owl and its habitat in January, April and June, 2006 by Principe and Associates, with negative results. Because habitat is not present, focused surveys were not conducted. However, due to the migratory nature of the burrowing owl, the potential exists for the species to locate onto the site prior to development of the Project, resulting in a potentially significant impact requiring mitigation.

- b & c) Site-specific biological field surveys conducted by Principe and Associates determined that no endangered, threatened, candidate, sensitive, or special status habitats, plants and/or wildlife is present on the TR34118 or TR34600 properties. As discussed above, due to the migratory nature of the burrowing owl, the potential exists for the species to locate onto the site prior to development of the Project, resulting in a potentially significant impact requiring mitigation.
- d) The Project site is not identified in the MSHCP Criteria Area as a wildlife corridor and the site is not used as a native wildlife nursery site. A majority of the site is actively farmed or consists of non-native grassland, and as such is not conducive to wildlife movement. No rivers, streams or other water bodies that support fish are present on the property. Terrestrial wildlife movement through the site is impeded by abutting roads and surrounding development.
- e & f) The biological field surveys concluded that no riparian, riverine, jurisdictional wetlands or waters are present on the property.
- f) According USGS maps, no blueline streams are located on the property. The Project biologist conducted a field survey and confirmed that the proposed Project site does not contain any blueline drainages or any other kind of drainages.
- g) No trees are present on the property that are governed by the County's Oak Tree Management Guidelines. No other local policies or ordinances protecting biological resources are applicable to the site, except for the MSHCP as discussed above under item a).

Mitigation:

Within 30 days prior to issuance of a grading permit, a pre-construction presence/absence survey for the burrowing owl shall be conducted on the site by a qualified biologist and the results of this survey shall be provided in writing to the County Biologist. If it is determined that that Project site is occupied by the burrowing owl, take of active nests shall be avoided. When the burrowing owl is present, active relocation outside of the nesting season (March 1 though August 15) by a qualified biologist shall be required. The County biologist shall be consulted to determine appropriate translocation sites. Occupation of the species on the Project site may result in the need to revise grading plans so that

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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take of active nests is avoided, or alternatively, a grading permit may be issued once the species has been actively relocated.

Prior to the issuance of clearing or grading permits, the Project applicant shall pay Local Development Mitigation Fees (per County Ordinance No. 659.6) for implementation of the MSHCP.

Monitoring: Monitoring to ensure compliance with the biological mitigation measures shall be conducted by the County Biologist and County Environmental Programs Department.

CULTURAL RESOURCES Would the Project

7. Historic Resources

a) Alter or destroy an historic site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: Specific Plan 260(A1) and EIR 329; County General Plan Figure OS-6 "Archaeological Sensitivity"; County General Plan Program, EIR Section 4.7 "Cultural Resources"; "Phase I Environmental Site Assessment Northwest Corner of Briggs and Highway 74" NATEC International, Inc.; "Phase I Environmental Site Assessment 27 Acres and Motte Country Plaza on the Northwest Corner of Highway 74 and Palomar Road" NATEC International, Inc.; "Phase I Cultural and Paleontological Assessment of the Motte Meniffee North Project" PCR Services Corporation.

Findings of Fact:

a) and b) According to previously certified EIR No. 329 and the Phase I Cultural and Paleontological Assessment, no historic sites, structures, or resources exist within the boundaries of TR 34118 (MR-27), TR 34600 (MR-56), or the 5.1 acres proposed to be annexed into Planning Area 10 under Specific Plan 260, Amendment 2 (SP 260(A2)). Furthermore, according to a records search conducted during the Phase I analysis, no structures are shown in or within proximity of the project site parcels on either a 1901 USGS 30' Elsinore or 1942 USGS 15' Perris topographic map. Because there are no recent historical-period buildings, foundations, or other sites within the SPA 260(A2) parcels, implementation of SPA 260(A2) would not result in an impact to a historic site.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

8. Archaeological Resources

a) Alter or destroy an archaeological site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Restrict existing religious or sacred uses within the	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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potential impact area?

Source: Specific Plan 260(A1) and EIR 329; Specific Plan 260 and EIR 329 Technical Appendices; County General Plan Figure OS-6 "Archaeological Sensitivity"; County General Plan Program, EIR Section 4.7 "Cultural Resources"; "Phase I Cultural and Paleontological Assessment of the Motte Menifee North Project" PCR Services Corporation.

Findings of Fact:

- a) & b) According to previously certified EIR No. 329 and the Phase I Cultural and Paleontological Assessment, a total of three cultural resources have been previously identified within a half-mile radius of the project site; however, no archaeological resources were identified within the boundaries of TR 34118 (MR-27), TR 34600 (MR-56), or the 5.1 acres proposed to be annexed into Planning Area 10 under Specific Plan 260, Amendment 2 (SP 260(A2)).

The extent of previous survey coverage in the area surrounding the project site and the relatively small number of previously identified cultural resources suggests that the project area is not archeologically sensitive with respect to prehistoric surface remains. Additionally, the Phase I technical analysis concluded the likelihood of discovering surficial archaeological items is low due to the past agricultural uses on the project site, which resulted in substantial disturbance to the site's surface and near-surface.

Although the Phase I technical analysis concluded that the possibility of discovering surface or near-surface archaeological resources on the project site is low, the potential for discovery of resources during grading or construction activities exists and requires mitigation.

- c) The site is not known to contain, nor is it likely to contain, human remains. However, the potential exists for the discovery of remains during ground disturbing activities associated with construction, requiring mitigation.
- d) There are no known religious or sacred uses within the project site.

Mitigation:

Prior to any clearing, grubbing and/or earth moving activities, a qualified archaeologist shall be retained by the developer. Consultation with the culturally affiliated Luiseño Tribe(s) is required. A pre-grading meeting between the archaeologist, a Native American observer, and the excavation and grading contractor shall take place to ensure an understanding of the mitigation measures required during construction.

Prior to issuance of a grading permit, the archaeologist shall develop a mitigation plan and a discovery clause/treatment plan, which shall include mitigation monitoring to be implemented during earthmoving on the project site. The treatment plan shall be developed in consultation with the culturally affiliated Luiseño Tribe(s) and shall account for treatment of any archaeological remains and associated data uncovered by brushing, grubbing, or earthmoving.

The project applicant shall enter into a pre-excavation agreement with the culturally affiliated Luiseño Tribe(s). The agreement shall document archeological monitoring requirements and specify the disposition of any significant resources discovered during monitoring.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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The landowner shall relinquish ownership of all cultural resources, including all Luiseno cultural sacred items, burial goods and all archaeological artifacts that are found on the project site, to the culturally affiliated Luiseño Tribe(s) for proper treatment and disposition.

Archaeological and tribal monitoring shall be conducted on a full-time basis for all grading and ground disturbing activities, including archaeological testing, until the project archaeologist in consultation with the culturally affiliated Luiseño Tribe(s) and the County of Riverside determines that resources are not likely to be encountered.

If archaeological remains are found by the archaeological monitor, earthmoving shall be diverted temporarily around the deposits until they have been evaluated, recorded, excavated, and/or recovered as necessary. Earthmoving shall be allowed to proceed through the site when the archaeological supervisor, in consultation with the culturally affiliated Luiseño Tribe(s) and the County of Riverside, determines the artifacts are recovered and/or the site is mitigated to the extent necessary.

If possible human remains are encountered during any earthmoving activities, all work shall stop in the area in which the find(s) are present, and the Riverside County Coroner must be notified. State law dictates that the Native American Heritage Commission (NAHC) shall be notified in the event that remains are determined to be human and of Native American descent.

If a previously unknown site is encountered and it requires additional mitigation, a plan or proposal shall be prepared by the archaeologist, in consultation with the culturally affiliated Luiseño Tribe(s) and County of Riverside, outlining the plan of action that needs to be implemented to mitigate the new site.

Any recovered archaeological resources shall be identified, recorded, mapped and artifacts catalogued as required by standard archaeological practices. Examination by an archaeological specialist shall be included where necessary, dependent upon the artifacts, features or sites that are encountered. Specialists shall identify, date, and/or determine significance potential.

A final report of findings shall be prepared by the archaeologist for submission to the Eastern Information Center and the County of Riverside. The report shall describe parcel history, summarize field and laboratory methods used, if applicable, and include any testing or special analysis information conducted to support the findings.

Monitoring: Monitoring shall be conducted by the Project Archaeologist, with oversight by the County Environmental Programs Department.

9. Paleontological Resources

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

Source: Specific Plan 260(A1) and EIR 329; Specific Plan 260 and EIR 329 Technical Appendices; County General Plan Figure OS-8, "Paleontological Sensitivity"; County General Plan Program, EIR Section 4.7 "Cultural Resources"; "Phase I Cultural and Paleontological Assessment of the Motte Meniffee North Project" PCR Services Corporation.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Findings of Fact: The previously certified EIR No. 329 and most recent Phase I paleontological analysis determined that no paleontological resources are known to occur on the site or in proximity to the site; however, the project site is considered sensitive for paleontological deposits, particularly in the subsurface. According to the Phase I analysis, sediments of the project area are identified as Quaternary alluvium (Qal) of the Holocene Age. Furthermore, the Riverside County Paleontological Sensitivity Map categorizes the site as “High B”, which denotes a high potential for the discovery of paleontological resources in subsurface sediments. Fossil localities have been identified approximately 1.5-mile southwest of the project site. Thus, although no paleontological resources are known to occur on the site, there is a potential for discovery of buried resources during grading and construction activities, and mitigation is required.

Mitigation:

Prior to any earthmoving activities, a vertebrate paleontologist retained by the project developer. The paleontologist shall develop a mitigation plan and a discovery clause/treatment plan that, when implemented during earthmoving activities in the project area shall allow for the recovery and subsequent treatment of any fossil remains and associated specimen and site data uncovered by these activities.

The paleontologist and a paleontologic construction monitor shall attend a pre-grade meeting to explain the monitoring program to grading contractor staff and to develop procedures and lines of communication to be implemented if fossil remains are uncovered by earthmoving activities, particularly when a monitor may not be on-site.

Earthmoving occurring at depths greater than three (3) feet shall be monitored by a qualified paleontologist, along with older alluvium deposits which occur at depths of less than three feet. Monitoring on a part-time basis is satisfactory given the relatively low sensitivity of the sediments. The supervising paleontologist shall have the authority to reduce monitoring once he/she determines the probability of encountering fossils has dropped below an acceptable level.

If fossils are encountered on the property during development, the following mitigation procedures shall be followed:

- If the monitor or construction contractor finds fossil remains, earthmoving activities shall be diverted temporarily around the fossil site until the remains have been recovered and these activities are allowed to proceed through the site by the monitor.
- If fossil remains are encountered by earthmoving activities when the monitor is not on site, these activities shall be diverted around the fossil site and the monitor called to the site immediately to recover the remains.
- If fossil remains are found, an appropriate amount of fossiliferous rock shall be recovered from the fossil site and processed to allow for the recovery of smaller fossil remains. Test samples may be recovered from other sampling sites in the rock unit.
- Any recovered fossil remains shall be prepared to the point of identification and identified to the lowest taxonomic level possible by knowledgeable paleontologists. The remains shall then be curated (assigned and labeled with museum repository fossil specimen numbers and corresponding fossil site numbers, as appropriate; placed in specimen trays

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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and, if necessary, vials with completed specimen data cards) and catalogued, and associated specimen data and corresponding geologic and geographic site data shall be archived (specimen and site numbers and corresponding data entered into appropriate museum repository catalogs and computerized data bases) at the museum repository by a laboratory technician. The remains shall then be accessioned into the museum repository fossil collection, where they shall be permanently stored, maintained, and, along with associated specimen and site data, made available for future study by qualified scientific investigators.

--A final report of results and findings shall be prepared by the paleontologist for submission to the County of Riverside and the museum repository following accessioning of the fossil collection into the museum repository fossil collection. The report shall describe the geology and stratigraphy parcel, summarize field and laboratory methods used, include a faunal list and an inventory of catalogued fossil specimens, evaluate the scientific importance of the specimens, and discuss the relationship of any newly recorded fossil site in the parcel to relevant fossil sites previously recorded from the fossil-bearing rock unit in the parcel vicinity and from correlative rock units in other regions.

Monitoring: Monitoring shall be conducted by the Project Paleontologist, with oversight by the County Environmental Programs Department.

GEOLOGY AND SOILS

Definitions for Land Use Suitability Ratings

Where indicated below, the appropriate Land Use Suitability Rating(s) has been checked.

NA - Not Applicable S - Generally Suitable PS - Provisionally Suitable
U - Generally Unsuitable R - Restricted

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

10. Alquist-Priolo Earthquake Fault Zone or County Fault Hazard Zones

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Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

A-P Zones NA ☒ PS ☐ U ☐ R ☐
CFH Zones NA ☒ PS ☐ U ☐ R ☐

Source: County General Plan Figure S-2 Earthquake Fault Study Zones"; County General Plan Program, EIR Section 4.10 "Geology and Slope Stability"; "Geotechnical/Geological Engineering Study: MR 56" EnGen Corporation; "Geotechnical/Geological Engineering Study: MR 27" EnGen Corporation

Findings of Fact: Although the Project is located in a seismically active area, the Project site does not lie within a mapped Alquist-Priolo Zone or a Riverside County Fault Hazard Zone. According to assessments of TR 34600 (Planning Area 23A) and TR 34118 (Planning Areas 7A and 7A) by EnGen Corporation, the areas are located approximately 8.8 and 9.9 miles from the San Jacinto Valley Segment of the San Jacinto Fault, respectively. TR 34600 and TR 34118 are located approximately 13.6 and 12.6 miles from the Temecula Segment of the Elsinore Fault zone. No known active faults traverse the project site, and there is no impact.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

11. Liquefaction Potential Zone

Seismic-related ground failure, including liquefaction?

NA ☐ S ☐ PS ☒ U ☐ R ☐

Source: Specific Plan 260 and EIR 329 Technical Appendices; County General Plan Figure S-3 "Generalized Liquefaction"; County General Plan Program, EIR Section 4.10 "Geology and Slope Stability"; "Geotechnical/Geological Engineering Study: MR 56" EnGen Corporation; "Geotechnical/Geological Engineering Study: MR 27" EnGen Corporation

Findings of Fact: According to assessments of TR 34600 (Planning Area 23A) and TR 34118 (Planning Areas 7A and 7A) by EnGen Cooperation, no groundwater was encountered within 50 feet of the surface of the site. Additionally, high relative densities were encountered in the majority of the soils below the zone of proposed recompaction. Settlement due to liquefaction is anticipated to be negligible; therefore, there is a less than significant impact. As part of construction, all existing low-density and potentially collapsible soil materials will be removed to underlying competent bedrock and receive compacted fill. Actual depths and horizontal limits of soil removals will be determined during grading on the basis of in-grading observations and testing performed by the Project geotechnical consultant and/or engineering geologist. Additionally, required compliance with the Uniform Building Code (UBC) during construction would reduce potential impacts to less than significant.

Mitigation: Required compliance with the Uniform Building Code (UBC) during construction would reduce potential ground shaking impacts to less than significant. No additional mitigation is required.

Monitoring: The County Building and Safety Department will ensure that structures are constructed in accordance with UBC requirements.

12. Ground-shaking Zone

Strong seismic ground shaking?

NA ☐ S ☒ PS ☐ U ☐ R ☐

Source: Specific Plan 260 and EIR 329 Technical Appendices; County General Plan Figure S-13 "Inventory of Hazardous Materials"; County General Plan Program, EIR Section 4.10 "Geology and Slope Stability"; "Geotechnical/Geological Engineering Study: MR 56" EnGen Corporation; "Geotechnical/Geological Engineering Study: MR 27" EnGen Corporation

Findings of Fact: Although there are no active or potentially active faults located within the boundaries of the site, a major earthquake in the Southern California area, including the nearby segments of the San Jacinto and Elsinore faults, both of which are active, could cause moderate to severe ground shaking at the site. According to an EnGen Corporation assessment of TR 34118 (Planning Areas 7A & 7B), an earthquake near the site could produce seismic shaking with an estimated maximum credible peak horizontal ground acceleration of 0.50g. The maximum credible

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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peak horizontal acceleration is the maximum acceleration that appears capable of occurring under the presently known tectonic framework and has a 10% chance of exceedance in 50 years. An EnGen Corporation assessment of TR 34600 (Planning Areas 23A) concluded that an earthquake near the site could produce seismic shaking with an estimated maximum credible peak horizontal ground acceleration of 0.53g.

The seismic risk for the proposed Project is not considered to be substantially different than that of other similar properties in the Southern California area, and the geologic investigations conducted of the site conclude that the property is suitable for development as proposed.

Mitigation: Required compliance with the Uniform Building Code (UBC) during construction would reduce potential ground shaking impacts to less than significant. No additional mitigation is required.

Monitoring: The County Building and Safety Department will ensure that structures are constructed in accordance with UBC requirements.

13. Landslide Risk

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazards?

NA ☒ S ☐ PS ☐ U ☐ R ☐

Source: Specific Plan 260 and EIR 329 Technical Appendices ; County General Plan Figure S-5 "Regions Underlain by Steep Slope"; County General Plan Program, EIR Section 4.10 "Geology and Slope Stability"

Findings of Fact: Approximately 91% of the Specific Plan area has slopes of less than 8%; therefore, slope instability and landslide risk are not considered significant. No previously identified gross slope instability, landslides, lateral spreading, collapse or rockfall hazards have been mapped on the proposed Project site.

Mitigation: No mitigation is required.

Monitoring: No Monitoring is required.

14. Ground Subsidence

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in ground subsidence?

Source: Specific Plan 260 and EIR 329 Technical Appendices; County Resolution No. 94-125; County General Plan Figure S-7 "Documented Subsidence Areas"; County General Plan Program EIR Section 4.10 "Geology and Slope Stability"; "Geotechnical/Geological Engineering Study: MR 56" EnGen Corporation; "Geotechnical/Geological Engineering Study: MR 27" EnGen Corporation

Findings of Fact: Ground subsidence in the vicinity of the project site has not been documented. The potential for subsidence is low. According to an EnGen Corporation assessment of TR 34118

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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(Planning Areas 7A & 7B), the on-site earth materials present are considered suitable for reuse as fill. A similar assessment of TR 34600 (Planning Areas 23A) also concluded the on-site earth materials present are suitable for reuse as fill.

Mitigation: No mitigation is required.

Monitoring: No Monitoring is required.

15. Other Geologic Hazards

Such as seiche, mudflow or volcanic hazard?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Source: Project Application; County General Plan Program, EIR Section 4.10 "Geology and Slope Stability"; "Geotechnical/Geological Engineering Study: MR 56" EnGen Corporation; "Geotechnical/Geological Engineering Study: MR 27" EnGen Corporation

Findings of Fact: An assessment of TR 34600 (Planning Area 23A) and TR 34118 (Planning Areas 7A and 7A) by EnGen Corporation concluded both areas are at low risk for seismically-induced flooding and earthquake-induced surface flooding. The Pacific Ocean is twenty-five miles from the site; thus there is no potential for a tsunami that could directly impact the proposed project site. The project site is not located within a dam inundation area or within range of an active volcano. The project site would be constructed pursuant to prevailing seismic codes.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

Would the Project:

16. Slopes

a) Change topography or ground surface relief features?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b) Create cut or fill slopes greater than 2:1 or higher than 10 feet?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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c) Result in grading that affects or negates subsurface sewage disposal systems?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Source: Specific Plan 260(A1) and EIR 329; Riv. Co. 800 Scale Slope Maps; County General Plan Figure S-5 "Regions Underlain by Steep Slopes"; County General Plan Program, EIR Section 4.10 "Geology and Slope Stability"; "Geotechnical/Geological Engineering Study: MR 56" EnGen Corporation; "Geotechnical/Geological Engineering Study: MR 27" EnGen Corporation

Findings of Fact:

- a) The existing topography of the proposed project site is nearly level; elevations range from approximately 1,550 feet above mean sea level (MSL) to approximately 1,450 feet above MSL. No unique topographical features are present on the property. Construction on the proposed project site will not substantially change the site's topography. Maximum indication of all cut and fill slopes are proposed to be 2 horizontal to 1 vertical.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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- b) Since the proposed project site is relatively flat, there will be no need for cut and fill slopes greater than 2:1. An assessment of TR 34600 (Planning Area 23A) and TR 34118 (Planning Areas 7A and 7B) by EnGen Corporation also recommended a 2:1 cut and fill ratio; subsequently, grading would not be considered significant.
- c) The project site will not result in grading that affects or negates subsurface sewage disposal systems, because no surface sewage systems are located within the area affected by SP 260(A2), TR 34118, and TR 34600.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

17. Soils	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source: Western Riverside Area California, Soil Survey, Application Materials; Site Visit; County General Plan Program EIR Section 4.10 "Geology and Slope Stability"; "Geotechnical/Geological Engineering Study: MR 56" EnGen Corporation; "Geotechnical/Geological Engineering Study: MR 27" EnGen Corporation

Findings of Fact:

- a) The soils in the proposed project area are Hanford-Tujunga-Greenfield Association. They are deep and well-drained to excessively well-drained. The site is nearly level and has a surface layer of sand and sandy loam on alluvial fans. Runoff from sand and sandy loam is slow and erosion is slight to moderate. Grading would remove the site's existing vegetative cover and expose the underlying soils, which would increase the rate of runoff and increase erosion susceptibility during construction. Implementation of the proposed project would result in development of the property and the introduction of permanent impervious surfaces and landscaping, thereby reducing erosion potential and loss of topsoil in the long-term. Impacts would be significant in the short term, during construction.
- b) A site assessment of TR 34600 (Planning Area 23A) by EnGen Corporation concluded the Expansion Index (EI) of the soil ranged from EI=0 to 2, which is classified as having a very low expansion potential. In the vicinity of the site, the older alluvium may contain expansive soils. If present, mixing of these soils could affect the overall EI of the fill.

In a similar site assessment of TR 34600 (Planning Area 7A and 7B) by EnGen Corporation, the Expansion Index (EI) was EI=10, which is also classified as having a very low expansion potential. Based on the expansion of some of the consolidation samples below 7.5 feet, expansive soils may be present on site. Mixing of these soils during grading could affect the overall EI of the fill.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Mitigation:

Graded but undeveloped land shall be maintained weed-free and planted with interim erosion control landscaping within 90 days of completion of grading, unless building permits are issued.

Graded but undeveloped land shall provide any drainage facility deemed necessary by the County to control or prevent erosion. Additional erosion protection may be required by the County during the rainy season from October 15 to April 15.

If any cut or fill slopes are created equal to or greater than three (3) feet in vertical height, detailed Landscaping and Irrigation Plans shall be submitted to the County Building and Safety Department prior to Grading Plan approval. Erosion control landscape plans shall be submitted for all slopes required to be planted and shall be signed by a registered landscape architect. The plans shall be reviewed by the County for type and density of ground cover, shrubs, and trees to ensure that plant material would be affected as erosion control and that all slopes would be landscaped per County Ordinance No. 457.

Positive drainage of the site shall be provided, and water shall not be allowed to pond behind or flow over any cut or fill slopes. Where water is collected in a common area and discharged, protection of the native soils shall be as provided by planting erosion resistant vegetation.

Final structure foundation design parameters shall be based on Expansion Index testing of near-surface soils and be performed by a geotechnical engineer at the conclusion of rough grading.

Recent alluvium present in the soil of TR 34118 (Planning Areas 7A and 7B) shall be removed from the building pad areas in order to maintain tolerable settlement predictions.

Recent alluvium and upper portions of older alluvium present in the soil of TR 34600 (Planning Area 23A) are subject to hydroconsolidation and shall be removed from the building pad areas in order to maintain tolerable settlement predictions.

Monitoring: Riverside County's Building and Safety Department and County Geologist will ensure compliance with required mitigation measures for impacts to soils.

18. Erosion

a) Change deposition, siltation or erosion which may modify the channel of a river or stream or the bed of a lake?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b) Result in any increase in water erosion either on or off site?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Source: U.S.D.A. Soil Conservation Service Soil Surveys for Western Riverside Area, California; County General Plan Program, EIR Section 4.10 "Geology and Slope Stability";

Findings of Fact:

a) Short-term erosion would occur during Project grading and construction. Erosion control measures are required by the County and the RWQCB to limit the amount of soil and sediment material that would leave the site boundaries. The project site does not contain any river

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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channels, streams or lakebeds, nor is it near enough to a river channel, stream or lakebed to have a significant erosional effect.

- b) Due to the slight level of erosion and slight to moderate runoff for the soil types, the project site does not naturally experience much erosion; however, grading activities associated with the proposed Project will increase soil erosion and runoff in the short-term. Development of the property will result in an increase of impermeable surfaces which could increase off-site water erosion. Erosion would be controlled part of the required Storm Water Pollution and Prevention Plan (SWPPP) that will incorporate Best Management Practices (BMP's) during construction. Following development of the property and the introduction of impervious surfaces and landscaping, erosion and loss of top soil will be substantially reduced.

Mitigation:

Prior to issuance of any grading or construction permits, whichever comes first, the applicant shall provide evidence to the County of compliance the National Discharge Elimination System (NPDES) requirement to obtain a construction permit from the State Water Resources Control Board (SWRCB). The permit requirement applies to grading and construction sites of one (1) acre or larger. The owner operator can comply by submitting a Notice of Intent (NOI), developing and implementing a Storm Water Pollution Prevention Plan (SWPPP) and a monitoring program and reporting plan for the construction site.

Monitoring: Riverside County's Building and Safety Department will ensure compliance with required mitigation measures for soil erosion during construction.

19. Wind Erosion and Blowsand from Project either on or off site.

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Be impacted by or result in an increase in wind erosion and blowsand, either on or off site?

Source: Specific Plan 260(A1) and EIR 329; County General Plan Figure S-8 "Wind Erosion Susceptibility Map"; Ord. 460, Sec. 14.2 & Ord. 484; County General Plan Program EIR Section 4.10 "Geology and Slope Stability"

Findings of Fact: According to the County General Plan, the project site lies outside of the County's mapped Wind/Erosion and Blowsand areas. Under existing conditions, the site is subject to wind erosion when soils are exposed during harvest and tilling of the onsite agricultural fields. During Project construction, the site would not be exposed to any increased wind erosion above that which already occurs under existing conditions. Implementation of the proposed Project would result in development of the property, thereby eliminating exposed, unvegetated soils and reducing the potential for wind erosion.

Mitigation: No mitigation is required beyond the erosion control measures indicated under item #17, above.

Monitoring: No monitoring is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS Would the Project				
20. Hazards and Hazardous Materials	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: County General Plan Program, EIR Section 4.11 "Hazardous Materials"; <http://www.dtsc.ca.gov/database/Calsites/Cortese> ; "Phase I Environmental Site Assessment Northwest Corner of Briggs and Highway 74" NATEC International, Inc.; "Phase I Environmental Site Assessment 27 Acres and Motte Country Plaza on the Northwest Corner of Highway 74 and Palomar Road" NATEC International, Inc.

Findings of Fact:

- a) In a review of historic aerial photographs of TR 34600 (Planning Area 23A), NATEC International, Inc. concluded the site has been an agricultural field for the last 50 years. A site reconnaissance team found no soil stains and no significant areas of environmental concern.

A similar review of historic information for TR 34118 (Planning Areas 7A and 7B) concluded the site was an undeveloped field in 1949 and is currently farmed. Structures built in Planning Area 8 include retail offices (1978), a barn (1980), a church (1997), and post office (1994). During a site visit, no soil stains or other areas of major environmental concern were noted. Lead-based paint (LBP) may have been utilized on the structures and railroad cars currently on-site in Planning Area 8.

Due to the former land uses of the TR 34600 and TR 34118 properties and other SP 260(A2) area it is unlikely that large quantities of pesticides, insecticides, and/or herbicides were used on the property in question. Also, the site does not contain plugged and abandoned nor active oil and/or gas wells.

The SP 260(A2) area is proposed to be developed primarily for suburban residential uses, commercial uses and active recreation. Cleaning products used in residential and commercial

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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operations that contain toxic substances are usually low in concentration and small in amount; therefore, there is no significant risk to humans or the environment.

Planning Areas 8 and 23B are designated for commercial uses. The specific businesses that will be located in this portion of the site are unknown at this time; however, based on the proposed permitted uses, some hazardous materials could be utilized during the course of daily operations. Such hazardous materials may include many chemical reagents, solvents, fuels, paints, cleansers, and pesticides. Proposed uses could also generate hazardous byproducts that must eventually be handled and disposed of as hazardous materials.

- b) Residential and recreational land uses would not involve the release of hazardous materials. Planning Areas 8 and 23B are designated for commercial uses; however, there are no reasonably foreseeable upset and accident conditions that could occur with possible future retail businesses if such businesses are in compliance with regulatory local, state, and federal laws requiring the proper handling and disposal of hazardous materials.
- c) The Project does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and at Project build-out, the proposed Project would maintain adequate emergency access for emergency vehicles as required by the County. Impacts are considered less than significant.
- d) No schools are proposed within or are located adjacent to the SP 260(A2) area.
- e) The Department of Toxic Substances Control for the State of California does not list any hazardous waste and substance sites near the proposed project area. An information search by NATEC International, Inc. concluded that there are no hazardous waste sites or solid waste landfill within a one-mile radius of the project site.

Mitigation:

In the event that any subsurface hazardous materials are found during grading or construction, including soil and/or groundwater contamination, all activity in the area of discovery and/or in an appropriate radius of the area of discovery shall temporarily cease and the County of Riverside Department of Environmental Health shall be notified. Prior to the resumption of any construction activity in the area of discovery, the site shall be deemed safe by the appropriate entity prior to the resumption of grading and/or constructions activities.

Prior to the issue of demolition permits for existing structures in Planning Area 8, the project proponent shall conduct a lead based paint (LBP) survey to determine if LBP is present. If LBP is found, the project proponent shall take adequate steps to have the materials safely removed and disposed of in accordance with regulatory requirements. During the course of demolition of renovation activities, construction contractors shall follow regulations requiring the abatement of LBP materials to prevent exposure to both workers and the surrounding areas.

All commercial retail tenants in Planning Area 8 and 23B shall be required to comply with applicable federal, state, and local regulation requiring proper storage, handling, transport and elimination of toxic substances and hazardous by-products as regulated by the State of California Department of Toxic Substances and the County of Riverside Department of Environmental Health.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Monitoring: The County Department of Environmental Health will ensure implementation of the mitigation measures for hazardous materials.

21. Airports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a) Result in an inconsistency with an Airport Master Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require review by the Airport Land Use Commission?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) For a Project within the vicinity of a private airstrip, or heliport, would the Project result in a safety hazard for people residing or working in the Project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: County General Plan Figure S-19 "Airport Locations"; SJUAP Figure 4, "Harvest Valley/Winchester Area Plan Policy Areas"

Findings of Fact:

- a) SP 260(A2) affected by Areas of Change 2, 3, and 4 are located within the southern most portion of the March Air Reserve Base Area of Influence III. The County General Plan discourages building schools, auditoriums, amphitheaters and stadiums in this area. The Project, including TR 34600 and TR 34118, does not propose to develop these types of structures; therefore, the Project would not conflict with the Airport Master Plan. The proposed project falls outside the Hemet Ryan Airport contours and is located over 3½ miles from the Perris Valley Airport; these airports do not have a significant impact on Specific Plan Amendment No. 2.
- b) Although a portion of the SP 260(A2) site is located within March Air Reserve Base's Area of Influence Area III, the SP 260(A2) is not subject to Airport Land Use Commission review because no structures over 100 feet in height are proposed.
- c) The project site is not located with a hazard zone for the March Air Reserve Base. The SP 260(A2) area affected by Areas of Change 2, 3, and 4 are located within the southern most portion of the March Air Reserve Base Area of Influence III; however, because no structures over 100 feet are proposed and the Project does not include any land uses discouraged in the Airport Environs, impacts would be less than significant.
- d) The project site is not within the vicinity of a private airstrip or heliport and would not affect the safety of people residing or working within the Project boundary.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

22. Hazardous Fire Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Source: County General Plan Figure S-11 "Wildfire Susceptibility"; Riverside County GIS database; Aerial photograph (2005)

Findings of Fact: According to County General Plan Figure S-11 "Wildfire Susceptibility," the proposed Project site is not located within a wildfire susceptibility zone. No wildlands are located adjacent to the site. The proposed Project will adhere to County Fire Department standards and requirements.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

HYDROLOGY AND WATER QUALITY Would the Project

23. Water Quality Impacts

a) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

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b) Violate any water quality standards or waste discharge requirements?

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

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d) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

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e) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

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f) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

☐ ☐ ☐ ☒

g) Otherwise substantially degrade water quality?

☐ ☒ ☐ ☐

Source: RCFCWCD Flood Hazard Report; County General Plan Program EIR Section 4.17 "Water Resources"; County General Plan Figure S-9 "100 & 500 Year Flood Hazard Zones; "Water Quality Management Plan for Tract 34118" prepared by Albert A. Webb Associates; "Water Quality Management Plan for Tract 34600 prepared by Hunsaker & Associates

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Findings of Fact:

- a) In the short-term, construction of the proposed Project would include grading that would result in potential short-term erosion and sedimentation impacts. No stream or river course would be modified with implementation of the proposed Project. The proposed Project would alter existing micro-drainage patterns because the sheet-flow drainage patterns that exist on the project site currently flow to storm drain systems that are not within the Specific Plan boundaries. Pre-development surface runoff within and near the site generally flows in a southwesterly direction towards Highway 74. SP 260(A2) features a Master Drainage Plan, which is designed to accommodate on-site and tributary flows. Runoff from the project site will be conveyed to proposed public drainage facilities some of which are to be constructed by the Project. Since the drainage facility from the site will be a concrete pipe, site runoff will not impact erosion in the proximate receiving drainage facility.

In TR 34118 (Planning Area 7A and 7B), the site's onsite drainage is designed to flow towards five bio-swales. These bio-swales will release runoff slowly enough to reduce downstream peak flows to their pre-development levels and allow fine sediments to settle before being discharged into the SP 260(A2) drainage system. In TR 34600 (Planning Area 23A), storm runoff in post development conditions would be conveyed in accordance with the Romoland Master Drainage Plan (MDP). The MDP proposes a regional facility, Line A- 3d, which will convey flow southerly along Malone Avenue from Watson Road to Varela Lane. At this point, Line A-3d connects to Line A-3, which conveys flow westerly along Varela Lane. The northwest portion of TTM 34600 is tributary to Lines A-3d and A-3 under pre-developed conditions. Therefore, this portion of the development has been designed to drain to these lines. The remainder of the site will be designed so that the storm runoff continues to be conveyed southerly towards Highway 74. There are additional master plan facilities along Highway 74 that will ultimately collect this southerly runoff.

- b) The only receiving water that is included on the 303(d) list of impaired water bodies is Canyon Lake, located several miles south of the project site. The lake is impaired for nutrients and pathogens. Primary sources of nutrients in urban runoff are fertilizers and eroded soils. Eroded soils and the presence of agricultural fertilizers would be reduced by implementation of the Project because agriculture uses would be discontinued and the amount of bare soil would be greatly reduced with development. Pathogens (bacteria and viruses) are proliferated by the transport of animal or human fecal wastes. The proposed development would not increase human fecal wastes.

TR 34118 and TR 34600 and other development in the SP 260(A2) area would be required to comply with the Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2002-0011/NPDES Permit No. CAS 618033. Order No. R8-2002-0011 requires the preparation and implementation of project-specific Water Quality Management Plans (WQMP). A WQMP has been prepared for TR 34118 by Webb and Associates and for TR 24600 by Hunsaker and Associates. WQMP's also will be required for other Specific Plan Planning Areas at the time implementing subdivision maps are prepared.

Upon implementation of TR 34118 and TR 34600, development would result in an increase in the amount of urban pollutants that would be washed off the site's impervious surfaces during rainfall events. Urban runoff is considered a "non-point" source of water pollution; unlike "point" source wastes, "non-point" sources cannot be quantified through flow measurement, sampling, and

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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analysis techniques. The following table lists pollutants of concern that can potentially exist at the proposed site.

Type of Development (Land Use)	Sediment/ Turbidity	Nutrients	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Bacteria & Viruses	Oil & Grease	Pesticides	Metals
Detached Residential	E	E	N	E	E	E	E	E	N
Streets, Highways & Freeways	E	P ⁽¹⁾	E ⁽⁴⁾	E	P ⁽¹⁾	P ⁽⁶⁾	E	P ⁽¹⁾	E

E = Expected P = Potential N = Not Expected

- (1) A potential pollutant if landscaping or open area exists on the project site
- (2) A potential pollutant if the project includes uncovered parking areas
- (3) A potential pollutant if land use involves animal waste
- (4) Specifically, petroleum hydrocarbons
- (5) Specifically, solvents
- (6) Bacterial indicators are routinely detected in pavement runoff

The Project-specific WQMP's for TR 34118 and TR 34600 specify Best Management Practices (BMPs), which will control and remove pollutants typically associated with urban runoff. To accomplish this, the Project's WQMP for TR 34118 proposes a series of bio-swales and the WQMP for TR 34600 proposes a water quality basin as the primary BMP to be implemented at the site. The majority of the surface runoff from the residential development would be directed to this basin for filtration prior to entering the receiving facilities. In addition, grass-lined and vegetated swales are proposed in the landscape areas and along some portions of the site perimeter for filtration.

- c) The Project does not propose to extract groundwater directly from any existing or proposed water well and, therefore, would not directly deplete groundwater supplies. Domestic water would be supplied to the site by EMWD. The Project is consistent with EMWD's Urban Water Management Plan and would not generate a demand for water usage beyond that which has been planned for by EMWD. The site does not serve as a water aquifer recharge area and development of the Project would not interfere with groundwater recharge.
- d) As discussed above under Item a), SP 260(A2) features a Master Drainage Plan, which is designed to accommodate on-site and tributary flows. Runoff from the project site will be conveyed to proposed public drainage facilities some of which are to be constructed by the Project. Drainage facilities are sized to accommodate the Project's runoff, resulting in a less than significant impact.

As discussed above under Item b), development of the site would add additional urban pollutants to the site's runoff. These pollutants are not regarded as substantial and would be filtered by the construction of bio-swales and water quality basins.

- e & f) The area within the proposed Specific Plan 260 Amendment No. 2 does not lay within the 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map. Any structures constructed on the project site would not have the potential to impact flood waters.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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- g) No additional sources of water quality degradation are known beyond those listed above. Water quality features and implementation of required WQMP's would reduce direct impacts to water quality.

Mitigation: The developer or builder for the proposed Project shall be required to comply with the Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2002-0011/NPDES Permit No. CAS 618033 prior to issuance of grading permits. The NPDES permit requires preparation and implementation of a site-specific WQMP for each subdivision which specifies Best Management Practices (BMPs) to minimize pollutants in stormwater runoff, as well as non-storm water discharges.

Monitoring: Monitoring shall be performed by the Riverside County Department of Building and Safety and the Santa Ana Regional Water Quality Control Board.

24. Floodplains

Degree of Suitability in 100-Year Floodplains. As indicated below, the appropriate Degree of Suitability has been checked.

NA - Not Applicable <input checked="" type="checkbox"/>	U - Generally Unsuitable <input type="checkbox"/>	R - Restricted <input type="checkbox"/>		
a) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Changes in absorption rates or the rate and amount of surface runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam (Dam Inundation Area)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Changes in the amount of surface water in any water body?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: Specific Plan 260 (A1) & EIR No. 329; County General Plan Figure S-9 "100- and 500-Year Flood Hazard Zones"; Figure S-10 "Dam Failure Inundation Zone"; Riverside County Flood Control and Water Conservation District; County General Plan Program, EIR Section 4.9 "Flood and Dam Hazards"

Findings of Fact:

- a & b) Pre-development surface runoff within and near the site generally flows in a southwesterly direction towards Highway 74. After development, runoff from the project site will be conveyed to proposed public drainage facilities some of which are to be constructed by the Project. Drainage would be conveyed in accordance with the Romoland Master Drainage Plan (MDP) and no flooding would occur on- or off-site. Surface runoff would not leave the site at any greater rate or intensity than occurs under existing conditions.
- c) The areas affected by Specific Plan 260 Amendment No. 2 is not located within a 100-year floodplain or within range of a levee or dam. There is no risk for significant flooding impact in this area.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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- d) The discharge of drainage would not result in changes in the amount of surface water in any water body. No bodies of water are located on the project site. Storm water from the proposed Project would discharge into a public drainage system designed as part of the Romoland Master Drainage Plan (MDP).

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

LAND USE/PLANNING Would the Project

25. Land Use

a) Result in a substantial alteration of the present or planned land use of an area?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b) Affect land use within a city sphere of influence and/or within adjacent city or county boundaries?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Source: County General Plan; Riverside County GIS; Project Application Materials; Harvest Valley/Winchester Area Plan

Findings of Fact:

a) As a result of SP 260(A2), the total Menifee North Specific Plan acreage would be reduced from 1,636.2 acres to 1,445.1 acres. The area being removed from the Specific Plan is designated as Industrial by SP 260(A1) and would retain industrial zoning (I-P) when removed from the Specific Plan boundary. Internal to SP 260, residential areas would increase from 585.3 acres and 2,390 dwelling units to 623.1 acres and 2,624 dwelling units. Development would continue to occur in the context of the Menifee North master-planned community and would not be regarded as a substantial alteration of land use. Menifee North has been approved for master-planned development since 1994.

b) The project site is located in unincorporated Riverside County. The project site is not located within a city sphere of influence nor is it adjacent to any city or county boundary line.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

26. Planning

a) Be consistent with the site's existing or proposed zoning?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b) Be compatible with existing surrounding zoning?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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c) Be compatible with existing and planned surrounding land uses?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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d) Be consistent with the land use designations and policies of the Comprehensive General Plan (including those of any applicable Specific Plan)?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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e) Disrupt or divide the physical arrangement of an

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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established community (including a low-income or minority community)?

Source: County General Plan Land Use Element; Project Application Materials; Riverside County GIS; Harvest Valley/ Winchester Area Plan

Findings of Fact:

- a) The project site is currently zoned Specific Plan. Change of Zone No. 07195 proposes to change the Specific Plan zoning designations to provide consistency with the land use changes proposed by SP 260(A2). The industrial area being removed from the Specific Plan boundary (portion of Planning Area 2) would be changed in zone from SP 260 to I-P (Industrial Park). The area being added to the Specific Plan boundary (portion of Planning Area 10) would be redesignated from A-1-1 to SP 260. No inconsistencies would occur with approval of the proposed Change of Zone. TR 34118 and 34600 would implement the SP zoning designation for Planning Areas 7A, 7B and 23A.
- b & c) The Project would amend the previously approved Menifee North Specific Plan to change land use designations within the Specific Plan boundary in four areas. Approximately 76.4 acres of land designated as Industrial in Planning Area 2 would be removed from the Specific Plan boundary, but would retain Industrial zoning (I-P); therefore, there would be no compatibility impacts to existing zoning or land use designations. Planning Area 7 is proposed to be divided into Planning Areas 7A and 7B and be redesignated from Industrial to Medium High Residential (7A) and High Density Residential (7B). Residential uses would be compatible with the adjacent residential land uses to the north and west. TR 34118 shows that the residential uses in this area would be separated from business park uses to the east by Palomar Road and from commercial uses to the south by a private recreation center, local roads, parking and landscaping, resulting in no land use conflicts. Planning Area 10 is proposed to be redesignated from Low Density Residential to Community Park, which is a compatible land use in the area. Lastly, Planning Area 48 is proposed to be combined with Planning Area 20 and reduced in acreage into one 9.5-acre Community Park/Center and Planning Area 23 (Commercial) would be divided into Planning Area 23A (Garden Courts) and Planning Area 23B (Commercial), and increased in size to accommodate the size reduction in Planning Area 20. TR 34600 shows that Planning Area 23A would be buffered from the Planning Area 23B commercial area by a slope and a setback of at least 19 feet, and from other surrounding land uses by public roads. To ensure land use compatibility between TR 34600 and the commercial area to the south, a solid wall is required as mitigation.
- d) The Project proposes to develop the SP 260(A2) area with residential, recreation and commercial center land uses. TR 34118 and TR 34600 would implement the residential land use designations for Specific Plan Planning Areas 7A, 7B and 23A. The policies of the Menifee North Specific Plan No. 260, which govern development of the project site, would be adhered to or modified as part of SP 260 (A2). The site is located within two Harvest Valley/ Winchester Area Plan Policy Areas: the March Air Reserve Base Airport Influence Policy Area and the Hwy. 79 Policy Area. Project consistency with these applicable policies is discussed below.

March Air Reserve Base Policy Area

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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HVWAP 12.1: *To provide for the orderly development of March Air Reserve Base and the surrounding area, comply with the March JPA General Plan and fully set forth in Appendix L and as summarized in Table 5, as well as any applicable policies related to airports in the Land Use, Circulation, Safety and Noise Elements of the Riverside County General Plan.* SP 260(A2) affected by Areas of Change 2, 3, and 4 are located within the southern most portion of the March Air Reserve Base Area of Influence III. The County General Plan discourages building schools, auditoriums, amphitheaters and stadiums in this area. The Project, including TR 34600 and TR 34118, does not propose to develop these types of structures nor any structure over 100 feet in vertical height; therefore, the Project would not conflict with the Airport Master Plan.

Highway 79 Policy Area

HVWAP 7.1: *Accelerate the construction of transportation infrastructure in the Highway 79 Policy Area. The County shall require that all new development projects demonstrate adequate transportation infrastructure capacity to accommodate the added traffic growth.*

As demonstrated by Project-specific traffic studies conducted for TR 34118 and 34600, adequate transportation infrastructure is available to service the Project. The proposed Project would construct necessary roadway improvements and would pay impact fees in accordance with TUMF to fund regional transportation infrastructure.

HVWAP 7.2: *Establish a program in the Highway 79 Policy Area to ensure that overall trip generation does not exceed system capacity and that the system operation continues to meet Level of Service Standards. In general, the program would establish guidelines to be incorporated into individual Traffic Impact Analysis that would monitor overall trip generation from residential development to ensure that overall within the Highway 79 Policy Area development projects produce traffic generation at a level that is 9% less than the trips projected from the General Plan traffic model residential land use designations. Individually, projects could exceed the General Plan traffic model trip generation level, provided it can be demonstrated that sufficient reductions have occurred on other projects in order to meet Level of Service Standards.*

As shown on the below table, SPA 260(A2) would result in a reduction of average daily trips (ADT) by 22%, with a 34% reduction in the AM peak hour and a 21% reduction in the PM peak hour. Traffic generation would be reduced by more than 9%; therefore, the Project would comply with the Hwy. 79 Policy.

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Planning Area	Land Use Designation	# of Acres for PA Proposed in Original SP	# of Acres for PA Proposed with SPA	# of Acres Conversion from Commercial to Residential	Lot #s in project in PA [currently proposed]	Lots per RCP	NET LOTS		CURRENT SP TRIP GENERATION			Residential D.U. Proposed with SPA	PROPOSED SP TRIP GENERATION		
							Reduction of Lots per SR-79		AM	PM	Daily		AM	PM	Daily
4	MEDIUM HIGH	21.8	19.0		56	61	-5					56	42	57	536
5	MEDIUM HIGH	18.3	18.6		60	59	1					60	45	61	574
6	MEDIUM HIGH	24.6	24.6		74	78	-4					74	56	75	708
7	BUS PARK	24	0				-516	553	499	4,938					
7A	MEDIUM HIGH		15.2				85					85	64	86	814
7B	MEDIUM HIGH		11.9				84					84	63	85	804
8	COMMERCIAL	6.3	3.3	3			-10	119	453	4,961		33	295	3,235	
10	RESIDENTIAL - PARK	6.2	14.6		12		-12	9	12	115		20	40	500	
20	PARK, COMMUNITY PARK/CENTER	12	9.5					42	84	1,040		20	38	480	
23	COMMERCIAL	36.4					-116	345	1,470	15,616					
23A	HIGH DENSITY		17.5	17.5			162					162	122	164	1,550
23B	COMMERCIAL		23.7				75					243	1,104	11,878	
48	COMMUNITY PARK/CENTER	4	0					8	16	200					
		153.6	157.9				-255	1076	2534	26870		708	2,004	21,079	

DIFFERENCE BETWEEN CURRENT AND PROPOSED TRIPS					
AM Peak Hour Traffic Differential	%	PM Peak Hour Traffic Differential	%	Daily Traffic Differential	%
-369	-34%	-530	-21%	-5791	-22%

- d) The Project proposes to develop the SP 260(A2) area with residential, recreation and commercial center land uses. TR 34118 and TR 34600 would implement the residential land use designations for Specific Plan Planning Areas 7A, 7B and 23A. The policies of the Menifee North Specific Plan No. 260, which govern development of the project site, would be adhered to or modified as part of SP 260 (A2). The site is located within two Harvest Valley/ Winchester Area Plan Policy Areas: the March Air Reserve Base Airport Influence Policy Area and the Hwy. 79 Policy Area. Project consistency with these applicable policies is discussed below.

Mitigation: A solid wall is required to be constructed along the southern boundary of TR 34600 to provide physical separation between the residential uses in TR 34600 and the commercial uses to the south in Planning Area 8 of SP 260 (A2).

Monitoring: No monitoring is required.

MINERAL RESOURCES Would the Project

27. Mineral Resources

- a) Result in the loss of availability of a known mineral resource in an area classified or designated by the State that would be of value to the region or the residents of the State?

☐ ☐ ☐ ☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be an incompatible land use located adjacent to a State classified or designated area or existing surface mine?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or property to hazards from proposed, existing or abandoned quarries or mines?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Source: County General Plan Figure MS-5 "Mineral Resources Area"; County General Plan Program EIR Section 4.12 "Mineral Resources"

Findings of Fact:

- a) The proposed Project is mapped as MRZ-3 and is not located within an area of known mineral resources; therefore, development of the Project would not result in the loss of availability of a known mineral resource.
- b) The Project site is designated for development by the County's General Plan, Harvest Valley/Winchester Area Plan and the Menifee North Specific Plan. Due to the project site's lack of known mineral resources, development of the Project would not result in the loss of a locally-important mineral resource recovery site.
- c) The proposed Project is not located near a classified, designated, or existing surface mine.
- d) The proposed project site does not contain any historic mine sites and no mining is proposed on the property. Implementation of the Project would not expose people or property to existing or abandoned quarries or mines because these uses do not exist on the property.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

NOISE Would the Project result in

Definitions for Noise Acceptability Ratings

Where indicated below, the appropriate Noise Acceptability Rating(s) has been checked.

NA - Not Applicable

A - Generally Acceptable

B - Conditionally Acceptable

C - Generally Unacceptable

D - Land Use Discouraged

28. Airport Noise

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

NA ☐ A ☒ B ☐ C ☐ D ☐

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

NA ☒ A ☐ B ☐ C ☐ D ☐

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Source: County General Plan Figure S-19 "Airport Locations", County of Riverside Airport Facilities Map; Harvest Valley/Winchester Area Plan Figure 4 "Harvest Valley/Winchester Area Plan Policy Areas";

Findings of Fact:

- a) SP 260(A2) affected by Areas of Change 2, 3, and 4 are located within the southern most portion of the March Air Reserve Base Area of Influence III, but outside of the airport's mapped 65 CNEL noise contour.
- b) The proposed Project is not within the vicinity of a private airstrip.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

29. Railroad Noise

NA ☐ A ☒ B ☐ C ☐ D ☐

☐ ☐ ☒ ☐

Source: Specific Plan 260(A1) & EIR No. 329; County General Plan Figure C-1 "Circulation Plan"; S-21 "Rail Facilities, Available Water; Oil and Natural Gas Pipelines Inventory Data"; Thomas Guide 2005 Edition; Site Visit

Findings of Fact: Tentative Tract Map No. 34118 (Planning Area 7A and 7B) is located approximately 0.33-mile from the Atchison, Topeka, and Santa Fe railroad. EIR No. 329 documented that the area along the railroad tracts is subject to noise levels less than 65 CNEL. At 50 feet from the railroad track centerline, the maximum unmitigated noise level is 62.9 CNEL. Because Planning Areas 7A and 7B are 0.33 mile from the railroad tracks, noise impacts would be less than significant.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

30. Highway Noise

NA ☐ A ☐ B ☒ C ☐ D ☐

☐ ☒ ☐ ☐

Source: Specific Plan 260(A1) & EIR No. 329 Project Application Materials; County General Plan Program EIR Section 4.13 "Noise"; "Motte Meniffee Specific Plan 260 MR-27 (TM 34118) Preliminary Noise Study" Urban Crossroads; "Motte Meniffee Specific Plan 260 MR-56 (TM 34600) Preliminary Noise Study" Urban Crossroads.

Findings of Fact: The County General Plan Noise Element indicates that noise levels for commercial land uses are acceptable up to 70 dBA and conditionally acceptable up to 75 dBA. Noise levels for residential uses and parks are acceptable up to 65 dBA for outdoor noise and 45 dBA for indoor noise.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Results of the noise analysis for TR 34118 indicate that future vehicle noise from Palomar Road and Ethanac Road are the principal sources of community noise that would impact the residential units in Planning Areas 7A and 7B. As shown in the below tables, portions of TR 34118 would experience unmitigated exterior and interior noise levels that exceed Riverside County noise standards for transportation-related noise impacts.

Future Exterior Noise Levels for TR 34118

LOT	ROADWAY	UNMITIGATED	MITIGATED	BARRIER HEIGHT (IN FEET)	TOP OF BARRIER ELEVATION
1	Palomar Avenue	66.8	62.3	5.0	72.5
69	Palomar Avenue	66.2	62.0	5.0	71.5
72	Palomar Avenue	66.2	62.0	5.0	70.6
75	Palomar Avenue	66.2	62.0	5.0	70.0
76	Palomar Avenue	66.2	61.8	5.0	70.3
99	Palomar Avenue	64.1	-	-	-
149	Ethanac Road	63.7	-	-	-

Future Interior Noise Levels for TR 34118 (First Floor)

LOT	ROADWAY	NOISE IMPACTS AT FACADE	INTERIOR NOISE LEVEL FOR WINDOWS		REQUIRED INTERIOR NOISE REDUCTION
			OPEN ²	CLOSED ³	
1	Palomar Avenue	61.0	49.0	41.0	16.0
69	Palomar Avenue	60.8	48.8	40.8	15.8
72	Palomar Avenue	60.8	48.8	40.8	15.8
75	Palomar Avenue	60.8	48.8	40.8	15.8
76	Palomar Avenue	60.6	48.6	40.6	15.6
99	Palomar Avenue	63.6	51.6	43.6	18.6
149	Ethanac Road	63.6	51.6	43.6	18.6

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Future Interior Noise Levels for TR 34118 (Second Floor)

LOT	ROADWAY	NOISE IMPACTS AT FACADE	INTERIOR NOISE LEVEL FOR WINDOWS		REQUIRED INTERIOR NOISE REDUCTION
			OPEN ²	CLOSED ³	
1	Palomar Avenue	65.8	53.8	45.8	20.8
69	Palomar Avenue	65.3	53.3	45.3	20.3
72	Palomar Avenue	65.3	53.3	45.3	20.3
75	Palomar Avenue	65.3	53.3	45.3	20.3
76	Palomar Avenue	65.3	53.3	45.3	20.3
99	Palomar Avenue	63.6	51.6	43.6	18.6
149	Ethanac Road	63.6	51.6	43.6	18.6

Noise impacts to TR 34118 from the commercial properties in Planning Area 8 would include vehicle noises, delivery trucks, trash compactors, speakerphones, and air conditioning units. These impacts usually would occur during daytime hours and the noise impacts from the commercial center would be generally overshadowed by traffic noise from Ethanac Road. Noise impacts to TR 34118 associated with the operation of the commercial center in Planning Area 8 are therefore not considered significant.

Traffic noises from Ethanac Road could result in a potentially significant impact to the commercial properties in Planning Area 8. At the time a plot plan for Planning Area 8 is completed, a noise study shall be conducted and shall specify mitigation measures to reduce exterior and interior traffic-related noise impacts, if such mitigation is necessary.

Results of a noise analysis for TR 34600 (Planning Area 23A) indicate that future vehicle noise from Briggs Road, Malone Avenue, and SR-74 are the principal sources of community noise that would impact the residential units in Planning Area 23A. As shown in the below tables, portions of TR 34600 would experience unmitigated exterior and interior noise levels that would exceed Riverside County noise standards for transportation-related noise impacts.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Future Exterior Noise Levels for TR 34600

LOT	ROADWAY	UNMITIGATED	MITIGATED	BARRIER HEIGHT (IN FEET)	TOP OF BARRIER ELEVATION
73	Briggs Road	75.1	64.6	7.5	45.8
79	Briggs Road	75.1	64.3	7.5	46.1
2	Malone Avenue	67.9	63.4	5.0	39.5
143	Malone Avenue	66.9	62.7	5.0	29.8
149	Malone Avenue	66.8	60.9	5.0	33.9
155	Malone Avenue	66.9	61.0	5.0	35.1
156	Malone Avenue	67.2	60.6	5.0	37.3
162	Malone Avenue	67.2	60.4	5.0	38.7
103	State Route 74	58.6	-	-	-

Future Interior Noise Levels for TR 34600 (First Floor)

LOT	NOISE IMPACTS AT FACADE	INTERIOR NOISE LEVEL FOR WINDOWS		REQUIRED INTERIOR NOISE REDUCTION
		OPEN ²	CLOSED ³	
73	67.0	55.0	47.0	22.0
79	66.7	54.7	46.7	21.7
2	62.3	50.3	42.3	17.3
143	61.5	49.5	41.5	16.5
149	59.0	47.0	39.0	14.0
155	59.5	47.5	39.5	14.5
156	58.8	46.8	38.8	13.8
162	58.6	46.6	38.6	13.6
103	58.6	46.6	38.6	13.6

Future Interior Noise Levels for TR 34600 (Second Floor)

LOT	NOISE IMPACTS AT FAÇADE	INTERIOR NOISE LEVEL FOR WINDOWS		REQUIRED INTERIOR NOISE REDUCTION
		OPEN ²	CLOSED ³	
73	74.9	62.9	54.9	29.9
79	74.8	62.8	54.8	29.8
2	67.0	55.0	47.0	22.0
143	66.0	54.0	46.0	21.0
149	65.9	53.9	45.9	20.9
155	66.0	54.0	46.0	21.0
156	66.0	54.0	46.0	21.0
162	66.5	54.5	46.5	21.5
103	58.6	46.6	38.6	13.6

Noise impacts to TR 34600 from the commercial properties in Planning Area 23B would include vehicle noises, delivery trucks, trash compactors, speakerphones, and air conditioning units. These impacts generally occur during daytime hours and the noise impacts from the commercial center would be generally overshadowed by traffic noise from Ethanac Road. Noise impacts to TR 34600 associated with the operation of the commercial center in Planning Area 8 are not considered significant.

Traffic noises from Ethanac Road could result in a potentially significant impact to the commercial properties in Planning Area 23B. At the time a plot plan for Planning Area 23B is completed, a noise study shall be conducted and shall specify mitigation measures to reduce exterior and interior traffic-related noise impacts, if such mitigation is necessary.

Noise impacts from the community park in Planning Area 10 are not expected to be significant and are not anticipated to exceed the 65 dBA standard during daytime hours. Any increases over 65 dBA would be considered intermittent noise increases and are therefore not significant.

Mitigation:

Exterior Noise Mitigation (TR 34118):

A 5-foot high noise barrier shall be constructed along the portion of Lots 1 and 69-76 that face Palomar Avenue.

Interior Noise Mitigation (TR 34118):

Standard dual-glazed windows shall be provided for Lots 1, 69 to 76, and 98 to 100 facing Palomar Avenue and Lots 101, 106, 107, 112, 113, 118, 143, 148, 149, 154, and 155 facing Ethanac Road with a minimum Standard Transmission Class (STC) rating of 26.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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A “windows closed” condition shall be provided, which will require a means of mechanical ventilation, for Lots 1, 69 to 76, and 98 to 100 facing Palomar Avenue and Lots 101, 106, 107, 112, 113, 118, 143, 148, 149, 154, and 155 facing Ethanac Road.

Lots 1, 69 to 76, and 98 to 100 facing Palomar Avenue and Lots 101, 106, 107, 112, 113, 118, 143, 148, 149, 154, and 155 facing Ethanac Road shall be provided with weather-stripped solid core exterior doors and exterior wall/roof assemblies that should be free of cut-outs and openings.

Exterior Noise Mitigation (TR 34600):

A 5.0-foot high noise barrier shall be constructed along the portion of Lots 1 to 3, 143, 144, 149, 150, 155, 156, 161, 162, and 167 that face Malone Avenue.

A 7.5-foot high noise barrier shall be constructed along the portion of Lots 73,74, 79, and 80 that face Briggs Road.

Interior Noise Mitigation (TR 34600):

Upgraded dual-glazed windows shall be provided for Lots 73, 74, 79, and 80 facing Briggs Road.

Standard dual-glazed windows shall be provided for Lots 1 to 3, 143, 144, 149, 150, 155, 156, 161, 162, and 167 facing Malone Avenue and Lots 81 to 83, 86, 87, 90, 91, 94, 95, 98, 99, 102, 103, 105, 106, 139, 140, 141, and 142 facing SR-74 with a minimum Standard Transmission Class (STC) rating of 26.

A “windows closed” condition shall be provided, which will require a means of mechanical ventilation, for Lots 1 to 3, 143, 144, 149, 150, 155, 156, 161, 162, and 167 facing Malone Avenue, Lots 73, 74, 79, and 80 facing Briggs Road, and Lots 81 to 83, 86, 87, 90, 91, 94, 95, 98, 99, 102, 103, 105, 106, 139, 140, 141, and 142 facing SR-74.

Lots 1 to 3, 143, 144, 149, 150, 155, 156, 161, 162, and 167 facing Malone Avenue and Lots 73, 74, 79, and 80 facing Briggs Road shall be provided with weather-stripped solid core exterior doors and exterior wall/roof assemblies that should be free of cut-outs and openings.

A final noise study shall be prepared by an acoustical engineer and approved by the County Department of Industrial Hygiene prior to the issuance of building permits for residential units in TR 34118 and TR 34600. This report shall finalize the noise requirements based upon precise grading plans and actual building design specifications.

Prior to the issuance of residential building permits in TR 34118 and TR 34600, the County Department of Building and Safety shall review building plans to ensure that any required noise attenuation features are noted on building plans.

Prior to the issuance of residential occupancy permits, the County Department of Building and Safety shall verify that noise attenuation walls and/or berms recommended by the acoustical study for the applicable final map have been constructed.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Prior to the approval of Plot Plan for Specific Plan 260 Planning Area 8 and 23B, a final noise study shall be prepared by an acoustical engineer and approved by the County Department of Industrial Hygiene for commercial buildings in Specific Plan No. 260, Planning Areas 8 and 23B. The noise study shall consider proposed grades, building footprints and design specifications and shall specify noise reduction measures, if necessary, to reduce exterior noise levels to 75dBA.

Monitoring: Monitoring will occur by the County Departments of Industrial Hygiene and Building and Safety.

31. Other Noise

NA ☐ A ☐ B ☒ C ☐ D ☐

☐ ☐ ☐ ☒

Source: Specific Plan 260(a1) & EIR No. 329; Project Application Materials; County General Plan Program EIR Section 4.14 "Noise"

Findings of Fact: No other noise sources are known.

Mitigation: None required.

Monitoring: None required.

32. Noise Effects on or by the Project

a) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?

☐ ☐ ☒ ☐

b) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?

☐ ☒ ☐ ☐

c) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

☐ ☒ ☐ ☐

d) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

☐ ☐ ☒ ☐

Source: Specific Plan 260(a1) & EIR No. 329; Project Application Materials; County General Plan Program EIR Section 4.14 "Noise"; "Motte Meniffee Specific Plan 260 MR-27 (TM 34118) Preliminary Noise Study" Urban Crossroads; "Motte Meniffee Specific Plan 260 MR-56 (TM 34600) Preliminary Noise Study" Urban Crossroads.

Findings of Fact:

- a) The Project would not result in a permanent increase in ambient noise levels beyond increases disclosed in the County's General Plan EIR and in previously certified EIR No. 329. Ambient noise levels are primarily affected by traffic noise, and implementation of SP260(A2) would reduce the number of projected traffic trips by 668 ADT.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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- b) The Project would have a temporary, short-term significant noise impact during construction. The temporary noise increase during construction activities could expose people to noise levels in excess of standards established in the County General Plan Noise Element.

Operation of the commercial sites in Planning Areas 8 and 23B would result in noise level increases associated with delivery trucks, trash compactors, speakerphones, vehicle activity, and mechanical ventilation systems (air conditioning). According to noise analysis conducted for TR 34600 and TR 34118, noise generated by these commercial properties would be generally overshadowed by traffic noise from Ethanac Road. However, because the nature of uses at the commercial sites is not known at this time, the potential for operational noise impacts is considered a significant impact.

- c) As discussed under Item #30, some of the residential units in TR 34600 and TR 34118 would be subject to interior and exterior noise levels exceed Riverside County exterior and interior noise standards. Adherence to the mitigation measures described above would reduce such impacts to a level below significance.

Furthermore, traffic noise on Ethanac Road could subject the commercial properties in Planning Area 8 and 23B to noise levels above Riverside County's exterior standard of 75 dBA. At the time Plot Plans for Planning Area 8 and 23B are proposed, a final noise study shall be conducted and will specify mitigation measures to reduce levels to within acceptable limits.

- d) Construction and operation of the Project would not produce any groundborne vibrations or noise, as the uses proposed by the Project do not permit activities that may produce groundborne vibrations or noise.

Mitigation:

Prior to the approval of building permits in Planning Areas 8 and 23B, the County shall check building plans to verify that the line-of-sight (view) from adjacent residential yards (exterior usable open space) to exposed roof and mechanical ventilation systems of proposed commercial structures is blocked.

Uses in Planning Areas 8 and 23B shall be conditioned to limit delivery of goods in the nighttime hours between 10 p.m. and 7 a.m. to decrease facility related noise during noise sensitive hours. Delivery truck noise shall be reduced by minimizing engine idling time during deliveries. Delivery truck drivers shall adhere to California Vehicle Code Idling Standards as presented in Title 13 California Code of Regulations § 2485. In order to promote compliance with § 2485, the clear and visible signs shall be posted in all loading dock areas describing idling standards. The locations of on-site idling warning signs shall be indicated on construction and building plans. Prior to the issuance of Use and Occupancy Permits, the Riverside County Building Inspector shall inspect the Project premises to confirm that the "idling warning" signs have been installed.

During all excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from adjacent, occupied residential homes.

The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and adjacent, occupied residential homes.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Construction activities shall comply with Riverside County Ordinance No. 457 relating to construction noise.

The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass noise-sensitive land uses or residential dwellings.

Monitoring: Riverside County's Building and Safety Department will monitor compliance with noise mitigation requirements.

POPULATION AND HOUSING Would the Project

33. Housing

a) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

☐ ☐ ☐ ☒

b) Create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?

☐ ☐ ☐ ☒

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

☐ ☐ ☐ ☒

d) Affect a County Redevelopment Project Area?

☐ ☐ ☐ ☒

e) Cumulatively exceed official regional or local population projections?

☐ ☐ ☒ ☐

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

☐ ☐ ☒ ☐

Source: Project Application Materials; Riverside County GIS; County General Plan Program EIR Section 4.3 "Housing"

Findings of Fact:

- The proposed project site is vacant; therefore, the Project would not displace existing housing or necessitate the construction of replacement housing elsewhere.
- As the proposed project area is part of the Menifee North master-planned community, consisting of residential, recreation and employment-generating land uses. As such, the Project will not create a substantial need for additional housing.
- The proposed project site is vacant; therefore, the Project would not displace any persons and/or necessitate the construction of replacement housing elsewhere.
- The Project is not located in a County Redevelopment Project Area.
- e & f) As a result of SP 260(A2), the total Specific Plan acreage would be reduced from 1,636.2 acres to 1,445.1 acres. Residential areas would increase from 585.3 acres and 2,390 dwelling units to 623.1 acres and 2,624 dwelling units. Non-residential acreage would decrease from 1,050.9

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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acres to 822.0 acres. The increase of 234 dwelling units would result in a population increase of 704 persons (using a multiplication factor of 3.01 persons per household). This population increase would not result in indirect population growth nor exceed cumulative projections of regional or local population projections because development would occur within the development density ranges specified for the site by the County's Harvest Valley/Winchester Area Plan.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

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

34. Fire Services

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Source: Specific Plan 260 (A1) & EIR 329; County General Plan Safety Element; County General Plan Program EIR Section 4.15 "Public Services"

Findings of Fact: The proposed Project is within an acceptable response distance/travel time from a County fire station located at 25730 Sultanas Road. The station is staffed with two full-time fire firefighters, an emergency paramedic and a volunteer company. The firefighters at this station are equipped with a standard County fire engine. Additionally, a fire station staffed with four firefighters and a standard county fire engine is located southwest of the project site at 27860 Bradley Road. Development of the Project would not result in the need to construct a new fire station or to physically alter the existing fire station facility. The Project applicant would be required to comply with the provisions of the County Development Impact Fee (DIF) Ordinance (Ord. No. 659), which requires a fee payment that the County applies to the funding of public facilities, including fire protection facilities. The Project also would be required to provide water mains to the site capable of providing adequate pressure for fire flow, and to install hydrants onsite at the locations approved by the County Fire Department.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

35. Sheriff Services

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Source: Specific Plan 260(A1) & EIR 329; County General Plan Safety Element; County General Plan Program EIR Section 4.15 "Public Services"

Findings of Fact: The proposed Project would result in the increased population in the proposed area of approximately 704 persons. Based on a goal to provide one deputy for each 1,000 persons, the Project would generate the need for less than one (1) new deputy. Development of the Project would not result in the need to construct a new sheriff's station or to physically alter an existing station. The Project applicant would be required to comply with the provisions of the County Development Impact

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Fee (DIF) Ordinance (Ord. No. 659), which requires a fee payment that the County applies to the funding of public facilities, including sheriff's facilities.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

36. Schools

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Source: Specific Plan 260(A1) & EIR No. 329; Romoland School District; County General Plan Program EIR Section 4.15 "Public Services"

Findings of Fact: The proposed Project is located within the Romoland Unified School District and Perris Unified High School District. The addition of 234 residential homes in the Menifee North Specific Plan area would incrementally increase the demand placed on public schools. Prior to the issuance of residential building permits, the proposed Project is required to pay the required school fees in accordance with the State of California SB50. No school sites are proposed as part in the SP 260(A2) amendment area.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

37. Libraries

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Source: Specific Plan 260 & EIR No. 329, County General Plan Program EIR Section 4.15 "Public Services"

Findings of Fact: The proposed Project would increase the region's population by approximately 704 persons, adding an increased demand for public libraries and services. Based on the County of Riverside's minimum of 1.2 book titles per capita and 0.5 square feet of library space per capita, the proposed Project would require 352 square feet of new library space and 844 new book titles. Prior to the issuance of building permits, the applicant is required to comply with the provisions of the County Development Impact Fee (DIF) Ordinance (Ord. No. 659), which requires a fee payment that the County applies to the funding of public facilities, including library facilities. The Project would not result in the need to construct a new library or physically alter an existing library.

Mitigation: No mitigation is required.

Monitoring: No mitigation is required.

38. Health Services

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Source: Specific Plan 260(A1) & EIR No. 329; County General Plan Program EIR Section 4.15 "Public Services"

Findings of Fact: The proposed Project would result in a population increase and create a greater demand for health care services in the region. Approximately two miles south of the proposed Project

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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site is the Meniffee Valley Medical Center, which is an 84-bed, full-service acute care hospital. The Project would not result in the need to construct a new public health facility or physically alter an existing public health facility. The Project applicant would be required to comply with the provisions of the County Development Impact Fee (DIF) Ordinance (Ord. No. 659), which requires a fee payment that the County applies to the funding of public facilities, including public health facilities.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

RECREATION

39. Parks and Recreation

a) Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b) Would the Project include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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c) Is the Project located within a C.S.A. or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Source: Specific Plan 260(A1) & EIR No. 329; Riverside County GIS; County Ord. No. 460, Section 10.35; County Ord. No. 659; County General Plan Program EIR Section 4.14 "Parks and Recreation"

Findings of Fact:

- The proposed Project includes a park site in Planning Area 10 and a community center/park in Planning Area 20. The impacts of constructing those facilities are evaluated throughout this Environmental Assessment. The Project would not require the construction or expansion of any recreational facility outside of the boundaries of SP 260(A2).
- The proposed Project would not include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of such facility would occur or be accelerated.
- Based on Riverside County Ordinance No. 460, Section 10.35, and State Quimby Act requirements, 5.0 acres of parkland are required for every 1,000 residents. SP 260(A2) would add 234 residential units, generating 704 new residents and the need for 3.52 acres of additional park land. SP 260(A2) proposes to add 10.5 acres of parkland to the boundary of SP 260, which exceeds the Quimby Act requirement.

Mitigation: No mitigation is required

Monitoring: No monitoring is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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40. Recreational Trails

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Source: Riv. Co. 800 Scale Equestrian Trail Maps; Open Space and Conservation Map for Western County trail alignments; County General Plan Figure C-5 "Bikeway & Trails Plan"; Harvest Valley/Winchester Specific Plan; Verbal Communication with County Parks and Open Space District (Brewer, August 2006)

Findings of Fact: According to the County's bikeways and trail plan, a regional trail is planned along Briggs Road. The County Parks and Open Space District plans for the construction of this trail along the east side of Briggs Road. Planning Areas 20, 23A (TR 34600) and 23B occur along the west side of Briggs Road and, therefore, the Project would have no effect on the placement of a Regional Trail along the west side of the right-of-way.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

TRANSPORTATION/TRAFFIC Would the Project

41. Circulation

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

b) Result in inadequate parking capacity?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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c) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated road or highways?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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d) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Alter waterborne, rail or air traffic?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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g) Cause an effect upon, or a need for new or altered maintenance of roads?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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h) Cause an effect upon circulation during the Project's construction?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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i) Result in inadequate emergency access or access to nearby uses?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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j) Conflict with adopted policies supporting alternative transportation (e.g. bus turnouts, bicycle racks)?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Source: County General Plan Circulation Element; Harvest Valley/Winchester Area Plan; County General Plan Program EIR Section 4.16 "Transportation and Circulation"; "Traffic Analysis: Tentative

Tract Map No. 34600" by Albert A. Webb Associates; Traffic Analysis: Tentative Tract Map No. 34118" by Albert A. Webb Associates.

Findings of Fact:

- a) Applying trip generation factors from the ITE Trip Generation Manual, the number of projected average daily trips (ADT) would be reduced by 668 ADT with implementation of SP 260(A2). Therefore, impacts associated with SP 260(A2) would not be substantial and would be less than the number of ADT previously projected to be generated from the Menifee North Specific Plan. Project-specific traffic studies were prepared for TR 34118 and TR 34600. For TR 34600 (Planning Area 23A), 1,550 daily trip-ends would be generated at build-out, including 122 trip-ends during the peak AM hour and 164 trip-ends during the peak PM hour. For TR 34118 (Planning Areas 7A and 7B), 1,617 daily trip-ends would be generated at build-out, including 127 trip-ends during the peak AM hour and 171 trip-ends during the peak PM hour. These trips would cause an increase in traffic on local and regional roadways; thus, development of the Project without any mitigation improvements would be a significant impact.

TR 34118 Trip Generation

Land Use	Qty	Unit	AM Peak Hour			PM Peak Hour			Daily
			Total	In	Out	Total	In	Out	
Single Family Detached	169	DU	127	32	95	171	108	63	1,617
TOTAL			127	32	95	171	108	63	1,617

DU = Dwelling Units

TR 34600 Trip Generation

Land Use	Unit	Qty	AM Peak Hour			PM Peak Hour			Daily
			Total	In	Out	Total	In	Out	
Single Family Detached	DU	162	122	31	91	164	104	60	1,550
TOTAL			122	31	91	164	104	60	1,550

- b) TR 34600 and TR 34118 designate an adequate number of residential parking spaces for Planning Areas 7A, 7B and 23A in accordance with County parking requirements. Other planning areas in the SP 260(A2) area, would be required to designate parking spaces on implementing applications such as tract maps and plot plans to demonstrate compliance with Riverside County Ordinance No. 348, which establishes standards for adequate parking capacity.
- c) According to the Riverside County General Plan, the Countywide Level of Service (LOS) target is LOS "C" along all County-maintained roads and conventional state highways and LOS "D" in Community Development areas at intersections of any combination of Secondary Highways, Major Highways, Arterials, Urban Arterials, Expressways, conventional state highways, or freeway ramp intersections.

For TR 34600 (Planning Area 23A), 1,550 daily trip-ends would be generated at build-out, including 122 trip-ends during the peak AM hour and 164 trip-ends during the peak PM hour. For

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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cumulative plus project traffic conditions without offsite improvements, traffic from TR 34600 would contribute to an unacceptable LOS at seven intersections. For TR 34118 (Planning Areas 7A and 7B), 1,617 daily trip-ends would be generated at build-out, including 127 trip-ends during the peak AM hour and 171 trip-ends during the peak PM hour. For cumulative plus project conditions, TR 34118 would contribute to an unacceptable LOS at six nearby intersections. Traffic improvements and mitigation would be necessary to achieve acceptable LOS levels.

- d) The proposed Project does not have an air travel component; therefore, implementation of the proposed Project would not change air traffic patterns.
- e) The proposed Project would not alter waterborne, rail, or air traffic because the proposed Project would not utilize waterborne, rail, or air traffic.
- f) Implementation of the proposed Project will not substantially increase or introduce any hazardous design features such as sharp curves or dangerous intersections to the project site or vicinity. The proposed Project is consistent with the site's SP zoning and County's General Plan land use designations and would not introduce incompatible uses to the project vicinity.
- g) The cumulative effects of Project implementation would create a need for new or altered maintenance of roads. Traffic signals or signage along County-maintained roads would be needed at multiple intersections (see mitigation). Internal to the site, the Project's drive isles and parking areas would be privately maintained by a HOA and require no additional County maintenance.
- h) Construction of the proposed Project may temporarily cause an effect on traffic during construction if construction vehicles traveling to and from the site make uncontrolled movements into the site from abutting roadways. Uncontrolled movements may conflict with or interrupt through-traffic. Mitigation is proposed to minimize construction traffic during peak hours and to control traffic flows into the site during construction.
- i) The Project would not prevent or limit emergency access to nearby uses. TR 34600 and TR 34118 have been reviewed by the County Fire Department to ensure adequate access for emergency vehicles.
- j) The proposed Project would not conflict with adopted policies supporting alternative transportation. A regional trail is designated along the eastern side of Briggs Road, which is not adjacent to any area of the SP 260 (A2) proposed areas of change.

Mitigation:

The Project shall participate in the funding of regional transportation improvements through payment of TUMF fees at the time of building permit issuance.

Prior to the commencement of construction, a traffic management plan shall be developed by the construction supervisor to minimize traffic flow interference from construction activities. Construction traffic shall be scheduled to not interfere with peak hour traffic on adjacent roadways and to minimize obstruction of through traffic lanes. If necessary, a flag person shall be retained by the construction supervisor to control construction traffic into and out of the site, and to maintain safety on adjacent roadways during construction.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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The Project shall participate in the phased construction of off-site traffic signals through payment of traffic signal mitigation fees. Prior to the issuance of the first building permit, the County Transportation Department shall verify that a traffic signal has been installed or is assured to be installed at the following intersections:

- Sherman Road and SR-74
- I-215 northbound ramp and SR-74
- Menifee Road and Watson Road
- Antelope Road and SR-74
- Sherman Road North and SR-74

Signing/stripping shall be implemented in conjunction with construction and shown on detailed construction plans for all tentative maps, final maps and plot plans.

In conjunction with adjacent development activity in TR 34600, the Project shall construct partial width improvements on the westerly side of Briggs Road at its ultimate cross-section as a major highway (118' ROW).

In conjunction with adjacent development activity in TR 34600, the Project shall construct partial width improvements on the easterly side of Malone Avenue at its ultimate cross-section as a local street (60' ROW).

Sight distance at the TR 34600 driveway intersection with Briggs Road shall be reviewed with respect to standard County of Riverside sight distance standards at the time of preparation of final grading, landscape, and street improvement plans.

In conjunction with adjacent development activity in TR 34600, the Project shall install a two-way stop sign at the intersection of the TR 34600 driveway and Briggs Road to include the following geometrics:

- Northbound: One shared left-turn, through, and a right turn lane.
- Southbound: One shared left-turn, through, and a right turn lane.
- Eastbound: One shared left-turn, through, and a right turn lane.
- Westbound: One shared left-turn, through, and a right turn lane.

In conjunction with adjacent development activity in TR 34118, the Project shall construct partial width improvements on the westerly side of Palomar Road at its ultimate cross-section as an Industrial Collector Street (60' ROW).

In conjunction with adjacent development activity in TR 34118, the Project shall install a two-way stop sign at the intersection of the TR 34118 driveways and Palomar Road to include the following geometrics:

- Northbound: One shared left-turn and through lane.
- Southbound: One shared through and right-turn lane.
- Eastbound: One shared left-turn and right-turn lane.
- Westbound: Not applicable.

Monitoring: Monitoring shall be accomplished through the Riverside County permitting process and shall be overseen by County of Riverside Transportation and Land Management Agency, Transportation Department.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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42. Bike Trails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Source: County General Plan Figure C-5 "Bikeways and Trail Plan"; Project Application Materials

Findings of Fact: According to the County's bikeways and trail plan, a regional trail is planned along Briggs Road. The County Parks and Open Space District plans for the construction of this trail along the east side of Briggs Road. Planning Areas 20, 23A (TR 34600) and 23B occur along the west side of Briggs Road and, therefore, the Project would have no effect on the placement of a Regional Trail along the west side of the right-of-way.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

UTILITY AND SERVICE SYSTEMS Would the Project

43. Water	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a) Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Source: County General Plan Program EIR Section 4.17 "Water Resources"; Riverside County Department of Environmental Health; Project Application Materials; Eastern Municipal Water District's 2005 Urban Water Management Plan

Findings of Fact:

- a) SP 260(A2) includes a backbone water improvement plan for the 1627', 1693', 1811' and 2033' pressure zones. Proposed water lines would be located in improved public rights-of-way or in areas that have had prior CEQA review. No additional environmental impacts would occur as the result of water facility construction **VERIFY**.
- b) SP 260(A2) would result in the Specific Plan acreage being reduced from 1,636.2 acres to 1,445.1 acres. Residential areas would increase from 585.3 acres and 2,390 dwelling units to 623.1 acres and 2,624 dwelling units. Non-residential acreage would decrease from 1,050.9 acres to 822.0 acres, mostly reflecting the removal of industrial land from the Specific Plan boundary in Planning Area 10. The development of the Menifee North Specific Plan was anticipated by EMWD in their Urban Water Management Plan, and the proposed land use revisions would not result in the need for additional water supplies or entitlements.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
44. Sewer	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a) Require or result in the construction of new wastewater treatment facilities, including septic systems, or expansion of existing facilities, the construction of which would cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a determination by the wastewater treatment provider which serves or may service the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Source: County General Plan Program EIR Section 4.15 "Public Services"; County of Riverside Department of Environmental Health Review

Findings of Fact:

- a) SP 260(A2) includes a backbone sewer improvement plan for Assessment Districts 5 and 7. Proposed sewer lines would be located in improved public rights-of-way or in areas that have had prior CEQA review. No additional environmental impacts would occur as the result of sewer facility construction **VERIFY**.
- b) SP 260(A2) would result in the Specific Plan acreage being reduced from 1,636.2 acres to 1,445.1 acres. Residential areas would increase from 585.3 acres and 2,390 dwelling units to 623.1 acres and 2,624 dwelling units. Non-residential acreage would decrease from 1,050.9 acres to 822.0 Acres, mostly reflecting the removal of industrial land from the Specific Plan boundary in Planning Area 10. The development of the Menifee North Specific Plan was anticipated by EMWD, and the proposed land use revisions would not result in the need for additional wastewater treatment capacity.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

45. Solid Waste	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Is the Project served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Comply with federal, state, and local statutes and regulations related to solid wastes (including the CIWMP (County Integrated Waste Management Plan)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Source: County General Plan Program EIR Section 4.15 "Public Services"; Letter from Riverside County Waste Management

Findings of Fact:

- a) Waste Management of the Inland Empire is currently the municipal solid waste disposal service for the Project area. Accordingly, the waste management company would deliver the Project's solid waste to Perris Valley Transfer Station. The Project would generate approximately 0.41 tons per

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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capita per year as estimated by the California Integrated Waste Management Board, thereby cumulatively impacting the capacity of existing landfills.

- b) The California Integrated Waste Management Act (AB 939) was approved in 1989 due to the trend of an increased waste stream and decrease in landfill capacity. As a result of AB 939, the CIWMB was established and a reporting program was instituted. AB 939 mandates a reduction of waste being disposed. The County Solid Waste Management Plan includes programs to reduce the quantities of waste being sent to landfills. Riverside County requires that waste haulers in the County implement recycling collection. The Project would be required to work with its refuse hauler to proceed with collection of recyclable products on a regular schedule.

Mitigation:

The refuse hauler for the Project site shall be advised of the efforts the developer will be pursuing relating to recycling and waste reduction (i.e., curbside recycling, in accordance with County Resolution No. 90-688.) The use of such programs shall be encouraged by the developer through information (e.g., location, materials accepted, etc.) provided in sales literature.

The Project developer shall pursue and implement any available and feasible source reduction programs for the disposal of construction materials to the satisfaction of the Riverside County Waste Management Department. In addition, the Project applicant shall comply with the State Model Ordinance, which requires adequate areas for the collection and loading of recyclable materials to be provided within detached, single family residential areas where solid waste is collected and loaded in a location which serves five or more units.

Monitoring: The Riverside County Waste Management Department shall ensure that waste reduction is accomplished.

46. Utilities

Would the Project impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities; the construction of which could cause significant environmental effects?

a) Electricity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Natural gas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Communications systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Storm water drainage?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Street lighting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Maintenance of public facilities, including roads?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Other governmental services?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Conflict with adopted energy conservation plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Source: Specific Plan 260 & EIR No. 329, Review of Project materials; correspondence with the Public Service Providers

Findings of Fact:

- a, b & c) The proposed Project is within the service boundaries of Southern California Edison for electricity service, Southern California Gas Co. for gas service and Verizon for communication

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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system service. These utilities are available adjacent to the site and connections to the service lines would not require physical impacts beyond the boundaries of the Project's disturbance area footprint or roadway rights-of-way.

- d) SP 260(A2) features a Master Drainage Plan, which is designed to accommodate on-site and tributary flows. The Project's drainage plan has been designed to be compatible with the Romoland Master Drainage Plan (MDP). The Project will not be responsible for the installation of any off-site drainage improvements **VERIFY**.
- e) Street lighting installed by the Project would not cause physical impacts beyond the boundaries of the Project's disturbance area footprint or adjacent roadway rights-of-way.
- f) The Project would construct new roads requiring maintenance. Frontage improvements are proposed by TR 34600 to Briggs Road and Malone Avenue and frontage improvements are proposed by TR 34118 to Palomar Road. Maintenance of these roadways would not cause physical impacts beyond the boundaries of the Project's disturbance area footprint or adjacent roadway rights-of-way.
- g) No other known government services would be adversely affected by development of the Project.
- h) The proposed Project would not be regarded as an energy-intensive land use and as such, would not result in a conflict with adopted energy conservation plans. Development would be required to comply with Title 24 of the California Code of Regulations regarding energy efficiency.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

Monitoring: Riverside County's building permit process will ensure that compliance with Titles 20 and 24 is accomplished.

MANDATORY FINDINGS OF SIGNIFICANCE

47. Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare, or endangered plant or animal to eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Sources: County General Plan Figure OS-4 "Western Riverside County Vegetation;" Riverside County MSHCP GIS Database; USGS Maps; MSHCP, General Plan Program EIR Section 4.6, "Biological Resources"; County General Plan Figure OS-7 "Historic Resources"; General Plan Program EIR Section 4.7.1 "Cultural Resources"; Specific Plan 260(A1) and EIR 329; Specific Plan 260 and EIR 329 Technical Appendices; County General Plan Figure OS-6 "Archaeological Sensitivity"

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Findings of Fact: According to an archaeological field study and records search conducted as part of EIR 329, no prehistoric or historic cultural resources are located on the Project site; therefore, the Project would not eliminate any examples of the major periods of California history or prehistory.

The Project site is not located within the Western Riverside County MSHCP Criteria Area, and as such, is not identified for natural open space preservation. The Project biologist determined that that TR 34600 and TR 34118 site are in active agricultural use or are otherwise disturbed. No fish, sensitive plants or wildlife are located on the site. Although no signs of burrowing owl were detected on the site during biological field surveys, the species is migratory and as the potential to locate onto the site prior to development of the Project. Within 30 days prior to issuance of a grading permit, a pre-construction presence/absence survey for the burrowing owl is required and if it is determined that that Project site is occupied by the burrowing owl, take of active nests will be avoided and active relocation outside of the nesting season (March 1 though August 15) by a qualified biologist is be required.

48. Does the Project have the potential to achieve short-term environmental goals, to the disadvantage of long-term environmental goals? (A short-term impact on the environment is one that occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Source: Project Application Materials

Findings of Fact: In the short-term, the Project would remove the existing on-site agricultural activities and construction activities would occur to develop the SP 260(A2) area with residential, recreational, commercial and business park uses. Removal of the agricultural operation would not achieve any short-term environmental goals and there would be no detriments or disadvantages of achieving long-term environmental goals.

49. Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of an individual Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects as defined in California Code of Regulations, Section 15130)?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Source: Specific Plan 260 (A1) & EIR No. 329; Above Checklist; Project Application Materials

Findings of Fact: Construction of the Project would commit the Project site to residential, recreational, commercial and business park land uses for the foreseeable future. The analysis in this Checklist indicates that the Project would significantly impact the environment in regards to air quality, biological resources (burrowing owl), cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, noise, and transportation/traffic. All impacts of the Project can be mitigated to below a level of significance. Impacts in all of these areas have the potential to accumulate with

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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similar impacts on other sites in the area and result in cumulatively considerable effects, particularly in the areas of air quality, water quality, noise and transportation/traffic. The mitigation measures presented in this Checklist would reduce the Project's cumulative impacts to below levels of significance. Moreover, because the Project is consistent with the County's General Plan, the Project would not result in any cumulative impact beyond that disclosed by the County's General Plan EIR (EIR No. 441; SCH No. 2002051143).

50. Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

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Source: Above Checklist; Project Application Materials

Findings of Fact: The analysis in this Checklist indicates that the Project would significantly impact the environment in regards to air quality, biological resources (burrowing owl), cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality, noise, and transportation/traffic. Of these impacts, humans could be potentially affected by noise, air pollutants, and environmental hazards. Sensitive human receptors include residential homes located within one (1) mile of the Project site that could be impacted by air quality and hazardous materials. Mitigation measures are presented in this EA Checklist to reduce impacts to below a level of significance.

VI. EARLIER ANALYSES

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. California Code of Regulations, Section 15063 (c) (3) (D). In this case, a brief discussion should identify the following:

Earlier Analyses Used, if any:

Menifee North Specific Plan No. 260 EIR 329; Certified 1994

Riverside County Integrated Project General Plan Program EIR; Certified October 7, 2003

Location Where Earlier Analyses, if used, are available for review:

County of Riverside
Planning Department
4080 Lemon Street, 9th Floor
Riverside, CA 92502

VII. REFERENCES

The following documents were referred to as information sources during the preparation of this document.

Cited As:

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Aerial Photograph	Aerial Photograph of the Project site and ½-mile radius, flown in 2005				
ALUC	Riverside County Airport Land Use Commission, March Air Reserve Base Area of Influence Map				
Conditions of Approval	Draft Conditions of Approval for TR 34118 and TR 34600, as stated in the Riverside County Planning Department Land Management System on June 6, 2006.				
County General Plan	Riverside County Integrated Project, County of Riverside General Plan, Final Integrated Version. Adopted October 7, 2003				
County General Plan Program EIR	Final Program Environmental Impact Report for the Riverside County General Plan, certified by the Riverside County Board of Supervisors on October 7, 2003 (SCH No. 2002051143)				
Brewer 2006	Verbal Communication between M. Brewer and G. Scott in August 2006 regarding the alignment of a future Regional Trail along Briggs Road				
EnGEN Corporation, TR 34118	Geotechnical/Geological Engineering Study for APN's 327-320-001, -007 and -010, prepared by EnGEN Corporation, dated July 25, 2005.				
EnGEN Corporation, TR 34600	Geotechnical/Geological Engineering Study for APN's 329-110-003, -014, -024, and -026, prepared by EnGEN Corporation, dated August 8, 2005.				
FMMP	California Department of Conservation, Farmland Mapping and Monitoring Program, 2005				
GIS Database	Riverside County Geographic Information Systems database				
Harvest Valley/ Winchester Area Plan	Harvest Valley/Winchester Area Plan, County of Riverside Planning Department Riverside County Integrated Plan, Final Version. Adopted October 7, 2003				
Hunsaker & Assoc, TR34600 WQMP	Water Quality Management Plan for Tentative Tract Map No. 34600, prepared by Hunsaker & Associates, dated April 14, 2006.				
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan, Final Version, Adopted June 17, 2003				
NATEC International, TR34118	Phase One Environmental Site Assessment prepared for Northwest Corner of Briggs and Highway 74 (Tract 34118), prepared by NATEC International, dated March 15, 2005				
NATEC International, TR34600	Phase One Environmental Site Assessment prepared for Tract 34118 (27 Acres) and Motte Country Plaza, prepared by NATEC International, dated March 31, 2005				
Ord. No. 460	Riverside County Ordinance No. 460 – Regulating the Division of Land				
Ord. No. 625	Riverside County Ordinance No. 625 – Right To Farm				
Ord. No. 655	Riverside County Ordinance No. 655 – Regulating Light Pollution.				

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Ord. No. 659	Riverside County Ordinance No. 659 – Development Mitigation Fees				
Principe and Associates, TR34118	Burrowing Owl Habitat Assessment for Tentative Tract Map 34118, prepared by Principe and Associate, dated September 14, 2005.				
Principe and Associates, TR34600	MSHCP Consistency Analysis and Burrowing Owl Habitat Assessment for Tentative Tract Map 34600, prepared by Principe and Associates, dated June 8, 2006.				
Project Application Materials	Proposed Specific Plan No. 260, Amendment No. 2; Tentative Tract Map No. 34600; Tentative Tract Map No. 34118 and Change of Zone No. 07195, on file at the Riverside County Planning Department on June 9, 2006.				
SCAQMD	South Coast Air Quality Management District. CEQA Air Quality Handbook. April 1993, with November 1993 Update				
Rail Facilities, Available Water; Oil and Natural Gas Pipelines Inventory Data	<i>Rail Facilities, Available Water; Oil and Natural Gas Pipelines Inventory Data</i> . Riverside Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP), October 5, 2004				
SP 260	Menifee North Specific Plan, adopted 1994				
SP 260(A1)	Menifee North Specific Plan, Amendment No 1.				
SP 260(A2)	Proposed Menifee North Specific Plan, Amendment No 2, prepared by T&B Planning, dated June 1, 2006.				
UBC	State of California Uniform Building Code				
USDA	U.S. Department of Agriculture, Soil Conservation Service. Soil Survey, Western Riverside Area, California. November 1971				
Webb & Associates, TR34118	Traffic Report for Tentative Tract Map No. 34118, prepared by Albert A. Web & Associates				
Webb & Associates, TR34118 WQMP	Water Quality Management Plan for Tentative Tract Map No. 34118, prepared by Albert A. Webb & Associates, dated February 2006.				
Webb & Associates, Tract 34600	Traffic Report for Tentative Tract Map No. 34600, prepared by Albert A. Web & Associates				

VIII. LIST OF INITIAL STUDY PREPARERS

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Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Caitlin Noris, Staff Planner

APPENDIX



C

MR 56

Northwest Corner of Highway 74 and Briggs Road
Sun City, CA 92585

Inquiry Number: 4891134.2s
March 27, 2017

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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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NORTHWEST CORNER OF HIGHWAY 74 AND BRIGGS ROAD
SUN CITY, CA 92585

COORDINATES

Latitude (North):	33.7442290 - 33° 44' 39.22"
Longitude (West):	117.1385910 - 117° 8' 18.92"
Universal Transverse Mercator:	Zone 11
UTM X (Meters):	487162.9
UTM Y (Meters):	3733612.2
Elevation:	1523 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5641314 ROMOLAND, CA
Version Date:	2012
Northeast Map:	5640936 LAKEVIEW, CA
Version Date:	2012
Southeast Map:	5640944 WINCHESTER, CA
Version Date:	2012
Northwest Map:	5641330 PERRIS, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603, 20140530
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
NORTHWEST CORNER OF HIGHWAY 74 AND BRIGGS ROAD
SUN CITY, CA 92585

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	HIGH SCHOOL NO. 3	BRIGGS ROAD/PINACATE	ENVIROSTOR, SCH	Higher	94, 0.018, ESE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

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

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

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

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

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

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List

EXECUTIVE SUMMARY

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST..... Geotracker's Leaking Underground Fuel Tank Report

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

SLIC..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

UST..... Active UST Facilities

AST..... Aboveground Petroleum Storage Tank Facilities

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

VCP..... Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfields 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

ODI..... Open Dump Inventory

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

EXECUTIVE SUMMARY

HIST Cal-Sites..... Historical Calsites Database
CDL..... Clandestine Drug Labs
Toxic Pits..... Toxic Pits Cleanup Act Sites
US CDL..... National Clandestine Laboratory Register

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

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated
FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System
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

EXECUTIVE SUMMARY

UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File
FINDS.....	Facility Index System/Facility Registry System
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
UXO.....	Unexploded Ordnance Sites
CA BOND EXP. PLAN.....	Bond Expenditure Plan
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
WASTEWATER PITS.....	Oil Wastewater Pits Listing
WDS.....	Waste Discharge System
WIP.....	Well Investigation Program Case List
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
ABANDONED MINES.....	Abandoned Mines
ECHO.....	Enforcement & Compliance History Information

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historic Gas Stations
EDR Hist Cleaner.....	EDR Exclusive Historic Dry 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

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 10/31/2016 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>HIGH SCHOOL NO. 3</i> Facility Id: 33010072 Status: No Further Action	<i>BRIGGS ROAD/PINACATE</i>	<i>ESE 0 - 1/8 (0.018 mi.)</i>	<i>1</i>	<i>8</i>

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

SCH: 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.

A review of the SCH list, as provided by EDR, and dated 10/31/2016 has revealed that there is 1 SCH site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>HIGH SCHOOL NO. 3</i> Facility Id: 33010072 Status: No Further Action	<i>BRIGGS ROAD/PINACATE</i>	<i>ESE 0 - 1/8 (0.018 mi.)</i>	<i>1</i>	<i>8</i>

EXECUTIVE SUMMARY

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

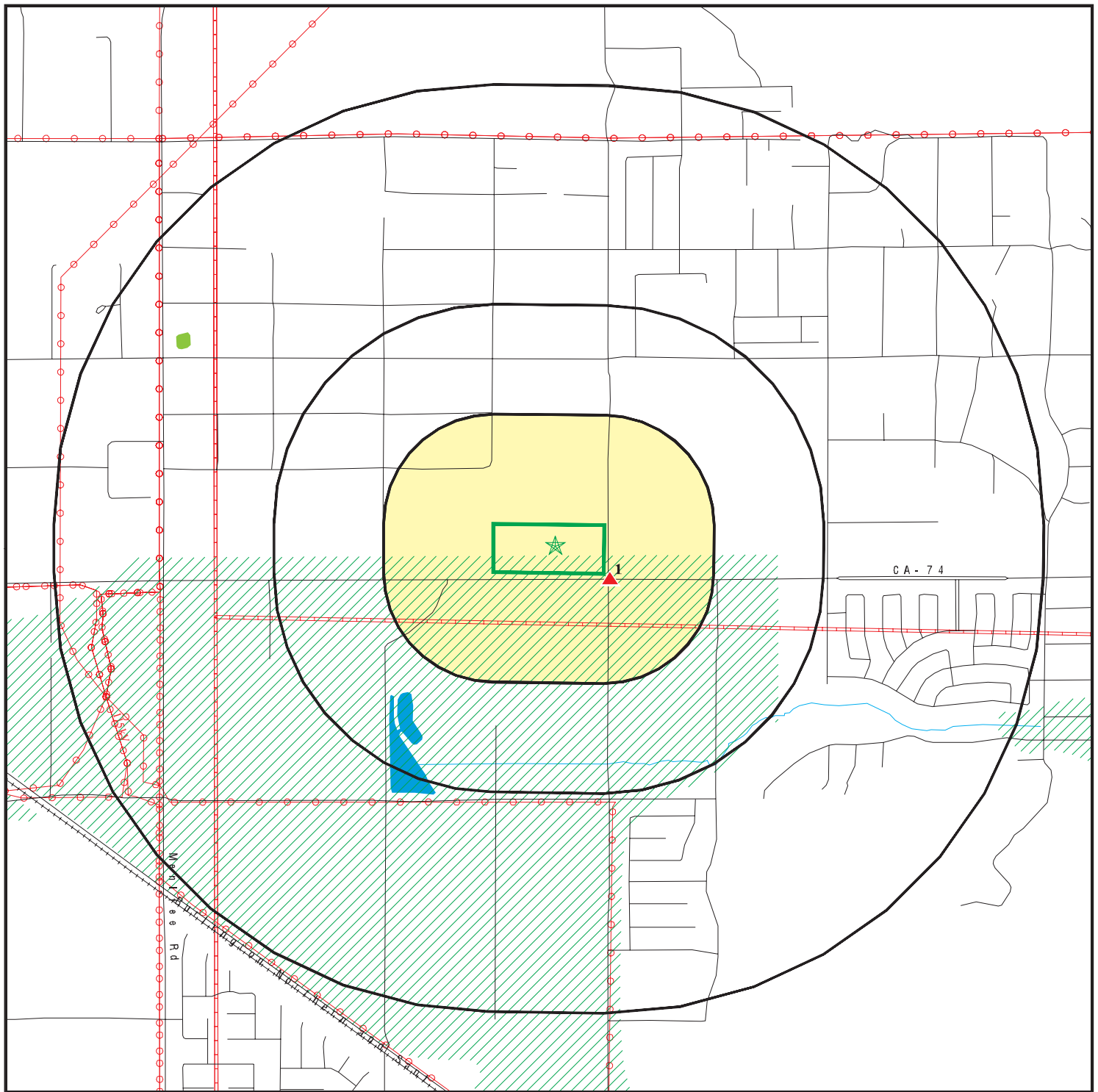
Site Name







Database(s)








CDL


CDL

OVERVIEW MAP - 4891134.2S



-  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

-  Indian Reservations BIA
-  Power transmission lines
-  Pipelines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands

-  Areas of Concern

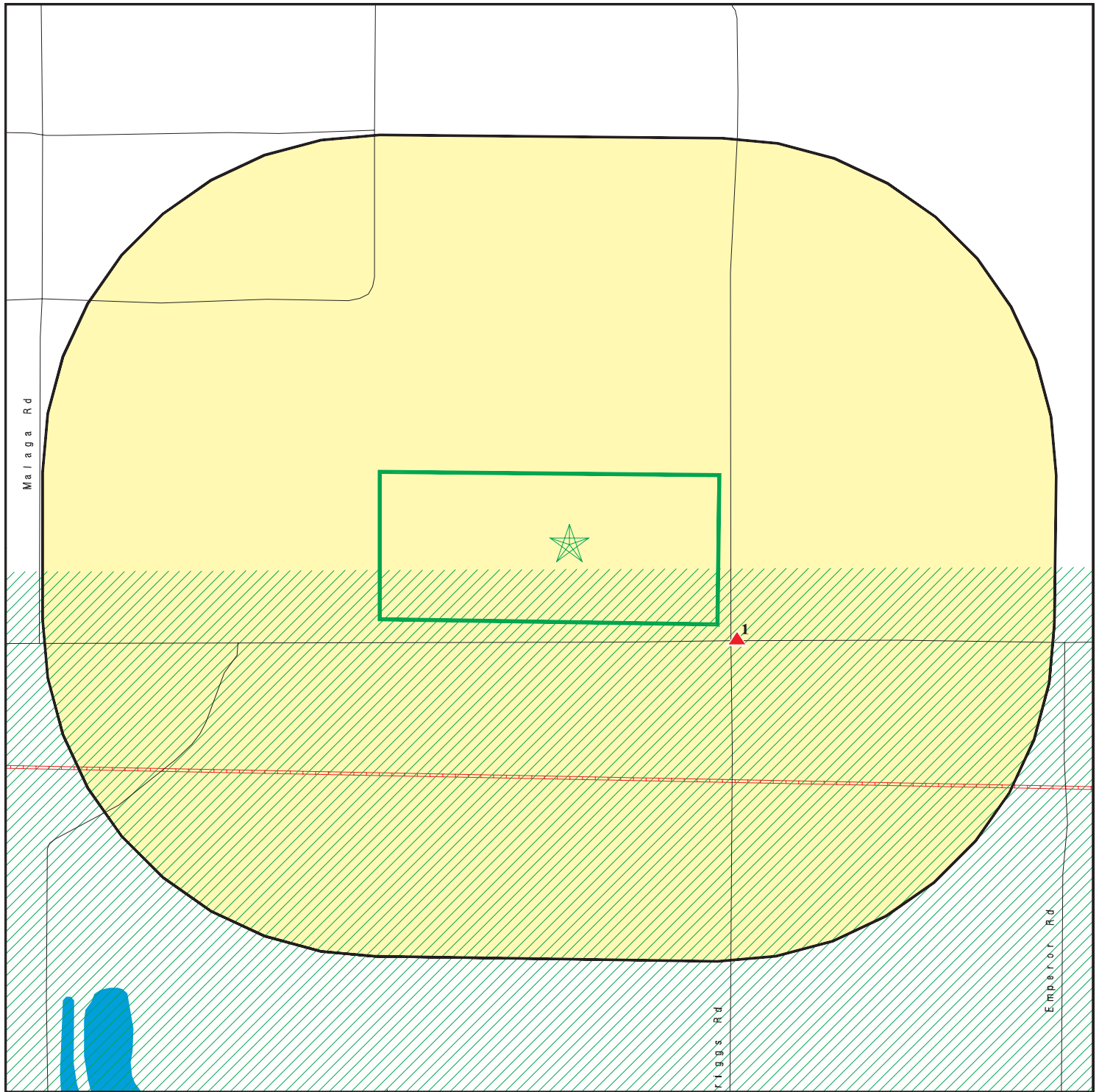
0 1/4 1/2 1 Miles








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: MR 56
 ADDRESS: Northwest Corner of Highway 74 and Briggs Road
 Sun City CA 92585
 LAT/LONG: 33.744229 / 117.138591

CLIENT: Geocon Env. Consultants, Inc.
 CONTACT: Alice Orton
 INQUIRY #: 4891134.2s
 DATE: March 27, 2017 9:39 pm

DETAIL MAP - 4891134.2S



-  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

-  Indian Reservations BIA
-  Pipelines
-  100-year flood zone
-  500-year flood zone
-  Areas of Concern

0 1/16 1/8 1/4 Miles

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: MR 56
 ADDRESS: Northwest Corner of Highway 74 and Briggs Road
 Sun City CA 92585
 LAT/LONG: 33.744229 / 117.138591

CLIENT: Geocon Env. Consultants, Inc.
 CONTACT: Alice Orton
 INQUIRY #: 4891134.2s
 DATE: March 27, 2017 9:42 pm

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								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	0.001		0	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
ENVIROSTOR	1.000		1	0	0	0	NR	1
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	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
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields 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
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	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	0	NR	0
SCH	0.250		1	0	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	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
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

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
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	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
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	0	0	NR	0
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	0.001		0	NR	NR	NR	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	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
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

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
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	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
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
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	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	2	0	0	0	0	2
-------------	--	---	---	---	---	---	---	---

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

1
ESE
< 1/8
0.018 mi.
94 ft.

**HIGH SCHOOL NO. 3
BRIGGS ROAD/PINACATE ROAD
ROMOLAND, CA 92585**

**ENVIROSTOR
SCH**

**S105840774
N/A**

**Relative:
Higher**

ENVIROSTOR:

**Actual:
1529 ft.**

Facility ID: 33010072
Status: No Further Action
Status Date: 03/19/2003
Site Code: 404438
Site Type: School Investigation
Site Type Detailed: School
Acres: 60
NPL: NO
Regulatory Agencies: DTSC
Lead Agency: DTSC
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 67
Senate: 23
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 33.74451
Longitude: -117.1718
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: Aldrin Chlordane DDD DDE DDT Dieldrin Endosulfan Endrin HCH (alpha HCH (beta HCH (gamma) Lindane HCH-technical Heptachlor Heptachlor epoxide Mirex Toxaphene TPH-diesel TPH-gas PCBs (unspeciated mixture, high risk, e.g. Aroclor 1254 PCBs (unspeciated mixture, low risk, e.g. Aroclor 1016 Polybrominated biphenyls Polychlorinated biphenyls (PCBs Polychlorinated biphenyls (PCBs, see IRIS Polynuclear aromatic hydrocarbons (PAHs
Confirmed COC: 30004-NO 30006-NO 30007-NO 30008-NO 30010-NO 30019-NO 30024-NO 30025-NO 30468-NO 30470-NO 30309-NO 30313-NO 30314-NO 30315-NO 30316-NO 30207-NO 30467-NO 30469-NO 30400-NO 30261-NO 30043-NO 30308-NO 30018-NO 30023-NO
Potential Description: SOIL
Alias Name: AGRI-EMPIRE
Alias Type: Alternate Name
Alias Name: HIGH SCHOOL NO. 3
Alias Type: Alternate Name
Alias Name: PERRIS UNION HIGH SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: PERRIS UNION HSD-PROPOSED HIGH SCHOOL #3
Alias Type: Alternate Name
Alias Name: 404438
Alias Type: Project Code (Site Code)
Alias Name: 33010072
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 03/19/2003

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HIGH SCHOOL NO. 3 (Continued)

S105840774

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/15/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Workplan
Completed Date: 12/29/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 03/02/2003
Comments: Phase 1 Draft

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 01/12/2005
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

SCH:

Facility ID: 33010072
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 60
National Priorities List: NO
Cleanup Oversight Agencies: DTSC
Lead Agency: DTSC
Lead Agency Description: * DTSC
Project Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404438
Assembly: 67
Senate: 23
Special Program Status: Not reported
Status: No Further Action
Status Date: 03/19/2003
Restricted Use: NO

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HIGH SCHOOL NO. 3 (Continued)

S105840774

Funding: School District
Latitude: 33.74451
Longitude: -117.1718
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: Aldrin, Chlordane, DDD, DDE, DDT, Dieldrin, Endosulfan, Endrin, HCH (alpha, HCH (beta, HCH (gamma) Lindane, HCH-technical, Heptachlor, Heptachlor epoxide, Mirex, Toxaphene, TPH-diesel, TPH-gas, PCBs (unspeciated mixture, high risk, e.g. Aroclor 1254, PCBs (unspeciated mixture, low risk, e.g. Aroclor 1016, Polybrominated biphenyls, Polychlorinated biphenyls (PCBs, Polychlorinated biphenyls (PCBs, see IRIS, Polynuclear aromatic hydrocarbons (PAHs
Confirmed COC: 30004-NO, 30006-NO, 30007-NO, 30008-NO, 30010-NO, 30019-NO, 30024-NO, 30025-NO, 30468-NO, 30470-NO, 30309-NO, 30313-NO, 30314-NO, 30315-NO, 30316-NO, 30207-NO, 30467-NO, 30469-NO, 30400-NO, 30261-NO, 30043-NO, 30308-NO, 30018-NO, 30023-NO
Potential Description: SOIL
Alias Name: AGRI-EMPIRE
Alias Type: Alternate Name
Alias Name: HIGH SCHOOL NO. 3
Alias Type: Alternate Name
Alias Name: PERRIS UNION HIGH SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: PERRIS UNION HSD-PROPOSED HIGH SCHOOL #3
Alias Type: Alternate Name
Alias Name: 404438
Alias Type: Project Code (Site Code)
Alias Name: 33010072
Alias Type: Envirostor ID Number
Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 03/19/2003
Comments: Not reported
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 09/15/2004
Comments: Not reported
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Workplan
Completed Date: 12/29/2003
Comments: Not reported
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 03/02/2003
Comments: Phase 1 Draft
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HIGH SCHOOL NO. 3 (Continued)

S105840774

Completed Date: 01/12/2005
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

Count: 2 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
HEMET	S107540908		TRUELSON AVE & BETHEL (NORTH W	92545	CDL
RIVERSIDE COUNTY	S107541240		WINEVILLE, SW CORNER OF GAGELE		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

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/05/2016	Source: EPA
Date Data Arrived at EDR: 01/05/2017	Telephone: N/A
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/17/2017
	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: 12/05/2016	Source: EPA
Date Data Arrived at EDR: 01/05/2017	Telephone: N/A
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/17/2017
	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	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/05/2016	Source: EPA
Date Data Arrived at EDR: 01/05/2017	Telephone: N/A
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 09/14/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/04/2016	Telephone: 703-603-8704
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 01/05/2017
Number of Days to Update: 17	Next Scheduled EDR Contact: 04/17/2017
	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 known 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: 10/10/2016	Source: EPA
Date Data Arrived at EDR: 10/20/2016	Telephone: 800-424-9346
Date Made Active in Reports: 01/06/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 10/10/2016	Source: EPA
Date Data Arrived at EDR: 10/20/2016	Telephone: 800-424-9346
Date Made Active in Reports: 01/06/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/12/2016	Source: EPA
Date Data Arrived at EDR: 12/28/2016	Telephone: 800-424-9346
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 12/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Varies

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: 05/28/2015	Source: Department of the Navy
Date Data Arrived at EDR: 05/29/2015	Telephone: 843-820-7326
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 02/13/2017
Number of Days to Update: 13	Next Scheduled EDR Contact: 05/29/2017
	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: 11/15/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/29/2016	Telephone: 703-603-0695
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 02/28/2017
Number of Days to Update: 66	Next Scheduled EDR Contact: 06/12/2017
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/15/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/29/2016	Telephone: 703-603-0695
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 02/28/2017
Number of Days to Update: 66	Next Scheduled EDR Contact: 06/12/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 09/26/2016

Date Data Arrived at EDR: 09/29/2016

Date Made Active in Reports: 11/11/2016

Number of Days to Update: 43

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180

Last EDR Contact: 12/28/2016

Next Scheduled EDR Contact: 04/10/2017

Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity.

These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/31/2016

Date Data Arrived at EDR: 11/01/2016

Date Made Active in Reports: 01/18/2017

Number of Days to Update: 78

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 01/31/2017

Next Scheduled EDR Contact: 05/08/2017

Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/31/2016

Date Data Arrived at EDR: 11/01/2016

Date Made Active in Reports: 01/18/2017

Number of Days to Update: 78

Source: Department of Toxic Substances Control

Telephone: 916-323-3400

Last EDR Contact: 01/31/2017

Next Scheduled EDR Contact: 05/08/2017

Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/14/2016

Date Data Arrived at EDR: 11/15/2016

Date Made Active in Reports: 01/20/2017

Number of Days to Update: 66

Source: Department of Resources Recycling and Recovery

Telephone: 916-341-6320

Last EDR Contact: 02/15/2017

Next Scheduled EDR Contact: 05/29/2017

Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016

Date Data Arrived at EDR: 12/14/2016

Date Made Active in Reports: 01/20/2017

Number of Days to Update: 37

Source: State Water Resources Control Board

Telephone: see region list

Last EDR Contact: 03/14/2017

Next Scheduled EDR Contact: 06/26/2017

Data Release Frequency: Quarterly

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 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: Varies

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 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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: 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

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
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: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
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: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/24/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC: Statewide SLIC Cases

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 40

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/14/2017
Next Scheduled EDR Contact: 06/26/2017
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: Quarterly

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: Semi-Annually

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: Varies

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: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: Semi-Annually

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: Semi-Annually

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: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/12/2016	Source: SWRCB
Date Data Arrived at EDR: 09/14/2016	Telephone: 916-341-5851
Date Made Active in Reports: 10/14/2016	Last EDR Contact: 03/16/2017
Number of Days to Update: 30	Next Scheduled EDR Contact: 06/26/2017
	Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 07/12/2016	Telephone: 916-327-5092
Date Made Active in Reports: 09/19/2016	Last EDR Contact: 12/22/2016
Number of Days to Update: 69	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

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: 12/03/2015	Source: EPA Region 6
Date Data Arrived at EDR: 02/04/2016	Telephone: 214-665-7591
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 120	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Semi-Annually

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 Tribal Nations).

Date of Government Version: 11/05/2015	Source: EPA Region 5
Date Data Arrived at EDR: 11/13/2015	Telephone: 312-886-6136
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 52	Next Scheduled EDR Contact: 05/08/2017
	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: 02/05/2016	Source: EPA Region 4
Date Data Arrived at EDR: 04/29/2016	Telephone: 404-562-9424
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/24/2017
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 10/29/2015	Telephone: 617-918-1313
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 67	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 01/07/2016	Source: EPA Region 10
Date Data Arrived at EDR: 01/08/2016	Telephone: 206-553-2857
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 41	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

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: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 01/26/2017
Number of Days to Update: 65	Next Scheduled EDR Contact: 05/08/2017
	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: 02/25/2016	Source: EPA Region 9
Date Data Arrived at EDR: 04/27/2016	Telephone: 415-972-3368
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 37	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

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: 01/26/2016	Source: EPA Region 8
Date Data Arrived at EDR: 02/05/2016	Telephone: 303-312-6137
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 119	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

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: 10/31/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/01/2016	Telephone: 916-323-3400
Date Made Active in Reports: 01/18/2017	Last EDR Contact: 01/31/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 12/27/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfields 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: 01/03/2017
Date Data Arrived at EDR: 01/04/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 57

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 01/04/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/19/2016
Date Data Arrived at EDR: 12/20/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 07/03/2017
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: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/14/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 08/25/2016
Date Data Arrived at EDR: 08/26/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 49

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
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: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
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: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
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 Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 36

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
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: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
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: 08/31/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

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: 09/30/2016
Date Data Arrived at EDR: 12/05/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 67

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/07/2005	Telephone: N/A
Date Made Active in Reports: 08/11/2005	Last EDR Contact: 06/03/2005
Number of Days to Update: 35	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/01/2016	Source: Department of Public Health
Date Data Arrived at EDR: 12/06/2016	Telephone: 707-463-4466
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 02/27/2017
Number of Days to Update: 35	Next Scheduled EDR Contact: 06/12/2017
	Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990	Source: State Water Resources Control Board
Date Data Arrived at EDR: 01/25/1991	Telephone: 916-341-5851
Date Made Active in Reports: 02/12/1991	Last EDR Contact: 07/26/2001
Number of Days to Update: 18	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

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	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/05/1995	Telephone: 916-341-5851
Date Made Active in Reports: 09/29/1995	Last EDR Contact: 12/28/1998
Number of Days to Update: 24	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

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: 11/29/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 12/06/2016	Telephone: 916-323-3400
Date Made Active in Reports: 01/23/2017	Last EDR Contact: 03/06/2017
Number of Days to Update: 48	Next Scheduled EDR Contact: 06/19/2017
	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: 02/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/18/2014	Telephone: 202-564-6023
Date Made Active in Reports: 04/24/2014	Last EDR Contact: 01/24/2017
Number of Days to Update: 37	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 12/06/2016	Source: DTSC and SWRCB
Date Data Arrived at EDR: 12/06/2016	Telephone: 916-323-3400
Date Made Active in Reports: 01/20/2017	Last EDR Contact: 03/07/2017
Number of Days to Update: 45	Next Scheduled EDR Contact: 06/19/2017
	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: 12/28/2016	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 12/28/2016	Telephone: 202-366-4555
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 12/28/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Annually

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: 09/26/2016	Source: Office of Emergency Services
Date Data Arrived at EDR: 10/26/2016	Telephone: 916-845-8400
Date Made Active in Reports: 01/17/2017	Last EDR Contact: 01/25/2017
Number of Days to Update: 83	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016	Source: State Water Quality Control Board
Date Data Arrived at EDR: 12/14/2016	Telephone: 866-480-1028
Date Made Active in Reports: 01/20/2017	Last EDR Contact: 03/14/2017
Number of Days to Update: 37	Next Scheduled EDR Contact: 06/26/2017
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/14/2016	Telephone: 866-480-1028
Date Made Active in Reports: 01/20/2017	Last EDR Contact: 03/14/2017
Number of Days to Update: 37	Next Scheduled EDR Contact: 06/26/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

Source: FirstSearch

Date Data Arrived at EDR: 01/03/2013

Telephone: N/A

Date Made Active in Reports: 02/22/2013

Last EDR Contact: 01/03/2013

Number of Days to Update: 50

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: 12/12/2016

Source: Environmental Protection Agency

Date Data Arrived at EDR: 12/28/2016

Telephone: (415) 495-8895

Date Made Active in Reports: 02/10/2017

Last EDR Contact: 03/02/2017

Number of Days to Update: 44

Next Scheduled EDR Contact: 04/10/2017

Data Release Frequency: Varies

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: 01/31/2015

Source: U.S. Army Corps of Engineers

Date Data Arrived at EDR: 07/08/2015

Telephone: 202-528-4285

Date Made Active in Reports: 10/13/2015

Last EDR Contact: 02/24/2017

Number of Days to Update: 97

Next Scheduled EDR Contact: 06/05/2017

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

Source: USGS

Date Data Arrived at EDR: 11/10/2006

Telephone: 888-275-8747

Date Made Active in Reports: 01/11/2007

Last EDR Contact: 01/13/2017

Number of Days to Update: 62

Next Scheduled EDR Contact: 04/24/2017

Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005

Source: U.S. Geological Survey

Date Data Arrived at EDR: 02/06/2006

Telephone: 888-275-8747

Date Made Active in Reports: 01/11/2007

Last EDR Contact: 01/13/2017

Number of Days to Update: 339

Next Scheduled EDR Contact: 04/24/2017

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/29/2017
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: 10/11/2016
Date Data Arrived at EDR: 11/16/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/15/2017
Next Scheduled EDR Contact: 05/29/2017
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: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
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: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/10/2017
Next Scheduled EDR Contact: 05/22/2017
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: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/23/2016
Next Scheduled EDR Contact: 04/03/2017
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 05/08/2017
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: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
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: 08/01/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 02/10/2017
Number of Days to Update: 3	Next Scheduled EDR Contact: 05/22/2017
	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: 01/20/2016	Source: EPA
Date Data Arrived at EDR: 04/28/2016	Telephone: 202-566-0500
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 01/13/2017
Number of Days to Update: 127	Next Scheduled EDR Contact: 04/24/2017
	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-5088
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 01/09/2017
Number of Days to Update: 79	Next Scheduled EDR Contact: 04/24/2017
	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	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 02/17/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 06/05/2017
	Data Release Frequency: Quarterly

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	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 02/17/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 06/05/2017
	Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 09/08/2016	Telephone: 301-415-7169
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 02/03/2017
Number of Days to Update: 43	Next Scheduled EDR Contact: 05/22/2017
	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: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 03/06/2017
Number of Days to Update: 76	Next Scheduled EDR Contact: 06/19/2017
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 03/06/2017
Number of Days to Update: 40	Next Scheduled EDR Contact: 06/19/2017
	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: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 01/29/2016
Number of Days to Update: 83	Next Scheduled EDR Contact: 05/08/2017
	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: 01/04/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/06/2017	Telephone: 202-343-9775
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 01/06/2017
Number of Days to Update: 35	Next Scheduled EDR Contact: 04/17/2017
	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	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/01/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

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: 09/30/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 77

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/10/2017
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: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
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: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
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: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/17/2017
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 1931 and 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: 03/07/2017
Next Scheduled EDR Contact: 07/10/2017
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: 03/07/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2016
Date Data Arrived at EDR: 09/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/03/2017
Next Scheduled EDR Contact: 06/12/2017
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: 03/03/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

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: 07/15/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 65

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
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: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 91

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 01/20/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

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).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 64

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

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: 09/02/2016
Date Data Arrived at EDR: 09/27/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 09/23/2016
Date Made Active in Reports: 10/24/2016
Number of Days to Update: 31

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/21/2017
Next Scheduled EDR Contact: 07/03/2017
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: 12/06/2016
Date Data Arrived at EDR: 12/09/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 40

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/25/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
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: 11/16/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 63

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 62

Source: Department of Toxic Substances Control
Telephone: 877-786-9427
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
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: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 62

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
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: 10/12/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/11/2017
Next Scheduled EDR Contact: 04/24/2017
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: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/13/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Varies

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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 86

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/15/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 107

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/15/2017
Next Scheduled EDR Contact: 05/29/2017
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: 12/06/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/03/2017
Number of Days to Update: 87

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/14/2017
Next Scheduled EDR Contact: 06/26/2017
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: 12/16/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/20/2017
Next Scheduled EDR Contact: 07/03/2017
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: 07/06/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/14/2017
Next Scheduled EDR Contact: 06/26/2017
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 board's review found that more than one-third of the region's active disposal pits are operating without permission.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2047
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: 02/17/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

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: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
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: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/13/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 12/11/2016
Date Data Arrived at EDR: 12/20/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 03/21/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: Quarterly

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: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 73

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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 Historic Gas 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 Historic Dry 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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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:

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: 10/12/2016
Date Data Arrived at EDR: 10/14/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 35

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 90

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 11/10/2016
Date Data Arrived at EDR: 12/13/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 9

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 10/21/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 23

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility Listing

Cupa Facility Listing

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: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/27/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/17/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/26/2017
Number of Days to Update: 65

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List

Cupa Facility list

Date of Government Version: 11/01/2016
Date Data Arrived at EDR: 11/03/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 19

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 11/22/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 55

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

FRESNO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 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: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/03/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/10/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 51

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 01/23/2017
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 36

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 63

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

KINGS COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 12/14/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 6

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/18/2017
Date Data Arrived at EDR: 01/20/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 41

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

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: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/20/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 66

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 10/18/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 58

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/18/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016	Source: Community Health Services
Date Data Arrived at EDR: 04/06/2016	Telephone: 323-890-7806
Date Made Active in Reports: 06/13/2016	Last EDR Contact: 01/17/2017
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 04/02/2015	Telephone: 310-524-2236
Date Made Active in Reports: 04/13/2015	Last EDR Contact: 01/17/2017
Number of Days to Update: 11	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 11/13/2015	Telephone: 562-570-2563
Date Made Active in Reports: 12/17/2015	Last EDR Contact: 01/23/2017
Number of Days to Update: 34	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/04/2016	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 10/11/2016	Telephone: 310-618-2973
Date Made Active in Reports: 01/12/2017	Last EDR Contact: 01/09/2017
Number of Days to Update: 93	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Semi-Annually

MADERA COUNTY:

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: 12/05/2016	Source: Madera County Environmental Health
Date Data Arrived at EDR: 12/09/2016	Telephone: 559-675-7823
Date Made Active in Reports: 01/19/2017	Last EDR Contact: 02/21/2017
Number of Days to Update: 41	Next Scheduled EDR Contact: 06/05/2017
	Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/19/2016	Source: Public Works Department Waste Management
Date Data Arrived at EDR: 10/25/2016	Telephone: 415-499-6647
Date Made Active in Reports: 01/12/2017	Last EDR Contact: 01/17/2017
Number of Days to Update: 79	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Semi-Annually

MERCED COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List CUPA facility list.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 42

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List CUPA Facility List

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/05/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 17

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Date Data Arrived at EDR: 06/27/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 43

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

NAPA COUNTY:

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: 03/09/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List CUPA facility list.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 44

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 11/03/2016
Date Data Arrived at EDR: 11/11/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/04/2016
Date Data Arrived at EDR: 11/11/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/03/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 65

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/07/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/19/2017
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 36

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/20/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 10/20/2016
Date Data Arrived at EDR: 10/25/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 77

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/20/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 56

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

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: 11/08/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 56

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

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: 12/09/2016
Date Data Arrived at EDR: 12/13/2016
Date Made Active in Reports: 03/03/2017
Number of Days to Update: 80

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

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: 10/05/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 86

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/10/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

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: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversight 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: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 52

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/21/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/14/2017
Number of Days to Update: 49

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/20/2017
Next Scheduled EDR Contact: 07/03/2017
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 11/17/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SAN MATEO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/02/2016

Date Data Arrived at EDR: 06/07/2016

Date Made Active in Reports: 06/22/2016

Number of Days to Update: 15

Source: San Mateo County Environmental Health Services Division

Telephone: 650-363-1921

Last EDR Contact: 03/09/2017

Next Scheduled EDR Contact: 06/26/2017

Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2016

Date Data Arrived at EDR: 12/16/2016

Date Made Active in Reports: 03/02/2017

Number of Days to Update: 76

Source: San Mateo County Environmental Health Services Division

Telephone: 650-363-1921

Last EDR Contact: 03/09/2017

Next Scheduled EDR Contact: 06/26/2017

Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

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: 02/21/2017

Next Scheduled EDR Contact: 06/05/2017

Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 11/16/2016

Date Data Arrived at EDR: 11/21/2016

Date Made Active in Reports: 01/19/2017

Number of Days to Update: 59

Source: Department of Environmental Health

Telephone: 408-918-1973

Last EDR Contact: 02/21/2017

Next Scheduled EDR Contact: 06/05/2017

Data Release Frequency: Varies

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

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: 02/24/2017

Next Scheduled EDR Contact: 06/12/2017

Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/10/2016
Date Made Active in Reports: 01/24/2017
Number of Days to Update: 75

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 12/13/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 76

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/21/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 1

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 19

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List

Cupa Facility list

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/22/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 65

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 55

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 35

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/25/2017
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 34

Source: Division of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

VENTURA COUNTY:

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: 09/26/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 82

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

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: 12/30/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Quarterly

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: 09/26/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 01/24/2017
Number of Days to Update: 89

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/28/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 29

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/15/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 55

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 01/03/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 10/28/2016
Date Data Arrived at EDR: 11/03/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 42

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/11/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 01/03/2017
Number of Days to Update: 96

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
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: 01/30/2017
Date Data Arrived at EDR: 02/01/2017
Date Made Active in Reports: 02/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/01/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 07/22/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 123

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/12/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/13/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish & Game

Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

MR 56
NORTHWEST CORNER OF HIGHWAY 74 AND BRIGGS ROAD
SUN CITY, CA 92585

TARGET PROPERTY COORDINATES

Latitude (North):	33.744229 - 33° 44' 39.22"
Longitude (West):	117.138591 - 117° 8' 18.93"
Universal Transverse Mercator:	Zone 11
UTM X (Meters):	487162.9
UTM Y (Meters):	3733612.2
Elevation:	1523 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5641314 ROMOLAND, CA
Version Date:	2012
Northeast Map:	5640936 LAKEVIEW, CA
Version Date:	2012
Southeast Map:	5640944 WINCHESTER, CA
Version Date:	2012
Northwest Map:	5641330 PERRIS, CA
Version Date:	2012

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 principal 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).

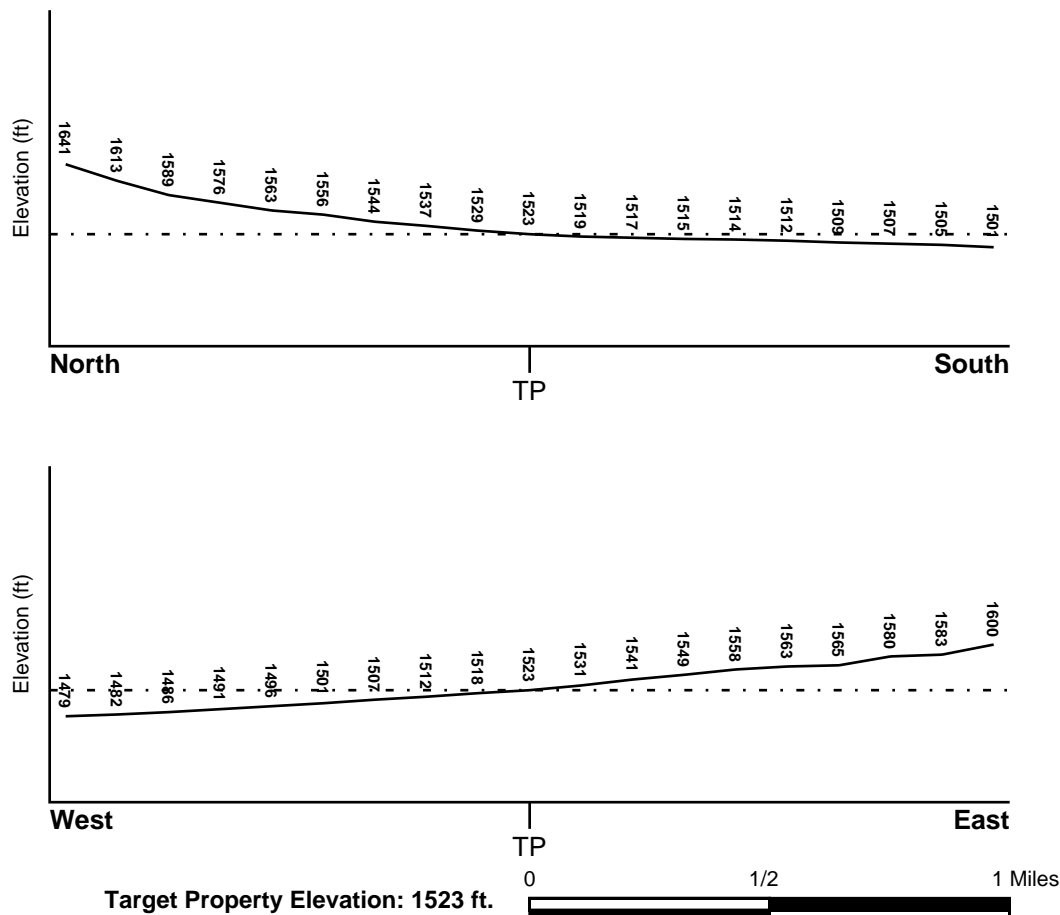
TOPOGRAPHIC INFORMATION

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 SW

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

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
06065C2060H	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
06065C1445H	FEMA FIRM Flood data
06065C1465G	FEMA FIRM Flood data
06065C2080G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
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.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

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

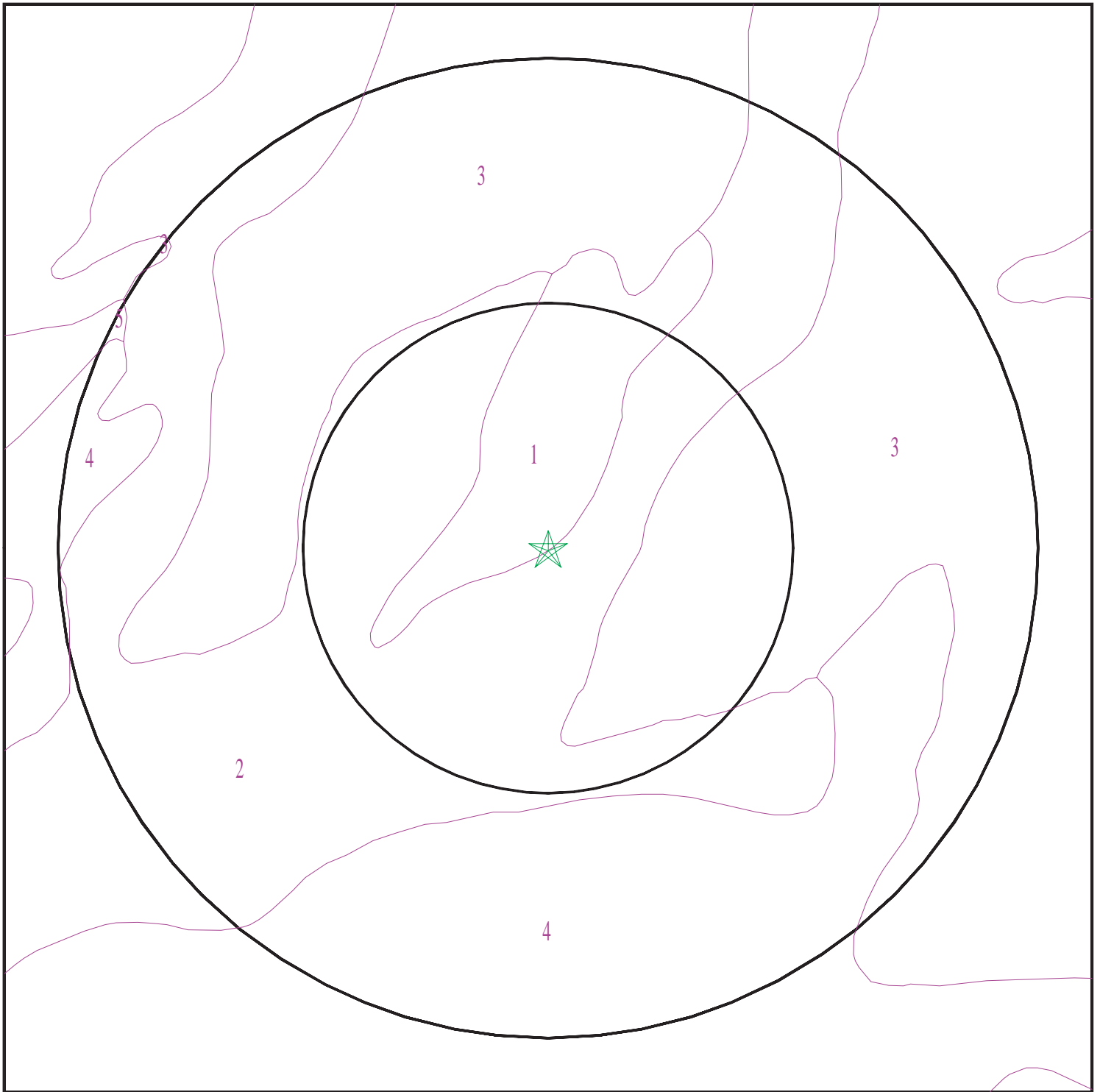
Era:	Mesozoic
System:	Cretaceous
Series:	Cretaceous granitic rocks
Code:	Kg (decoded above as Era, System & Series)

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 - 4891134.2s



- ★ Target Property
- SSURGO Soil
- Water

0 1/16 1/8 1/4 Miles



SITE NAME: MR 56
ADDRESS: Northwest Corner of Highway 74 and Briggs Road
Sun City CA 92585
LAT/LONG: 33.744229 / 117.138591

CLIENT: Geocon Env. Consultants, Inc.
CONTACT: Alice Orton
INQUIRY #: 4891134.2s
DATE: March 27, 2017 9:44 pm

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: EXETER

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 6.6
2	16 inches	37 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 6.6
3	37 inches	50 inches	indurated	Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:
4	50 inches	59 inches	stratified sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

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

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 5.6
2	14 inches	22 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. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	22 inches	68 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, 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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 3

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

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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: 7.8 Min: 6.1
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: 7.8 Min: 6.1
3	42 inches	59 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%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 4

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

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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: 7.8 Min: 6.1
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: 7.8 Min: 6.1
3	42 inches	59 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%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 5

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

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 5.6
2	14 inches	22 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. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	22 inches	68 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, 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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

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

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A2	USGS40000137748	1/8 - 1/4 Mile SE
B4	USGS40000137686	1/4 - 1/2 Mile SSE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

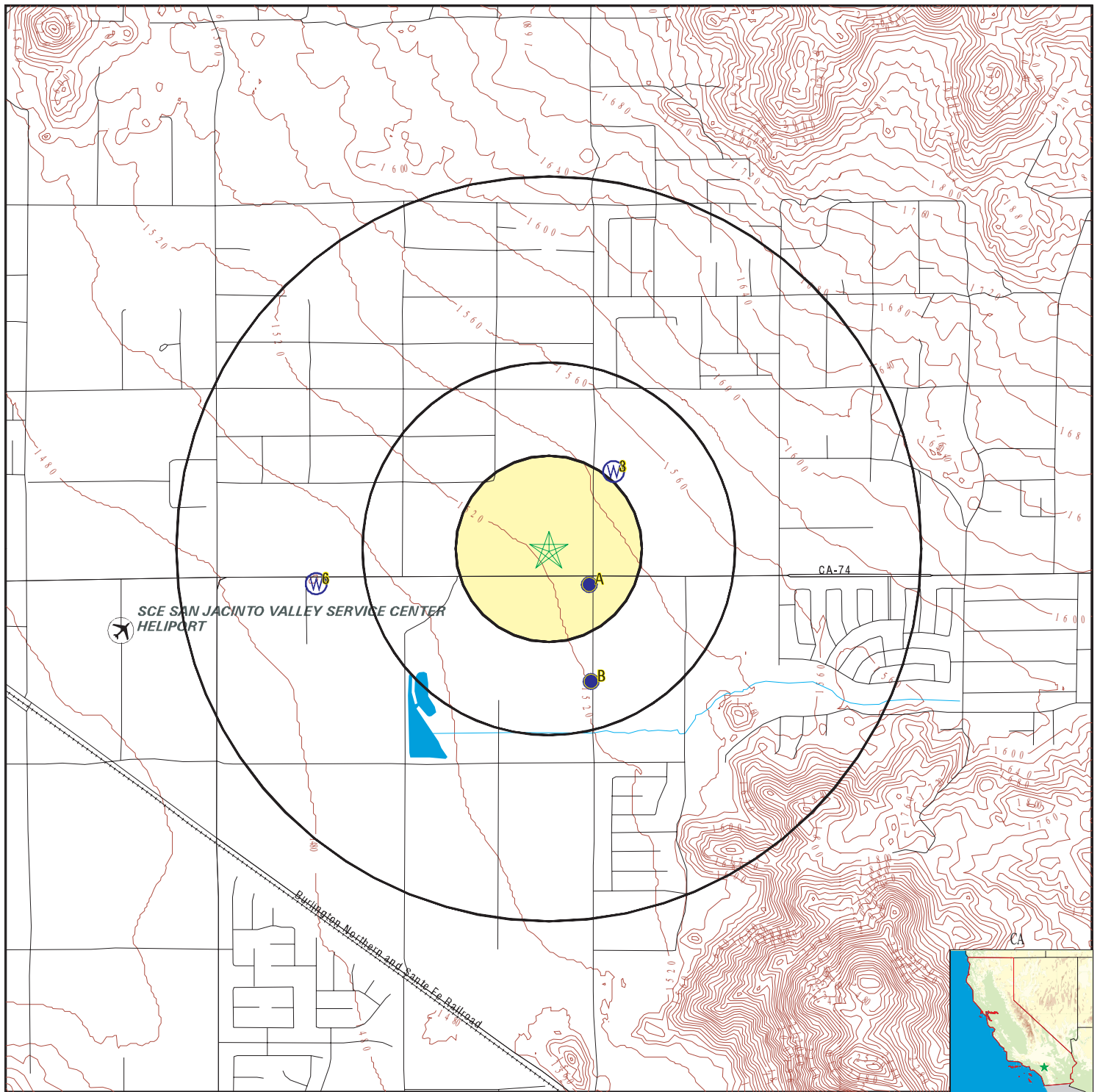
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	CADW60000006163	1/8 - 1/4 Mile SE
3	4797	1/4 - 1/2 Mile NE
B5	CADW60000020475	1/4 - 1/2 Mile SSE
6	CADW60000006164	1/2 - 1 Mile West

PHYSICAL SETTING SOURCE MAP - 4891134.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: MR 56
 ADDRESS: Northwest Corner of Highway 74 and Briggs Road
 Sun City CA 92585
 LAT/LONG: 33.744229 / 117.138591

CLIENT: Geocon Env. Consultants, Inc.
 CONTACT: Alice Orton
 INQUIRY #: 4891134.2s
 DATE: March 27, 2017 9:44 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

A1
SE
1/8 - 1/4 Mile
Higher

CA WELLS CADW60000006163

Objectid: 6163
Latitude: 33.742884
Longitude: -117.136701
Site code: 337429N1171367W001
State well numbe: Not Reported
Local well name: 'EMWD12757'
Well use id: 3
Well use descrip: Irrigation
County id: 33
County name: Riverside
Basin code: '8-5'
Basin desc: San Jacinto
Dwr region id: 80238
Dwr region: Southern Region Office
Site id: CADW60000006163

A2
SE
1/8 - 1/4 Mile
Higher

FED USGS USGS40000137748

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334434117080901		
Monloc name:	005S003W13A001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7427981
Longitude:	-117.1366982	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refs:	NAD83	Vert measure val:	1522
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refs:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19770413	Welldepth:	431
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

3
NE
1/4 - 1/2 Mile
Higher

CA WELLS 4797

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water System Information:

Prime Station Code:	04S/02W-07P01 S	User ID:	WAT
FRDS Number:	3310026007	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	334450.0 1170805.0	Precision:	0.5 Mile (30 Seconds)
Source Name:	WELL 12		
System Number:	3310026		
System Name:	Nuevo Water Company		
Organization That Operates System:	30427 11th Street Nuevo, CA 92367		
Pop Served:	5000	Connections:	1490
Area Served:	NUEVO		

B4
SSE
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000137686**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-334420117080901		
Monloc name:	005S003W13H001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.7391111
Longitude:	-117.1365556	Sourcemap scale:	24000
Horiz Acc measure:	.5	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	1518
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Cenozoic Erathem		
Aquifer type:	Unconfined single aquifer		
Construction date:	19830817	Welldepth:	460
Welldepth units:	ft	Wellholedepth:	465
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
------	-----------------------	---------------------

1995-07-14 114.14

Note: The site had been pumped recently.

B5
SSE
1/4 - 1/2 Mile
Lower

CA WELLS **CADW60000020475**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Objectid: 20475
Latitude: 33.73902
Longitude: -117.136672
Site code: 337391N1171375W001
State well numbe: 05S03W13H001S
Local well name: 'EMWD12761'
Well use id: 3
Well use descrip: Irrigation
County id: 33
County name: Riverside
Basin code: '8-5'
Basin desc: San Jacinto
Dwr region id: 80238
Dwr region: Southern Region Office
Site id: CADW60000020475

6
West
1/2 - 1 Mile
Lower

CA WELLS CADW60000006164

Objectid: 6164
Latitude: 33.74287
Longitude: -117.149438
Site code: 337429N1171494W001
State well numbe: Not Reported
Local well name: 'EMWD12759'
Well use id: 1
Well use descrip: Observation
County id: 33
County name: Riverside
Basin code: '8-5'
Basin desc: San Jacinto
Dwr region id: 80238
Dwr region: Southern Region Office
Site id: CADW60000006164

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92585	6	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level \geq 2 pCi/L and \leq 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 & Game

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.

STATE RECORDS

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.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

RADON

State Database: CA Radon

Source: Department of Health Services

Telephone: 916-324-2208

Radon Database for California

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.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

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

D

MR 56

Northwest Corner of Highway 74 and Briggs Road
Sun City, CA 92585

Inquiry Number: 4891134.6s

April 17, 2017

EDR Vapor Encroachment Screen

Prepared using EDR's Vapor Encroachment Worksheet

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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 the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E 2600).

		Summary		
		property	1/10	1/10 - 1/3
STANDARD ENVIRONMENTAL RECORDS	Maximum Search Distance*			
Federal NPL	0.333	0	0	0
Federal CERCLIS	0.333	0	0	0
Federal RCRA CORRACTS facilities list	0.333	0	0	0
Federal RCRA TSD facilities list	0.333	0	0	0
Federal RCRA generators list	property	0	-	-
Federal institutional controls / engineering controls registries	0.333	0	0	0
Federal ERNS list	property	0	-	-
State and tribal - equivalent NPL	0.333	0	0	0
State and tribal - equivalent CERCLIS	0.333	0	1	0
State and tribal landfill / solid waste disposal	0.333	0	0	0
State and tribal leaking storage tank lists	0.333	0	0	0
State and tribal registered storage tank lists	property	0	-	-
State and tribal institutional control / engineering control registries	not searched	-	-	-
State and tribal voluntary cleanup sites	0.333	0	0	0
State and tribal Brownfields sites	0.333	0	0	0
Other Standard Environmental Records	0.333	0	1	0
HISTORICAL USE RECORDS				
Former manufactured Gas Plants	0.333	0	0	0
Historical Gas Stations	0.125	0	0	0
Historical Dry Cleaners	0.125	0	0	0
Exclusive Recovered Govt. Archives	property	0	-	-

*Each category may include several separate databases, each having a different search distance. For each category, the table reports the maximum search distance applied. See the section 'Record Sources and Currency' for information on individual databases.

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

MR 56
NORTHWEST CORNER OF HIGHWAY 74 AND BRIGGS ROAD
SUN CITY, CA 92585

COORDINATES

Latitude (North):	33.744229 - 33° 44' 39.222107"
Longitude (West):	117.138591 - 117° 8' 18.916626"
Elevation:	1523 ft. above sea level

EXECUTIVE SUMMARY

PHYSICAL SETTING INFORMATION

Flood Zone: Available

NWI Wetlands: Available

AQUIFLOW®

Search Radius: 0.333 Mile.

No Aquiflow sites reported.

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: EXETER

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 6.6

EXECUTIVE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	16 inches	37 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 14 Min: 4	Max: 7.8 Min: 6.6
3	37 inches	50 inches	indurated	Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:
4	50 inches	59 inches	stratified sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

Soil Map ID: 2

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

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 5.6

EXECUTIVE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	14 inches	22 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. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	22 inches	68 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, 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: 3

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

EXECUTIVE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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: 7.8 Min: 6.1
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: 7.8 Min: 6.1
3	42 inches	59 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%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
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: 4

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

EXECUTIVE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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: 7.8 Min: 6.1
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: 7.8 Min: 6.1
3	42 inches	59 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%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
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: 5

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

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

EXECUTIVE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 5.6
2	14 inches	22 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. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	22 inches	68 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, 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: 6

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

EXECUTIVE 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							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		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: 42 Min: 14	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: 42 Min: 14	Max: 7.8 Min: 5.6
3	40 inches	59 inches	stratified loamy sand to coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6

Soil Map ID: 7

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

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

EXECUTIVE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 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: 14 Min: 4	Max: 7.3 Min: 5.6
2	7 inches	16 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. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	16 inches	68 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, 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

EXECUTIVE SUMMARY

SEARCH RESULTS

Unmappable (orphan) sites are not considered in the foregoing analysis.

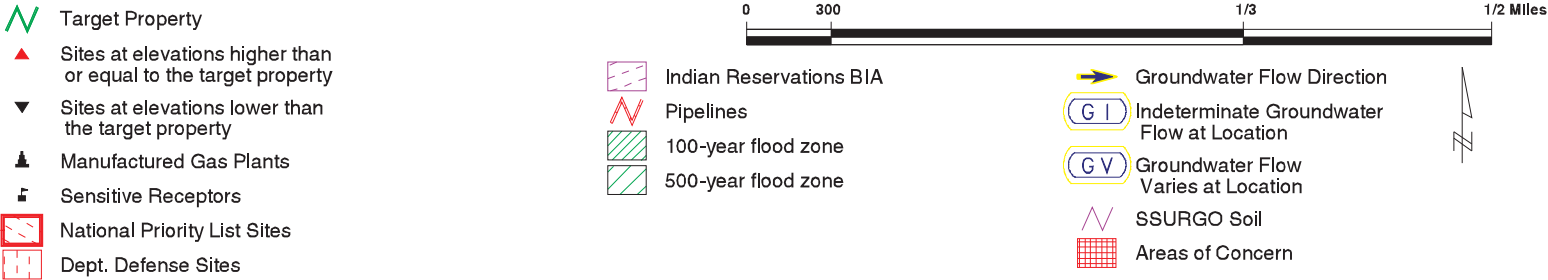
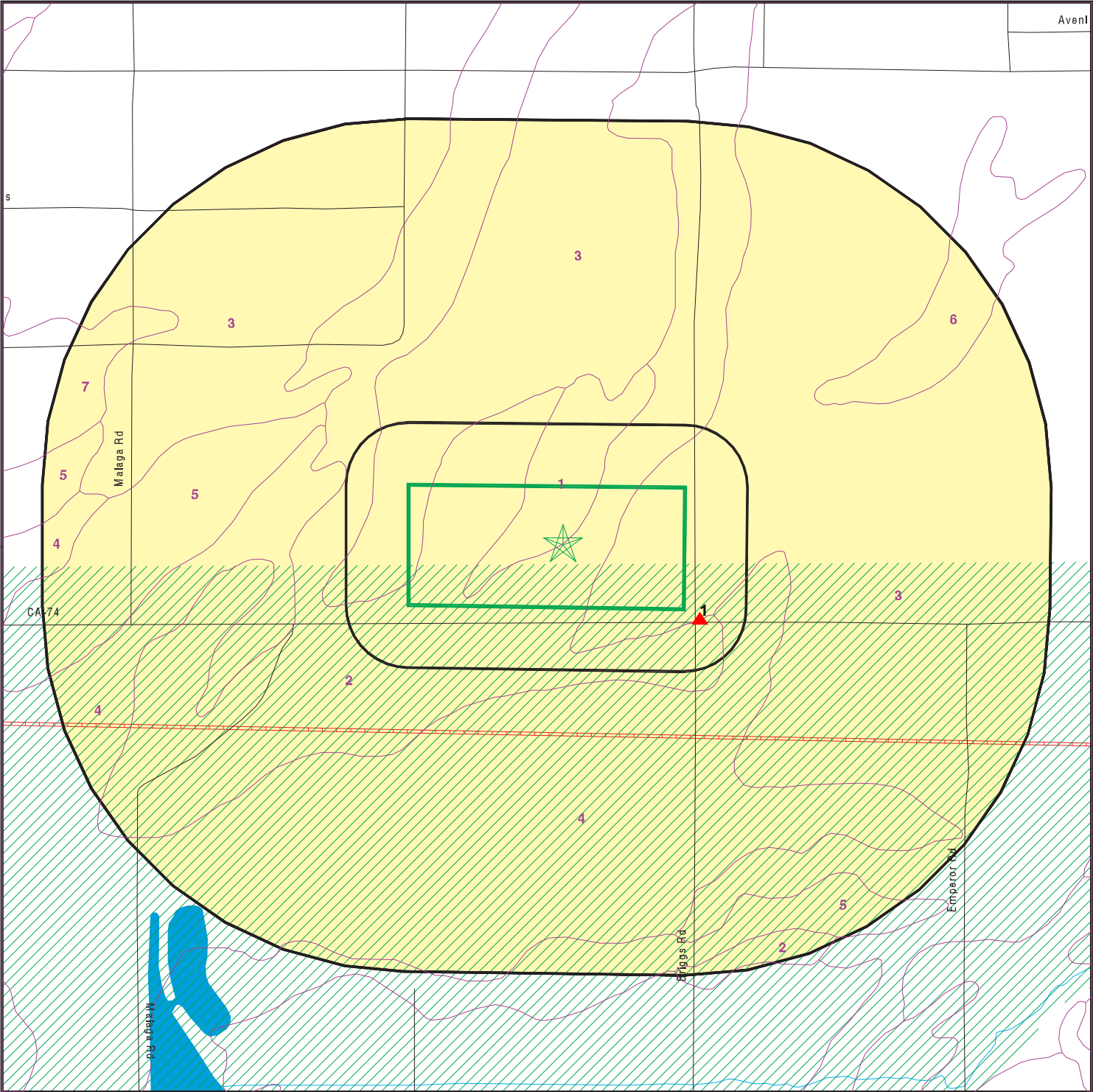
STANDARD ENVIRONMENTAL RECORDS

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
HIGH SCHOOL NO. 3	BRIGGS ROAD/PINACATE ROAD	<1/10 ESE	▲ 1	16
SCH: Other Standard Environmental Records ENVIROSTOR: State and tribal - equivalent CERCLIS				

HISTORICAL USE RECORDS

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
Not Reported				

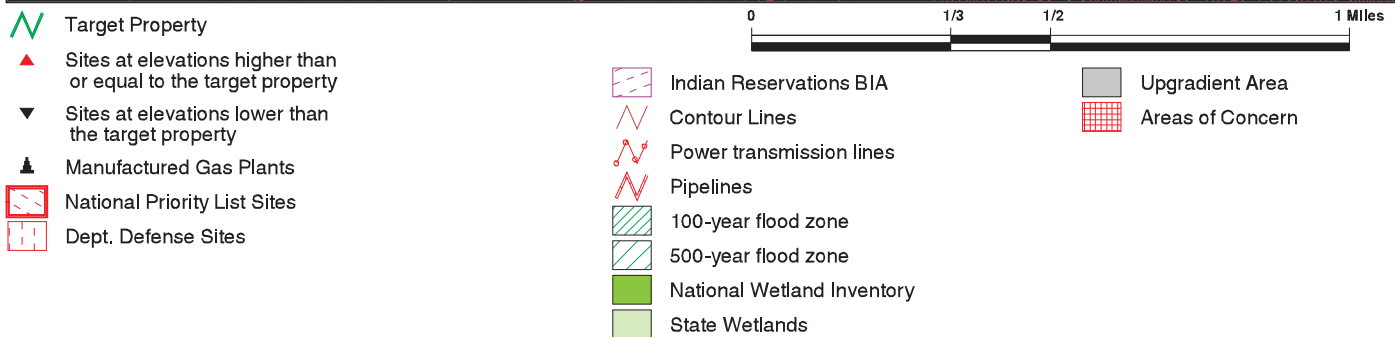
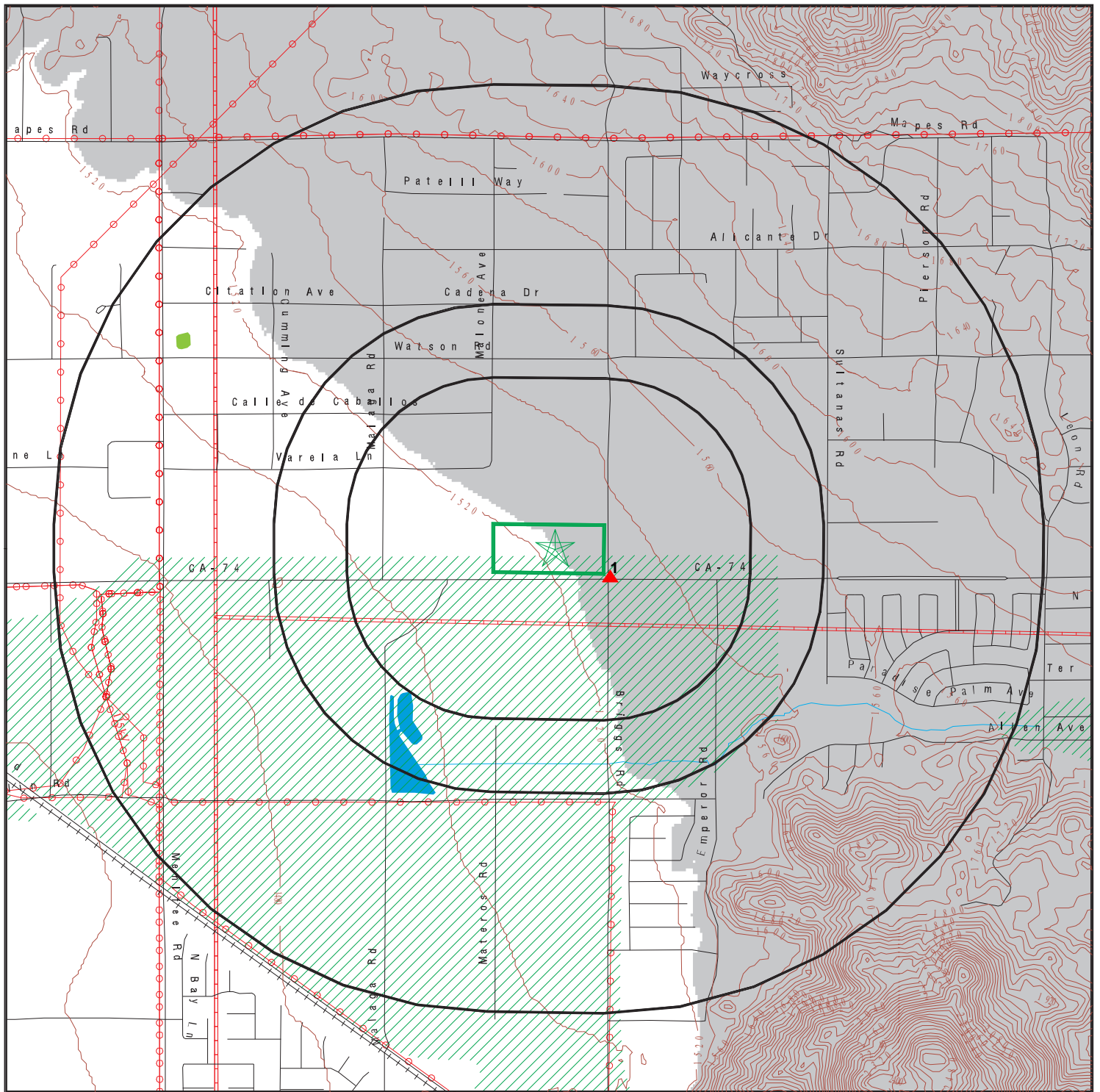
PRIMARY MAP - 4891134.6S



SITE NAME: MR 56
ADDRESS: Northwest Corner of Highway 74 and Briggs Road
Sun City CA 92585
LAT/LONG: 33.744229 / 117.138591

CLIENT: Geocon Env. Consultants, Inc.
CONTACT: Alice Orton
INQUIRY #: 4891134.6s
DATE: March 28, 2017 10:30 am

SECONDARY MAP - 4891134.6S



SITE NAME: MR 56
 ADDRESS: Northwest Corner of Highway 74 and Briggs Road
 Sun City CA 92585
 LAT/LONG: 33.744229 / 117.138591

CLIENT: Geocon Env. Consultants, Inc.
 CONTACT: Alice Orton
 INQUIRY #: 4891134.6s
 DATE: March 28, 2017 10:28 am

AERIAL PHOTOGRAPHY - 4891134.6s



0 300 1/3 1/2 Miles



SITE NAME: MR 56
ADDRESS: Northwest Corner of Highway 74 and Briggs Road
Sun City CA 92585
LAT/LONG: 33.744229 / 117.138591

CLIENT: Geocon Env. Consultants, Inc.
CONTACT: Alice Orton
INQUIRY #: 4891134.6s
DATE: March 28, 2017 10:32 am

MAP FINDINGS

LEGEND

FACILITY NAME FACILITY ADDRESS, CITY, ST, ZIP		EDR SITE ID NUMBER
▼ MAP ID#	Direction Distance Range (Distance feet / miles)	ASTM 2600 Record Sources found in this report. Each database searched has been assigned to one or more categories. For detailed information about categorization, see the section of the report Records Searched and Currency.
	Relative Elevation Feet Above Sea Level	
Worksheet:		
Comments:		
Comments may be added on the online Vapor Encroachment Worksheet.		

DATABASE ACRONYM: Applicable categories (A hoverbox with database description).

HIGH SCHOOL NO. 3 BRIGGS ROAD/PINACATE ROAD, ROMOLAND, CA, 92585		S105840774
▲ 1	ESE <1/10 (94 ft. / 0.018 mi.)	State and tribal - equivalent CERCLIS Other Standard Environmental Records
	6 ft. Higher Elevation 1529 ft. Above Sea Level	

Worksheet:

SCH: Other Standard Environmental Records



Facility ID:	33010072
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	60
National Priorities List:	NO
Cleanup Oversight Agencies:	DTSC
Lead Agency:	DTSC
Lead Agency Description:	* DTSC
Project Manager:	Not Reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	404438
Assembly:	67
Senate:	23
Special Program Status:	Not Reported
Status:	No Further Action
Status Date:	03/19/2003
Restricted Use:	NO
Funding:	School District
Latitude:	33.74451
Longitude:	-117.1718
APN:	NONE SPECIFIED

MAP FINDINGS

HIGH SCHOOL NO. 3, BRIGGS ROAD/PINACATE ROAD, ROMOLAND, CA 92585 (Continued)

Past Use: AGRICULTURAL - ROW CROPS

Potential COC: Aldrin, Chlordane, DDD, DDE, DDT, Dieldrin, Endosulfan, Endrin, HCH (alpha, HCH (beta, HCH (gamma) Lindane, HCH-technical, Heptachlor, Heptachlor epoxide, Mirex, Toxaphene, TPH-diesel, TPH-gas, PCBs (unspeciated mixture, high risk, e.g. Aroclor 1254, PCBs (unspeciated mixture, low risk, e.g. Aroclor 1016, Polybrominated biphenyls, Polychlorinated biphenyls (PCBs, Polychlorinated biphenyls (PCBs, see IRIS, Polynuclear aromatic hydrocarbons (PAHs

Confirmed COC: 30004-NO, 30006-NO, 30007-NO, 30008-NO, 30010-NO, 30019-NO, 30024-NO, 30025-NO, 30468-NO, 30470-NO, 30309-NO, 30313-NO, 30314-NO, 30315-NO, 30316-NO, 30207-NO, 30467-NO, 30469-NO, 30400-NO, 30261-NO, 30043-NO, 30308-NO, 30018-NO, 30023-NO

Potential Description: SOIL

Alias Name: AGRI-EMPIRE

Alias Type: Alternate Name

Alias Name: HIGH SCHOOL NO. 3

Alias Type: Alternate Name

Alias Name: PERRIS UNION HIGH SCHOOL DISTRICT

Alias Type: Alternate Name

Alias Name: PERRIS UNION HSD-PROPOSED HIGH SCHOOL #3

Alias Type: Alternate Name

Alias Name: 404438

Alias Type: Project Code (Site Code)

Alias Name: 33010072

Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not Reported

Completed Document Type: Environmental Oversight Agreement

Completed Date: 03/19/2003

Comments: Not Reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not Reported

Completed Document Type: Preliminary Endangerment Assessment Report

Completed Date: 09/15/2004

Comments: Not Reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not Reported

Completed Document Type: * Workplan

Completed Date: 12/29/2003

Comments: Not Reported

Completed Area Name: PROJECT WIDE

Completed Sub Area Name: Not Reported

Completed Document Type: Phase 1

MAP FINDINGS

HIGH SCHOOL NO. 3, BRIGGS ROAD/PINACATE ROAD, ROMOLAND, CA 92585 (Continued)

Completed Date:	03/02/2003
Comments:	Phase 1 Draft
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	01/12/2005
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

ENVIROSTOR: State and tribal - equivalent CERCLIS



Facility ID:	33010072
Status:	No Further Action
Status Date:	03/19/2003
Site Code:	404438
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	60
NPL:	NO
Regulatory Agencies:	DTSC
Lead Agency:	DTSC
Program Manager:	Not Reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	67
Senate:	23
Special Program:	Not Reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	33.74451
Longitude:	-117.1718
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	Aldrin Chlordane DDD DDE DDT Dieldrin Endosulfan Endrin HCH (alpha HCH (beta HCH (gamma) Lindane HCH-technical Heptachlor Heptachlor epoxide Mirex Toxaphene TPH-diesel TPH-gas PCBs (unspeciated mixture, high risk, e.g. Aroclor 1254 PCBs (unspeciated mixture, low risk, e.g. Aroclor 1016 Polybrominated biphenyls Polychlorinated biphenyls (PCBs Polychlorinated biphenyls (PCBs, see IRIS Polynuclear aromatic

MAP FINDINGS

HIGH SCHOOL NO. 3, BRIGGS ROAD/PINACATE ROAD, ROMOLAND, CA 92585 (Continued)

	hydrocarbons (PAHs)
Confirmed COC:	30004-NO 30006-NO 30007-NO 30008-NO 30010-NO 30019-NO 30024-NO 30025-NO 30468-NO 30470-NO 30309-NO 30313-NO 30314-NO 30315-NO 30316-NO 30207-NO 30467-NO 30469-NO 30400-NO 30261-NO 30043-NO 30308-NO 30018-NO 30023-NO
Potential Description:	SOIL
Alias Name:	AGRI-EMPIRE
Alias Type:	Alternate Name
Alias Name:	HIGH SCHOOL NO. 3
Alias Type:	Alternate Name
Alias Name:	PERRIS UNION HIGH SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	PERRIS UNION HSD-PROPOSED HIGH SCHOOL #3
Alias Type:	Alternate Name
Alias Name:	404438
Alias Type:	Project Code (Site Code)
Alias Name:	33010072
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	03/19/2003
Comments:	Not Reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	09/15/2004
Comments:	Not Reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	* Workplan
Completed Date:	12/29/2003
Comments:	Not Reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Phase 1
Completed Date:	03/02/2003
Comments:	Phase 1 Draft
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	01/12/2005
Comments:	Not Reported
Future Area Name:	Not Reported

MAP FINDINGS

HIGH SCHOOL NO. 3, BRIGGS ROAD/PINACATE ROAD, ROMOLAND, CA 92585 (Continued)

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

RECORD SOURCES AND CURRENCY

To maintain currency of the following databases, EDR contacts the appropriate 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

PRP: Potentially Responsible Parties

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013

Source: EPA

Number of Days to Update: 3

Telephone: 202-564-6023

Last EDR Contact :02/10/2017

RMP: Risk Management Plans

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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: 08/01/2016

Source: Environmental Protection Agency

Number of Days to Update: 81

Telephone: 202-564-8600

Last EDR Contact :01/23/2017

ALAMEDA CO. UST: Underground Tanks

Standard Environmental Record Source: State and tribal registered storage tank lists

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/10/2016

Source: Alameda County Environmental Health Services

Number of Days to Update: 90

Telephone: 510-567-6700

Last EDR Contact :01/09/2017

AST: Aboveground Petroleum Storage Tank Facilities

Standard Environmental Record Source: State and tribal registered storage tank lists

Search Distance: Property

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016

Source: California Environmental Protection Agency

Number of Days to Update: 69

Telephone: 916-327-5092

Last EDR Contact :03/24/2017

Alameda County CS: Contaminated Sites

Standard Environmental Record Source: State and tribal leaking storage tank lists

Search Distance: 0.333 Mile

RECORD SOURCES AND CURRENCY

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: 10/12/2016

Source: Alameda County Environmental Health Services

Number of Days to Update: 35

Telephone: 510-567-6700

Last EDR Contact :01/06/2017

BROWNFIELDS: Considered Brownfields Sites Listing

Standard Environmental Record Source: State and tribal Brownfields sites

Search Distance: 0.333 Mile

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: 01/03/2017

Source: State Water Resources Control Board

Number of Days to Update: 57

Telephone: 916-323-7905

Last EDR Contact :01/04/2017

CA BOND EXP. PLAN: Bond Expenditure Plan

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

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

Source: Department of Health Services

Number of Days to Update: 6

Telephone: 916-255-2118

Last EDR Contact :05/31/1994

CA FID UST: Facility Inventory Database

Standard Environmental Record Source: State and tribal registered storage tank lists

Search Distance: Property

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

Source: California Environmental Protection Agency

Number of Days to Update: 24

Telephone: 916-341-5851

Last EDR Contact :12/28/1998

CA LA LF: City of Los Angeles Landfills

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016

Source: Engineering & Construction Division

Number of Days to Update: 56

Telephone: 213-473-7869

Last EDR Contact :01/17/2017

CDL: Clandestine Drug Labs

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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: 08/31/2016

Source: Department of Toxic Substances Control

RECORD SOURCES AND CURRENCY

Number of Days to Update: 34
Last EDR Contact :03/06/2017

Telephone: 916-255-6504

CHMIRS: California Hazardous Material Incident Report System

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/26/2016
Number of Days to Update: 83
Last EDR Contact :01/25/2017

Source: Office of Emergency Services
Telephone: 916-845-8400

CONTRA COSTA CO. SITE LIST: Site List

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.25 Mile

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/17/2016
Number of Days to Update: 65
Last EDR Contact :01/30/2017

Source: Contra Costa Health Services Department
Telephone: 925-646-2286

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

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: 12/28/2016
Number of Days to Update: 64
Last EDR Contact :12/28/2016

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400

CUPA AMADOR: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
Cupa Facility List

Date of Government Version: 11/10/2016
Number of Days to Update: 9
Last EDR Contact :03/06/2017

Source: Amador County Environmental Health
Telephone: 209-223-6439

CUPA BUTTE: CUPA Facility Listing

Standard Environmental Record Source: Other Standard Environmental Records
Cupa facility list.

Date of Government Version: 10/21/2016
Number of Days to Update: 23
Last EDR Contact :01/23/2017

Source: Public Health Department
Telephone: 530-538-7149

CUPA CALVERAS: CUPA Facility Listing

Standard Environmental Record Source: Other Standard Environmental Records
Cupa Facility Listing

Date of Government Version: 01/09/2017

Source: Calveras County Environmental Health

RECORD SOURCES AND CURRENCY

Number of Days to Update: 50
Last EDR Contact :03/27/2017

Telephone: 209-754-6399

CUPA COLUSA: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
Cupa facility list.

Date of Government Version: 09/02/2016
Number of Days to Update: 38
Last EDR Contact :02/21/2017

Source: Health & Human Services
Telephone: 530-458-0396

CUPA DEL NORTE: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
Cupa Facility list

Date of Government Version: 11/01/2016
Number of Days to Update: 19
Last EDR Contact :01/30/2017

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426

CUPA EL DORADO: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
CUPA facility list.

Date of Government Version: 11/22/2016
Number of Days to Update: 55
Last EDR Contact :01/30/2017

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623

CUPA FRESNO: CUPA Resources List

Standard Environmental Record Source: Other Standard Environmental Records

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: 01/09/2017
Number of Days to Update: 50
Last EDR Contact :01/03/2017

Source: Dept. of Community Health
Telephone: 559-445-3271

CUPA HUMBOLDT: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
CUPA facility list.

Date of Government Version: 01/04/2017
Number of Days to Update: 51
Last EDR Contact :02/21/2017

Source: Humboldt County Environmental Health
Telephone: Not Reported

CUPA IMPERIAL: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
Cupa facility list.

Date of Government Version: 01/23/2017
Number of Days to Update: 36
Last EDR Contact :01/23/2017

Source: San Diego Border Field Office
Telephone: 760-339-2777

CUPA INYO: CUPA Facility List

RECORD SOURCES AND CURRENCY

Standard Environmental Record Source: Other Standard Environmental Records
Cupa facility list.

Date of Government Version: 09/10/2013
Number of Days to Update: 33
Last EDR Contact :03/06/2017

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238

CUPA KINGS: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records

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: 12/14/2016
Number of Days to Update: 6
Last EDR Contact :03/06/2017

Source: Kings County Department of Public Health
Telephone: 559-584-1411

CUPA LAKE: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
Cupa facility list

Date of Government Version: 01/18/2017
Number of Days to Update: 41
Last EDR Contact :01/17/2017

Source: Lake County Environmental Health
Telephone: 707-263-1164

CUPA MADERA: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records

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: 12/05/2016
Number of Days to Update: 41
Last EDR Contact :02/21/2017

Source: Madera County Environmental Health
Telephone: 559-675-7823

CUPA MERCED: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
CUPA facility list.

Date of Government Version: 12/02/2016
Number of Days to Update: 42
Last EDR Contact :02/21/2017

Source: Merced County Environmental Health
Telephone: 209-381-1094

CUPA MONO: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
CUPA Facility List

Date of Government Version: 11/29/2016
Number of Days to Update: 17
Last EDR Contact :02/24/2017

Source: Mono County Health Department
Telephone: 760-932-5580

CUPA MONTEREY: CUPA Facility Listing

Standard Environmental Record Source: Other Standard Environmental Records

RECORD SOURCES AND CURRENCY

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Number of Days to Update: 43
Last EDR Contact :02/21/2017

Source: Monterey County Health Department
Telephone: 831-796-1297

CUPA NEVADA: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
CUPA facility list.

Date of Government Version: 11/07/2016
Number of Days to Update: 44
Last EDR Contact :01/30/2017

Source: Community Development Agency
Telephone: 530-265-1467

CUPA SAN LUIS OBISPO: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
Cupa Facility List.

Date of Government Version: 11/17/2016
Number of Days to Update: 59
Last EDR Contact :02/21/2017

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596

CUPA SANTA BARBARA: CUPA Facility Listing

Standard Environmental Record Source: Other Standard Environmental Records
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Number of Days to Update: 28
Last EDR Contact :02/21/2017

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167

CUPA SANTA CLARA: Cupa Facility List

Standard Environmental Record Source: Other Standard Environmental Records
Cupa facility list

Date of Government Version: 11/16/2016
Number of Days to Update: 59
Last EDR Contact :02/21/2017

Source: Department of Environmental Health
Telephone: 408-918-1973

CUPA SANTA CRUZ: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
CUPA facility listing.

Date of Government Version: 11/16/2016
Number of Days to Update: 59
Last EDR Contact :02/21/2017

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761

CUPA SHASTA: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records
Cupa Facility List.

Date of Government Version: 12/13/2016
Number of Days to Update: 76
Last EDR Contact :02/21/2017

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789

RECORD SOURCES AND CURRENCY

CUPA SONOMA: Cupa Facility List

Standard Environmental Record Source: Other Standard Environmental Records

Cupa Facility list

Date of Government Version: 12/22/2016

Number of Days to Update: 65

Last EDR Contact :03/27/2017

Source: County of Sonoma Fire & Emergency Services Department

Telephone: 707-565-1174

CUPA TUOLUMNE: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records

Cupa facility list

Date of Government Version: 01/25/2017

Number of Days to Update: 34

Last EDR Contact :01/23/2017

Source: Divison of Environmental Health

Telephone: 209-533-5633

CUPA YUBA: CUPA Facility List

Standard Environmental Record Source: Other Standard Environmental Records

CUPA facility listing for Yuba County.

Date of Government Version: 10/28/2016

Number of Days to Update: 42

Last EDR Contact :01/30/2017

Source: Yuba County Environmental Health Department

Telephone: 530-749-7523

DEED: Deed Restriction Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

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: 12/06/2016

Number of Days to Update: 45

Last EDR Contact :03/07/2017

Source: DTSC and SWRCB

Telephone: 916-323-3400

DRYCLEANERS: Cleaner Facilities

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.25 Mile

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: 09/02/2016

Number of Days to Update: 79

Last EDR Contact :03/27/2017

Source: Department of Toxic Substance Control

Telephone: 916-327-4498

EL SEGUNDO UST: City of El Segundo Underground Storage Tank

Standard Environmental Record Source: State and tribal registered storage tank lists

RECORD SOURCES AND CURRENCY

Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015

Source: City of El Segundo Fire Department

Number of Days to Update: 11

Telephone: 310-524-2236

Last EDR Contact :01/17/2017

EMI: Emissions Inventory Data

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014

Source: California Air Resources Board

Number of Days to Update: 31

Telephone: 916-322-2990

Last EDR Contact :03/21/2017

ENF: Enforcement Action Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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: 12/06/2016

Source: State Water Resources Control Board

Number of Days to Update: 40

Telephone: 916-445-9379

Last EDR Contact :01/23/2017

ENVIROSTOR: EnviroStor Database

Standard Environmental Record Source: State and tribal - equivalent CERCLIS

Search Distance: 0.333 Mile

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/31/2016

Source: Department of Toxic Substances Control

Number of Days to Update: 78

Telephone: 916-323-3400

Last EDR Contact :01/31/2017

HAULERS: Registered Waste Tire Haulers Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of registered waste tire haulers.

Date of Government Version: 08/25/2016

Source: Integrated Waste Management Board

Number of Days to Update: 49

Telephone: 916-341-6422

Last EDR Contact :02/13/2017

HAZNET: Facility and Manifest Data

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

RECORD SOURCES AND CURRENCY

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: 12/31/2015

Source: California Environmental Protection Agency

Number of Days to Update: 64

Telephone: 916-255-1136

Last EDR Contact :01/09/2017

HIST CAL-SITES: Calsites Database

Standard Environmental Record Source: State and tribal - equivalent CERCLIS

Search Distance: 0.333 Mile

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

Source: Department of Toxic Substance Control

Number of Days to Update: 21

Telephone: 916-323-3400

Last EDR Contact :02/23/2009

HIST CORTESE: Hazardous Waste & Substance Site List

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

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

Source: Department of Toxic Substances Control

Number of Days to Update: 76

Telephone: 916-323-3400

Last EDR Contact :01/22/2009

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report

Standard Environmental Record Source: State and tribal leaking storage tank lists

Search Distance: 0.333 Mile

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

Source: Santa Clara Valley Water District

Number of Days to Update: 22

Telephone: 408-265-2600

Last EDR Contact :03/23/2009

HIST UST: Hazardous Substance Storage Container Database

Standard Environmental Record Source: State and tribal registered storage tank lists

Search Distance: Property

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

Source: State Water Resources Control Board

Number of Days to Update: 18

Telephone: 916-341-5851

Last EDR Contact :07/26/2001

HWP: EnviroStor Permitted Facilities Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

RECORD SOURCES AND CURRENCY

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/21/2016
Number of Days to Update: 62
Last EDR Contact :02/22/2017

Source: Department of Toxic Substances Control
Telephone: 916-323-3400

HWT: Registered Hazardous Waste Transporter Database

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

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: 10/12/2016
Number of Days to Update: 64
Last EDR Contact :01/11/2017

Source: Department of Toxic Substances Control
Telephone: 916-440-7145

KERN CO. UST: Underground Storage Tank Sites & Tank Listing

Standard Environmental Record Source: State and tribal registered storage tank lists
Kern County Sites and Tanks Listing.

Date of Government Version: 11/07/2016
Number of Days to Update: 63
Last EDR Contact :02/06/2017

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700

LA Co. Site Mitigation: Site Mitigation List

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Number of Days to Update: 68
Last EDR Contact :01/17/2017

Source: Community Health Services
Telephone: 323-890-7806

LDS: Land Disposal Sites Listing

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Number of Days to Update: 37
Last EDR Contact :03/14/2017

Source: State Water Quality Control Board
Telephone: 866-480-1028

LIENS: Environmental Liens Listing

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 11/29/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400

RECORD SOURCES AND CURRENCY

Last EDR Contact :03/06/2017

LONG BEACH UST: City of Long Beach Underground Storage Tank

Standard Environmental Record Source: State and tribal registered storage tank lists
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015

Source: City of Long Beach Fire Department

Number of Days to Update: 34

Telephone: 562-570-2563

Last EDR Contact :01/23/2017

LOS ANGELES CO. HMS: HMS: Street Number List

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/14/2016

Source: Department of Public Works

Number of Days to Update: 66

Telephone: 626-458-3517

Last EDR Contact :01/23/2017

LOS ANGELES CO. LF: List of Solid Waste Facilities

Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/17/2016

Source: La County Department of Public Works

Number of Days to Update: 58

Telephone: 818-458-5185

Last EDR Contact :01/18/2017

LUST: Geotracker's Leaking Underground Fuel Tank Report

Standard Environmental Record Source: State and tribal leaking storage tank lists
Search Distance: 0.333 Mile

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016

Source: State Water Resources Control Board

Number of Days to Update: 37

Telephone: see region list

Last EDR Contact :03/14/2017

LUST REG 1: Active Toxic Site Investigation

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: California Regional Water Quality Control Board North Coast (1)

Number of Days to Update: 29

Telephone: 707-570-3769

Last EDR Contact :08/01/2011

LUST REG 2: Fuel Leak List

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)

RECORD SOURCES AND CURRENCY

Number of Days to Update: 30
Last EDR Contact :09/19/2011

Telephone: 510-622-2433

LUST REG 3: Leaking Underground Storage Tank Database

Standard Environmental Record Source: State and tribal leaking storage tank lists

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003

Source: California Regional Water Quality Control Board Central Coast Region (3)

Number of Days to Update: 14

Telephone: 805-542-4786

Last EDR Contact :07/18/2011

LUST REG 4: Underground Storage Tank Leak List

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: California Regional Water Quality Control Board Los Angeles Region (4)

Number of Days to Update: 35

Telephone: 213-576-6710

Last EDR Contact :09/06/2011

LUST REG 5: Leaking Underground Storage Tank Database

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: California Regional Water Quality Control Board Central Valley Region (5)

Number of Days to Update: 9

Telephone: 916-464-4834

Last EDR Contact :07/01/2011

LUST REG 6L: Leaking Underground Storage Tank Case Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003

Source: California Regional Water Quality Control Board Lahontan Region (6)

Number of Days to Update: 27

Telephone: 530-542-5572

Last EDR Contact :09/12/2011

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005

Source: California Regional Water Quality Control Board Victorville Branch Office (6)

Number of Days to Update: 22

Telephone: 760-241-7365

Last EDR Contact :09/12/2011

LUST REG 7: Leaking Underground Storage Tank Case Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

RECORD SOURCES AND CURRENCY

Date of Government Version: 02/26/2004

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)

Number of Days to Update: 27

Telephone: 760-776-8943

Last EDR Contact :08/01/2011

LUST REG 8: Leaking Underground Storage Tanks

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: California Regional Water Quality Control Board Santa Ana Region (8)

Number of Days to Update: 41

Telephone: 909-782-4496

Last EDR Contact :08/15/2011

LUST REG 9: Leaking Underground Storage Tank Report

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: California Regional Water Quality Control Board San Diego Region (9)

Number of Days to Update: 28

Telephone: 858-637-5595

Last EDR Contact :09/26/2011

LUST SANTA CLARA: LOP Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014

Source: Department of Environmental Health

Number of Days to Update: 13

Telephone: 408-918-3417

Last EDR Contact :02/24/2017

MARIN CO. UST: Underground Storage Tank Sites

Standard Environmental Record Source: State and tribal registered storage tank lists

Currently permitted USTs in Marin County.

Date of Government Version: 10/19/2016

Source: Public Works Department Waste Management

Number of Days to Update: 79

Telephone: 415-499-6647

Last EDR Contact :01/17/2017

MCS: Military Cleanup Sites Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016

Source: State Water Resources Control Board

Number of Days to Update: 37

Telephone: 866-480-1028

Last EDR Contact :03/14/2017

MED WASTE VENTURA: Medical Waste Program List

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

RECORD SOURCES AND CURRENCY

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: 09/26/2016
Number of Days to Update: 89
Last EDR Contact :01/23/2017

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813

MINES: Mines Site Location Listing

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/12/2016
Number of Days to Update: 30
Last EDR Contact :03/13/2017

Source: Department of Conservation
Telephone: 916-322-1080

MWMP: Medical Waste Management Program Listing

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

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: 12/02/2016
Number of Days to Update: 86
Last EDR Contact :03/07/2017

Source: Department of Public Health
Telephone: 916-558-1784

NAPA CO. LUST: Sites With Reported Contamination

Standard Environmental Record Source: State and tribal leaking storage tank lists
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Number of Days to Update: 50
Last EDR Contact :03/09/2017

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

NAPA CO. UST: Closed and Operating Underground Storage Tank Sites

Standard Environmental Record Source: State and tribal registered storage tank lists
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Number of Days to Update: 23
Last EDR Contact :03/09/2017

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269

NOTIFY 65: Proposition 65 Records

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

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: 12/16/2016
Number of Days to Update: 70
Last EDR Contact :03/20/2017

Source: State Water Resources Control Board
Telephone: 916-445-3846

RECORD SOURCES AND CURRENCY

NPDES: NPDES Permits Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/14/2016

Source: State Water Resources Control Board

Number of Days to Update: 107

Telephone: 916-445-9379

Last EDR Contact :02/15/2017

ORANGE CO. LUST: List of Underground Storage Tank Cleanups

Standard Environmental Record Source: State and tribal leaking storage tank lists

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/04/2016

Source: Health Care Agency

Number of Days to Update: 73

Telephone: 714-834-3446

Last EDR Contact :02/06/2017

ORANGE CO. UST: List of Underground Storage Tank Facilities

Standard Environmental Record Source: State and tribal registered storage tank lists

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/03/2016

Source: Health Care Agency

Number of Days to Update: 65

Telephone: 714-834-3446

Last EDR Contact :02/07/2017

Orange Co. Industrial Site: List of Industrial Site Cleanups

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Petroleum and non-petroleum spills.

Date of Government Version: 11/03/2016

Source: Health Care Agency

Number of Days to Update: 73

Telephone: 714-834-3446

Last EDR Contact :02/06/2017

PEST LIC: Pesticide Regulation Licenses Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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: 12/06/2016

Source: Department of Pesticide Regulation

Number of Days to Update: 87

Telephone: 916-445-4038

Last EDR Contact :03/07/2017

PLACER CO. MS: Master List of Facilities

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/02/2016

Source: Placer County Health and Human Services

Number of Days to Update: 38

Telephone: 530-745-2363

RECORD SOURCES AND CURRENCY

Last EDR Contact :03/06/2017

PROC: Certified Processors Database

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

A listing of certified processors.

Date of Government Version: 12/12/2016

Source: Department of Conservation

Number of Days to Update: 78

Telephone: 916-323-3836

Last EDR Contact :03/14/2017

RESPONSE: State Response Sites

Standard Environmental Record Source: State and tribal - equivalent NPL

Search Distance: 0.333 Mile

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: 10/31/2016

Source: Department of Toxic Substances Control

Number of Days to Update: 78

Telephone: 916-323-3400

Last EDR Contact :01/31/2017

RIVERSIDE CO. LUST: Listing of Underground Tank Cleanup Sites

Standard Environmental Record Source: State and tribal leaking storage tank lists

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/19/2017

Source: Department of Environmental Health

Number of Days to Update: 36

Telephone: 951-358-5055

Last EDR Contact :03/20/2017

RIVERSIDE CO. UST: Underground Storage Tank Tank List

Standard Environmental Record Source: State and tribal registered storage tank lists

Underground storage tank sites located in Riverside county.

Date of Government Version: 10/20/2016

Source: Department of Environmental Health

Number of Days to Update: 77

Telephone: 951-358-5055

Last EDR Contact :03/20/2017

SAN DIEGO CO. HMMD: Hazardous Materials Management Division Database

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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: 10/05/2016

Source: Hazardous Materials Management Division

Number of Days to Update: 86

Telephone: 619-338-2268

Last EDR Contact :03/10/2017

SAN DIEGO CO. LF: Solid Waste Facilities

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

RECORD SOURCES AND CURRENCY

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015

Source: Department of Health Services

Number of Days to Update: 58

Telephone: 619-338-2209

Last EDR Contact :01/23/2017

SAN DIEGO CO. SAM: Environmental Case Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

Search Distance: 0.333 Mile

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

Source: San Diego County Department of Environmental Health

Number of Days to Update: 24

Telephone: 619-338-2371

Last EDR Contact :03/06/2017

SAN FRANCISCO CO. LUST: Local Oversight Facilities

Standard Environmental Record Source: State and tribal leaking storage tank lists

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008

Source: Department Of Public Health San Francisco County

Number of Days to Update: 10

Telephone: 415-252-3920

Last EDR Contact :02/03/2017

SAN FRANCISCO CO. UST: Underground Storage Tank Information

Standard Environmental Record Source: State and tribal registered storage tank lists

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/16/2016

Source: Department of Public Health

Number of Days to Update: 52

Telephone: 415-252-3920

Last EDR Contact :02/21/2017

SAN JOSE HAZMAT: Hazardous Material Facilities

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/07/2016

Source: City of San Jose Fire Department

Number of Days to Update: 75

Telephone: 408-535-7694

Last EDR Contact :02/06/2017

SAN MATEO CO. LUST: Fuel Leak List

Standard Environmental Record Source: State and tribal leaking storage tank lists

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2016

Source: San Mateo County Environmental Health Services Division

Number of Days to Update: 76

Telephone: 650-363-1921

Last EDR Contact :03/27/2017

SCH: School Property Evaluation Program

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

RECORD SOURCES AND CURRENCY

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: 10/31/2016
Number of Days to Update: 78
Last EDR Contact :01/31/2017

Source: Department of Toxic Substances Control
Telephone: 916-323-3400

SLIC: Statewide SLIC Cases

Standard Environmental Record Source: State and tribal leaking storage tank lists
Search Distance: 0.333 Mile

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Number of Days to Update: 40
Last EDR Contact :03/14/2017

Source: State Water Resources Control Board
Telephone: 866-480-1028

SLIC REG 1: Active Toxic Site Investigations

Standard Environmental Record Source: State and tribal leaking storage tank lists

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
Number of Days to Update: 18
Last EDR Contact :08/01/2011

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

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
Number of Days to Update: 30
Last EDR Contact :09/19/2011

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

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
Number of Days to Update: 28
Last EDR Contact :07/18/2011

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: Region Water Quality Control Board Los Angeles Region (4)

RECORD SOURCES AND CURRENCY

Number of Days to Update: 47
Last EDR Contact :07/01/2011

Telephone: 213-576-6600

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: Regional Water Quality Control Board Central Valley Region (5)

Number of Days to Update: 16

Telephone: 916-464-3291

Last EDR Contact :09/12/2011

SLIC REG 6L: SLIC Sites

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: California Regional Water Quality Control Board, Lahontan Region

Number of Days to Update: 35

Telephone: 530-542-5574

Last EDR Contact :08/15/2011

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: Regional Water Quality Control Board, Victorville Branch

Number of Days to Update: 22

Telephone: 619-241-6583

Last EDR Contact :08/15/2011

SLIC REG 7: SLIC List

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: California Regional Quality Control Board, Colorado River Basin Region

Number of Days to Update: 36

Telephone: 760-346-7491

Last EDR Contact :08/01/2011

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

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

Source: California Region Water Quality Control Board Santa Ana Region (8)

Number of Days to Update: 11

Telephone: 951-782-3298

Last EDR Contact :09/12/2011

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

Standard Environmental Record Source: State and tribal leaking storage tank lists

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

RECORD SOURCES AND CURRENCY

Date of Government Version: 09/10/2007

Source: California Regional Water Quality Control Board San Diego Region (9)

Number of Days to Update: 17

Telephone: 858-467-2980

Last EDR Contact :08/08/2011

SOLANO CO. LUST: Leaking Underground Storage Tanks

Standard Environmental Record Source: State and tribal leaking storage tank lists

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016

Source: Solano County Department of Environmental Management

Number of Days to Update: 1

Telephone: 707-784-6770

Last EDR Contact :03/09/2017

SOLANO CO. UST: Underground Storage Tanks

Standard Environmental Record Source: State and tribal registered storage tank lists

Underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016

Source: Solano County Department of Environmental Management

Number of Days to Update: 19

Telephone: 707-784-6770

Last EDR Contact :03/09/2017

SONOMA CO. LUST: Leaking Underground Storage Tank Sites

Standard Environmental Record Source: State and tribal leaking storage tank lists

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/04/2017

Source: Department of Health Services

Number of Days to Update: 55

Telephone: 707-565-6565

Last EDR Contact :03/27/2017

SUTTER CO. UST: Underground Storage Tanks

Standard Environmental Record Source: State and tribal registered storage tank lists

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/02/2016

Source: Sutter County Department of Agriculture

Number of Days to Update: 35

Telephone: 530-822-7500

Last EDR Contact :03/06/2017

SWEEPS UST: SWEEPS UST Listing

Standard Environmental Record Source: State and tribal registered storage tank lists

Search Distance: Property

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

Source: State Water Resources Control Board

Number of Days to Update: 35

Telephone: Not Reported

Last EDR Contact :06/03/2005

SWF/LF (SWIS): Solid Waste Information System

Standard Environmental Record Source: State and tribal landfill / solid waste disposal

Search Distance: 0.333 Mile

RECORD SOURCES AND CURRENCY

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/14/2016
Number of Days to Update: 66
Last EDR Contact :02/15/2017

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320

SWRCY: Recycler Database

Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Search Distance: 0.333 Mile

A listing of recycling facilities in California.

Date of Government Version: 12/12/2016
Number of Days to Update: 78
Last EDR Contact :03/14/2017

Source: Department of Conservation
Telephone: 916-323-3836

Sacramento Co. CS: Toxic Site Clean-Up List

Standard Environmental Record Source: State and tribal leaking storage tank lists
Search Distance: 0.333 Mile

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2016
Number of Days to Update: 56
Last EDR Contact :01/05/2017

Source: Sacramento County Environmental Management
Telephone: 916-875-8406

Sacramento Co. ML: Master Hazardous Materials Facility List

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/08/2016
Number of Days to Update: 56
Last EDR Contact :01/05/2017

Source: Sacramento County Environmental Management
Telephone: 916-875-8406

San Bern. Co. Permit: Hazardous Material Permits

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

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: 12/09/2016
Number of Days to Update: 80
Last EDR Contact :02/06/2017

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041

San Mateo Co. BI: Business Inventory

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.25 Mile

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

RECORD SOURCES AND CURRENCY

Date of Government Version: 06/02/2016
Number of Days to Update: 15
Last EDR Contact :03/09/2017

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921

TORRANCE UST: City of Torrance Underground Storage Tank

Standard Environmental Record Source: State and tribal registered storage tank lists
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/04/2016
Number of Days to Update: 93
Last EDR Contact :01/09/2017

Source: City of Torrance Fire Department
Telephone: 310-618-2973

TOXIC PITS: Toxic Pits Cleanup Act Sites

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

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
Number of Days to Update: 27
Last EDR Contact :01/26/2009

Source: State Water Resources Control Board
Telephone: 916-227-4364

UIC: UIC Listing

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 07/06/2016
Number of Days to Update: 30
Last EDR Contact :03/14/2017

Source: Department of Conservation
Telephone: 916-445-2408

UST: Active UST Facilities

Standard Environmental Record Source: State and tribal registered storage tank lists
Search Distance: Property

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/12/2016
Number of Days to Update: 30
Last EDR Contact :03/16/2017

Source: SWRCB
Telephone: 916-341-5851

UST MENDOCINO: Mendocino County UST Database

Standard Environmental Record Source: State and tribal registered storage tank lists
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/01/2016
Number of Days to Update: 35
Last EDR Contact :02/27/2017

Source: Department of Public Health
Telephone: 707-463-4466

UST SAN JOAQUIN: San Joaquin Co. UST

Standard Environmental Record Source: State and tribal registered storage tank lists
A listing of underground storage tank locations in San Joaquin county.

RECORD SOURCES AND CURRENCY

Date of Government Version: 12/21/2016
Number of Days to Update: 49
Last EDR Contact :03/20/2017

Source: Environmental Health Department
Telephone: Not Reported

VCP: Voluntary Cleanup Program Properties

Standard Environmental Record Source: State and tribal voluntary cleanup sites
Search Distance: 0.333 Mile

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: 10/31/2016
Number of Days to Update: 78
Last EDR Contact :01/31/2017

Source: Department of Toxic Substances Control
Telephone: 916-323-3400

VENTURA CO. BWT: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

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: 09/26/2016
Number of Days to Update: 82
Last EDR Contact :01/23/2017

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813

VENTURA CO. LF: Inventory of Illegal Abandoned and Inactive Sites

Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Number of Days to Update: 49
Last EDR Contact :12/30/2016

Source: Environmental Health Division
Telephone: 805-654-2813

VENTURA CO. LUST: Listing of Underground Tank Cleanup Sites

Standard Environmental Record Source: State and tribal leaking storage tank lists
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Number of Days to Update: 37
Last EDR Contact :02/13/2017

Source: Environmental Health Division
Telephone: 805-654-2813

VENTURA CO. UST: Underground Tank Closed Sites List

Standard Environmental Record Source: State and tribal registered storage tank lists
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/28/2016
Number of Days to Update: 29
Last EDR Contact :03/15/2017

Source: Environmental Health Division
Telephone: 805-654-2813

WDS: Waste Discharge System

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Sites which have been issued waste discharge requirements.

RECORD SOURCES AND CURRENCY

Date of Government Version: 06/19/2007
Number of Days to Update: 9
Last EDR Contact :02/17/2017

Source: State Water Resources Control Board
Telephone: 916-341-5227

WIP: Well Investigation Program Case List

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Number of Days to Update: 13
Last EDR Contact :03/24/2017

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726

WMUDS/SWAT: Waste Management Unit Database

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

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
Number of Days to Update: 30
Last EDR Contact :02/03/2017

Source: State Water Resources Control Board
Telephone: 916-227-4448

YOLO CO. UST: Underground Storage Tank Comprehensive Facility Report

Standard Environmental Record Source: State and tribal registered storage tank lists
Underground storage tank sites located in Yolo county.

Date of Government Version: 11/14/2016
Number of Days to Update: 55
Last EDR Contact :01/03/2017

Source: Yolo County Department of Health
Telephone: 530-666-8646

2020 COR ACTION: 2020 Corrective Action Program List

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.25 Mile

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: 04/22/2013
Number of Days to Update: 6
Last EDR Contact :02/10/2017

Source: Environmental Protection Agency
Telephone: 703-308-4044

COAL ASH DOE: Steam-Electric Plant Operation Data

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005

Source: Department of Energy

RECORD SOURCES AND CURRENCY

Number of Days to Update: 76
Last EDR Contact :03/06/2017

Telephone: 202-586-8719

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Number of Days to Update: 40
Last EDR Contact :03/06/2017

Source: Environmental Protection Agency
Telephone: Not Reported

CONSENT: Superfund (CERCLA) Consent Decrees

Standard Environmental Record Source: Federal NPL
Search Distance: 0.333 Mile

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: 09/30/2016
Number of Days to Update: 77
Last EDR Contact :03/27/2017

Source: Department of Justice, Consent Decree Library
Telephone: Varies

CORRACTS: Corrective Action Report

Standard Environmental Record Source: Federal RCRA CORRACTS facilities list
Search Distance: 0.333 Mile

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/12/2016
Number of Days to Update: 44
Last EDR Contact :03/02/2017

Source: EPA
Telephone: 800-424-9346

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

Standard Environmental Record Source: State and tribal landfill / solid waste disposal
Search Distance: 0.333 Mile

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
Number of Days to Update: 137
Last EDR Contact :01/23/2017

Source: EPA, Region 9
Telephone: 415-947-4219

DOCKET HWC: Hazardous Waste Compliance Docket Listing

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016
Number of Days to Update: 91
Last EDR Contact :02/24/2017

Source: Environmental Protection Agency
Telephone: 202-564-0527

DOT OPS: Incident and Accident Data

Standard Environmental Record Source: Other Standard Environmental Records

RECORD SOURCES AND CURRENCY

Search Distance: Property

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012

Source: Department of Transportation, Office of Pipeline Safety

Number of Days to Update: 42

Telephone: 202-366-4595

Last EDR Contact :02/01/2017

Delisted NPL: National Priority List Deletions

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

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: 12/05/2016

Source: EPA

Number of Days to Update: 29

Telephone: Not Reported

Last EDR Contact :03/02/2017

ECHO: Enforcement & Compliance History Information

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 12/11/2016

Source: Environmental Protection Agency

Number of Days to Update: 59

Telephone: 202-564-2280

Last EDR Contact :03/21/2017

EPA WATCH LIST: EPA WATCH LIST

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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

Source: Environmental Protection Agency

Number of Days to Update: 88

Telephone: 617-520-3000

Last EDR Contact :02/03/2017

ERNS: Emergency Response Notification System

Standard Environmental Record Source: Federal ERNS list

Search Distance: Property

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/26/2016

Source: National Response Center, United States Coast Guard

Number of Days to Update: 43

Telephone: 202-267-2180

Last EDR Contact :12/28/2016

FEMA UST: Underground Storage Tank Listing

Standard Environmental Record Source: State and tribal registered storage tank lists

RECORD SOURCES AND CURRENCY

Search Distance: Property

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010

Source: FEMA

Number of Days to Update: 55

Telephone: 202-646-5797

Last EDR Contact :01/23/2017

FINDS: Facility Index System/Facility Registry System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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: 07/15/2016

Source: EPA

Number of Days to Update: 65

Telephone: Not Reported

Last EDR Contact :03/06/2017

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Number of Days to Update: 25

Telephone: 202-566-1667

Last EDR Contact :02/17/2017

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Standard Environmental Record Source: Other Standard Environmental Records

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009

Source: EPA

Number of Days to Update: 25

Telephone: 202-566-1667

Last EDR Contact :02/17/2017

FUDS: Formerly Used Defense Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

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: 01/31/2015

Source: U.S. Army Corps of Engineers

Number of Days to Update: 97

Telephone: 202-528-4285

Last EDR Contact :02/24/2017

FUELS PROGRAM: EPA Fuels Program Registered Listing

Standard Environmental Record Source: Other Standard Environmental Records

RECORD SOURCES AND CURRENCY

Search Distance: Property

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: 11/21/2016

Source: EPA

Number of Days to Update: 73

Telephone: 800-385-6164

Last EDR Contact :02/22/2017

FUSRAP: Formerly Utilized Sites Remedial Action Program

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

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: 12/23/2016

Source: Department of Energy

Number of Days to Update: 52

Telephone: 202-586-3559

Last EDR Contact :02/03/2017

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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

Source: Environmental Protection Agency

Number of Days to Update: 40

Telephone: 202-564-2501

Last EDR Contact :12/17/2007

HMIRS: Hazardous Materials Information Reporting System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/28/2016

Source: U.S. Department of Transportation

Number of Days to Update: 37

Telephone: 202-366-4555

Last EDR Contact :12/28/2016

ICIS: Integrated Compliance Information System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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

Source: Environmental Protection Agency

Number of Days to Update: 79

Telephone: 202-564-5088

Last EDR Contact :01/09/2017

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists

RECORD SOURCES AND CURRENCY

Search Distance: 0.333 Mile

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015

Source: EPA Region 1

Number of Days to Update: 67

Telephone: 617-918-1313

Last EDR Contact :01/26/2017

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016

Source: EPA Region 10

Number of Days to Update: 41

Telephone: 206-553-2857

Last EDR Contact :01/26/2017

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016

Source: EPA Region 4

Number of Days to Update: 35

Telephone: 404-562-8677

Last EDR Contact :01/24/2017

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016

Source: EPA, Region 5

Number of Days to Update: 37

Telephone: 312-886-7439

Last EDR Contact :01/26/2017

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015

Source: EPA Region 6

Number of Days to Update: 105

Telephone: 214-665-6597

Last EDR Contact :01/26/2017

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015

Source: EPA Region 7

Number of Days to Update: 112

Telephone: 913-551-7003

Last EDR Contact :01/26/2017

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015

Source: EPA Region 8

Number of Days to Update: 118

Telephone: 303-312-6271

RECORD SOURCES AND CURRENCY

Last EDR Contact :01/26/2017

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal leaking storage tank lists
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016

Source: Environmental Protection Agency

Number of Days to Update: 37

Telephone: 415-972-3372

Last EDR Contact :01/26/2017

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: 0.333 Mile

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998

Source: Environmental Protection Agency

Number of Days to Update: 52

Telephone: 703-308-8245

Last EDR Contact :10/31/2016

INDIAN UST R1: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists
Search Distance: Property

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015

Source: EPA, Region 1

Number of Days to Update: 67

Telephone: 617-918-1313

Last EDR Contact :01/26/2017

INDIAN UST R10: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

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: 01/07/2016

Source: EPA Region 10

Number of Days to Update: 41

Telephone: 206-553-2857

Last EDR Contact :01/26/2017

INDIAN UST R4: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

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: 02/05/2016

Source: EPA Region 4

Number of Days to Update: 35

Telephone: 404-562-9424

Last EDR Contact :01/24/2017

INDIAN UST R5: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

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: 11/05/2015

Source: EPA Region 5

RECORD SOURCES AND CURRENCY

Number of Days to Update: 52
Last EDR Contact :01/26/2017

Telephone: 312-886-6136

INDIAN UST R6: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

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: 12/03/2015
Number of Days to Update: 120
Last EDR Contact :01/26/2017

Source: EPA Region 6
Telephone: 214-665-7591

INDIAN UST R7: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

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: 09/23/2014
Number of Days to Update: 65
Last EDR Contact :01/26/2017

Source: EPA Region 7
Telephone: 913-551-7003

INDIAN UST R8: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

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: 01/26/2016
Number of Days to Update: 119
Last EDR Contact :01/26/2017

Source: EPA Region 8
Telephone: 303-312-6137

INDIAN UST R9: Underground Storage Tanks on Indian Land

Standard Environmental Record Source: State and tribal registered storage tank lists

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: 02/25/2016
Number of Days to Update: 37
Last EDR Contact :01/26/2017

Source: EPA Region 9
Telephone: 415-972-3368

INDIAN VCP R1: Voluntary Cleanup Priority Listing

Standard Environmental Record Source: State and tribal voluntary cleanup sites

Search Distance: Property

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Number of Days to Update: 142
Last EDR Contact :03/27/2017

Source: EPA, Region 1
Telephone: 617-918-1102

INDIAN VCP R7: Voluntary Cleanup Priority Listing

Standard Environmental Record Source: State and tribal voluntary cleanup sites

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365

RECORD SOURCES AND CURRENCY

Last EDR Contact :04/20/2009

LEAD SMELTER 1: Lead Smelter Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

A listing of former lead smelter site locations.

Date of Government Version: 12/05/2016

Source: Environmental Protection Agency

Number of Days to Update: 36

Telephone: 703-603-8787

Last EDR Contact :03/02/2017

LEAD SMELTER 2: Lead Smelter Sites

Standard Environmental Record Source: Other Standard Environmental Records

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 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

Source: American Journal of Public Health

Number of Days to Update: 36

Telephone: 703-305-6451

Last EDR Contact :12/02/2009

LIENS 2: CERCLA Lien Information

Standard Environmental Record Source: Federal CERCLIS

Search Distance: Property

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: 02/18/2014

Source: Environmental Protection Agency

Number of Days to Update: 37

Telephone: 202-564-6023

Last EDR Contact :01/24/2017

LUCIS: Land Use Control Information System

Standard Environmental Record Source: Federal institutional controls / engineering controls registries

Search Distance: 0.333 Mile

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015

Source: Department of the Navy

Number of Days to Update: 13

Telephone: 843-820-7326

Last EDR Contact :02/13/2017

MLTS: Material Licensing Tracking System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016

Source: Nuclear Regulatory Commission

Number of Days to Update: 43

Telephone: 301-415-7169

Last EDR Contact :02/03/2017

NPL: National Priority List

RECORD SOURCES AND CURRENCY

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

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: 12/05/2016

Source: EPA

Number of Days to Update: 29

Telephone: Not Reported

Last EDR Contact :03/02/2017

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-566-0690

EPA Region 1

Telephone: 617-918-1102

EPA Region 2

Telephone: 212-637-4293

EPA Region 3

Telephone: 215-814-5418

EPA Region 4

Telephone: 404-562-8681

EPA Region 5

Telephone: 312-353-1063

EPA Region 6

Telephone: 214-655-6659

EPA Region 7

Telephone: 913-551-7247

EPA Region 8

Telephone: 303-312-6118

EPA Region 9

Telephone: 415-947-4579

EPA Region 10

Telephone: 206-553-4479

NPL LIENS: Federal Superfund Liens

Standard Environmental Record Source: Federal NPL

Search Distance: Property

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

Source: EPA

Number of Days to Update: 56

Telephone: 202-564-4267

Last EDR Contact :08/15/2011

ODI: Open Dump Inventory

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

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.

RECORD SOURCES AND CURRENCY

Date of Government Version: 06/30/1985
Number of Days to Update: 39
Last EDR Contact :06/09/2004

Source: Environmental Protection Agency
Telephone: 800-424-9346

PADS: PCB Activity Database System

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

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: 01/20/2016
Number of Days to Update: 127
Last EDR Contact :01/13/2017

Source: EPA
Telephone: 202-566-0500

PCB TRANSFORMER: PCB Transformer Registration Database

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Number of Days to Update: 83
Last EDR Contact :01/29/2016

Source: Environmental Protection Agency
Telephone: 202-566-0517

Proposed NPL: Proposed National Priority List Sites

Standard Environmental Record Source: Federal NPL
Search Distance: 0.333 Mile

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: 12/05/2016
Number of Days to Update: 29
Last EDR Contact :03/02/2017

Source: EPA
Telephone: Not Reported

RAATS: RCRA Administrative Action Tracking System

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

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
Number of Days to Update: 35
Last EDR Contact :06/02/2008

Source: EPA
Telephone: 202-564-4104

RADINFO: Radiation Information Database

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

RECORD SOURCES AND CURRENCY

Date of Government Version: 01/04/2017

Source: Environmental Protection Agency

Number of Days to Update: 35

Telephone: 202-343-9775

Last EDR Contact :01/06/2017

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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: 12/12/2016

Source: Environmental Protection Agency

Number of Days to Update: 44

Telephone: 703-308-8895

Last EDR Contact :03/02/2017

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016

Source: Environmental Protection Agency

Number of Days to Update: 44

Telephone: 703-308-8895

Last EDR Contact :03/02/2017

RCRA-LQG: RCRA - Large Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

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: 12/12/2016

Source: Environmental Protection Agency

Number of Days to Update: 44

Telephone: 703-308-8895

Last EDR Contact :03/02/2017

RCRA-SQG: RCRA - Small Quantity Generators

Standard Environmental Record Source: Federal RCRA generators list

Search Distance: Property

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: 12/12/2016

Source: Environmental Protection Agency

Number of Days to Update: 44

Telephone: 703-308-8895

Last EDR Contact :03/02/2017

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RECORD SOURCES AND CURRENCY

Standard Environmental Record Source: Federal RCRA TSD facilities list

Search Distance: 0.333 Mile

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: 12/12/2016

Source: Environmental Protection Agency

Number of Days to Update: 44

Telephone: 703-308-8895

Last EDR Contact :03/02/2017

ROD: Records Of Decision

Standard Environmental Record Source: Federal NPL

Search Distance: 0.333 Mile

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: 11/25/2013

Source: EPA

Number of Days to Update: 74

Telephone: 703-416-0223

Last EDR Contact :03/06/2017

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

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: 03/07/2011

Source: Environmental Protection Agency

Number of Days to Update: 54

Telephone: 615-532-8599

Last EDR Contact :02/03/2017

SEMS: Superfund Enterprise Management System

Standard Environmental Record Source: Federal CERCLIS

Search Distance: 0.333 Mile

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 known 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: 10/10/2016

Source: EPA

Number of Days to Update: 78

Telephone: 800-424-9346

Last EDR Contact :03/02/2017

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

RECORD SOURCES AND CURRENCY

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: 10/10/2016

Source: EPA

Number of Days to Update: 78

Telephone: 800-424-9346

Last EDR Contact :03/02/2017

SSTS: Section 7 Tracking Systems

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009

Source: EPA

Number of Days to Update: 77

Telephone: 202-564-4203

Last EDR Contact :03/09/2017

TRIS: Toxic Chemical Release Inventory System

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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: 12/31/2014

Source: EPA

Number of Days to Update: 133

Telephone: 202-566-0250

Last EDR Contact :02/24/2017

TSCA: Toxic Substances Control Act

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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: 12/31/2012

Source: EPA

Number of Days to Update: 14

Telephone: 202-260-5521

Last EDR Contact :03/24/2017

UMTRA: Uranium Mill Tailings Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

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: 09/14/2010

Source: Department of Energy

Number of Days to Update: 146

Telephone: 505-845-0011

RECORD SOURCES AND CURRENCY

Last EDR Contact :02/21/2017

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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

Source: EPA

Number of Days to Update: 100

Telephone: 202-564-2496

Last EDR Contact :03/07/2017

US AIRS MINOR: Air Facility System Data

Standard Environmental Record Source: Other Standard Environmental Records

A listing of minor source facilities.

Date of Government Version: 10/12/2016

Source: EPA

Number of Days to Update: 100

Telephone: 202-564-2496

Last EDR Contact :03/07/2017

US BROWNFIELDS: A Listing of Brownfields Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/19/2016

Source: Environmental Protection Agency

Number of Days to Update: 52

Telephone: 202-566-2777

Last EDR Contact :03/02/2017

US CDL: Clandestine Drug Labs

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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: 09/30/2016

Source: Drug Enforcement Administration

Number of Days to Update: 67

Telephone: 202-307-1000

Last EDR Contact :02/28/2017

US ENG CONTROLS: Engineering Controls Sites List

Standard Environmental Record Source: Federal institutional controls / engineering controls registries

Search Distance: Property

RECORD SOURCES AND CURRENCY

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: 11/15/2016
Number of Days to Update: 66
Last EDR Contact :02/28/2017

Source: Environmental Protection Agency
Telephone: 703-603-0695

US FIN ASSUR: Financial Assurance Information

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

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: 10/11/2016
Number of Days to Update: 79
Last EDR Contact :02/15/2017

Source: Environmental Protection Agency
Telephone: 202-566-1917

US HIST CDL: National Clandestine Laboratory Register

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 09/30/2016
Number of Days to Update: 36
Last EDR Contact :02/28/2017

Source: Drug Enforcement Administration
Telephone: 202-307-1000

US INST CONTROL: Sites with Institutional Controls

Standard Environmental Record Source: Federal institutional controls / engineering controls registries
Search Distance: Property

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: 11/15/2016
Number of Days to Update: 66
Last EDR Contact :02/28/2017

Source: Environmental Protection Agency
Telephone: 703-603-0695

US MINES: Mines Master Index File

Standard Environmental Record Source: Other Standard Environmental Records
Search Distance: Property

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2016
Number of Days to Update: 22
Last EDR Contact :02/28/2017

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

Standard Environmental Record Source: Other Standard Environmental Records

RECORD SOURCES AND CURRENCY

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005

Source: USGS

Number of Days to Update: 49

Telephone: 703-648-7709

Last EDR Contact :03/03/2017

US MINES 3: Active Mines & Mineral Plants Database Listing

Standard Environmental Record Source: Other Standard Environmental Records

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

Source: USGS

Number of Days to Update: 97

Telephone: 703-648-7709

Last EDR Contact :03/03/2017

AOCONCERN: San Gabriel Valley Areas of Concern

Standard Environmental Record Source: State and tribal - equivalent CERCLIS

Search Distance: 0.333 Mile

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009

Source: EPA Region 9

Number of Days to Update: 206

Telephone: 415-972-3178

Last EDR Contact :03/20/2017

DOD: Department of Defense Sites

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: 0.333 Mile

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

Source: USGS

Number of Days to Update: 62

Telephone: 888-275-8747

Last EDR Contact :01/13/2017

INDIAN RESERV: Indian Reservations

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

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

Source: USGS

Number of Days to Update: N/A

Telephone: 202-208-3710

Last EDR Contact :01/13/2017

PWS: Public Water System Data

Standard Environmental Record Source: Other Standard Environmental Records

Search Distance: Property

This Safe Drinking Water Information System (SDWIS) file contains public water systems name and address, population served and the primary source of water

Date of Government Version: 12/17/2013

Source: EPA

Number of Days to Update: 279

Telephone: Not Reported

RECORD SOURCES AND CURRENCY

Last EDR Contact :02/27/2017

RECORD SOURCES AND CURRENCY

HISTORICAL USE RECORDS

RGA LF: Recovered Government Archive Solid Waste Facilities List

Standard Environmental Record Source: Exclusive Recovered Govt. Archives

Search Distance: Property

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: Not Reported

Source: Department of Resources Recycling and Recovery

Number of Days to Update: 196

Telephone: Not Reported

Last EDR Contact :06/01/2012

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

Standard Environmental Record Source: Exclusive Recovered Govt. Archives

Search Distance: Property

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: Not Reported

Source: State Water Resources Control Board

Number of Days to Update: 182

Telephone: Not Reported

Last EDR Contact :06/01/2012

EDR Hist Auto: EDR Exclusive Historic Gas Stations

Standard Environmental Record Source: Historical Gas Stations

Search Distance: 0.125 Mile

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: 02/20/2007

Source: EDR, Inc.

Number of Days to Update: 42

Telephone: Not Reported

Last EDR Contact :02/21/2007

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

Standard Environmental Record Source: Historical Dry Cleaners

Search Distance: 0.125 Mile

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: 02/20/2007

Source: EDR, Inc.

Number of Days to Update: 42

Telephone: Not Reported

Last EDR Contact :02/21/2007

EDR MGP: EDR Proprietary Manufactured Gas Plants

Standard Environmental Record Source: Former manufactured Gas Plants

Search Distance: 0.333 Mile

RECORD SOURCES AND CURRENCY

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: 08/28/2009

Source: EDR, Inc.

Number of Days to Update: 55

Telephone: Not Reported

Last EDR Contact :11/30/2012

RECORD SOURCES AND CURRENCY

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.

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 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW® 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

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services. 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 Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, 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.

STREET AND ADDRESS INFORMATION

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APPENDIX

E



MR 56

Northwest Corner of Highway 74 and Briggs Road

Sun City, CA 92585

Inquiry Number: 4891134.9

March 30, 2017

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

03/30/17

Site Name:

MR 56
Northwest Corner of Highway 7
Sun City, CA 92585
EDR Inquiry # 4891134.9

Client Name:

Geocon Env. Consultants, Inc.
41571 Corning Place
Murrieta, CA 92562
Contact: Alice Orton



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:

<i>Year</i>	<i>Scale</i>	<i>Details</i>	<i>Source</i>
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
2002	1"=500'	Acquisition Date: May 22, 2002	USGS/DOQQ
1996	1"=500'	Flight Date: January 01, 1996	USGS
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 09, 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 23, 1949	USDA
1938	1"=500'	Flight Date: June 14, 1938	USDA

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INQUIRY #: 4891134.9

YEAR: 2012

— = 500'



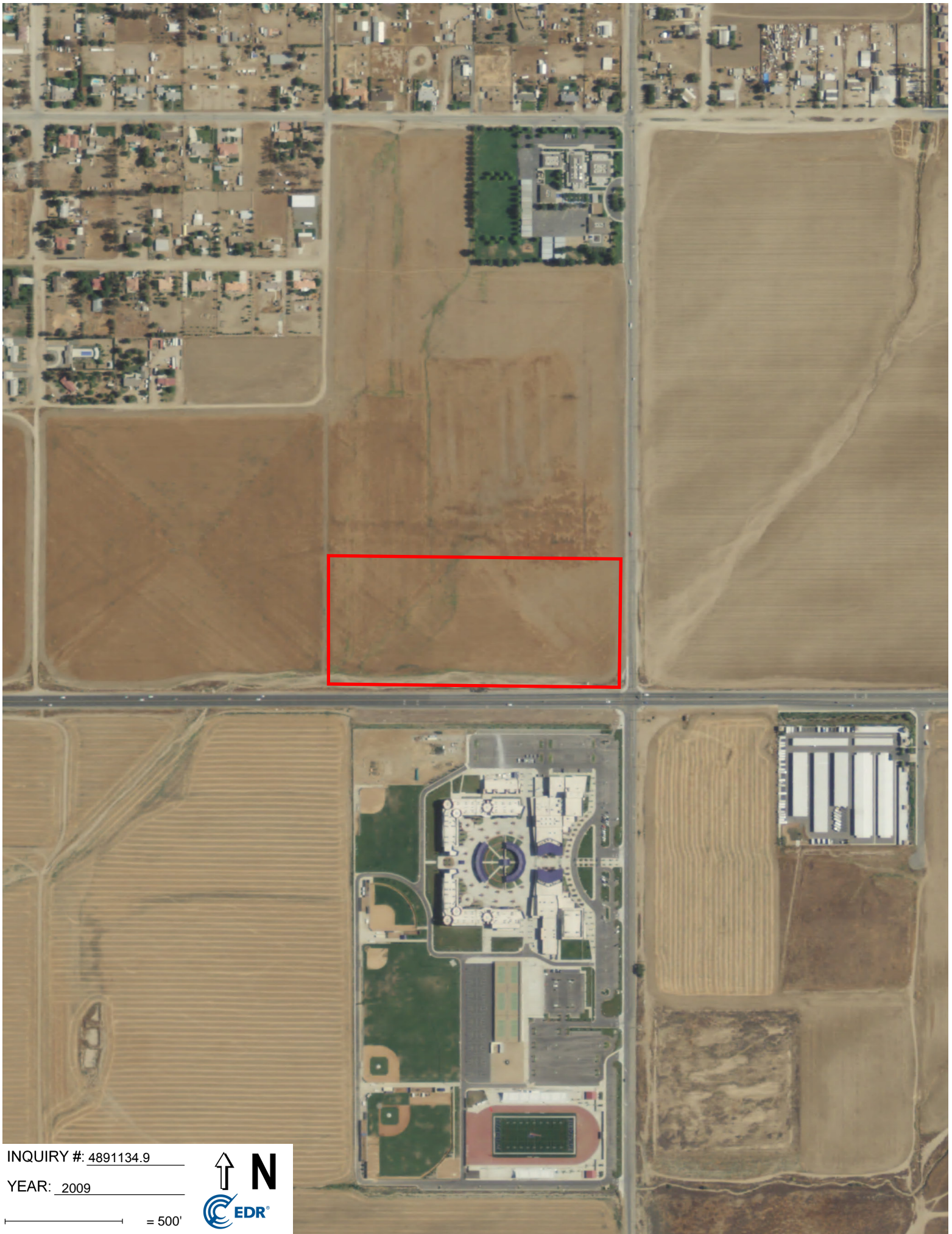


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YEAR: 2010

— = 500'





INQUIRY #: 4891134.9

YEAR: 2009

— = 500'



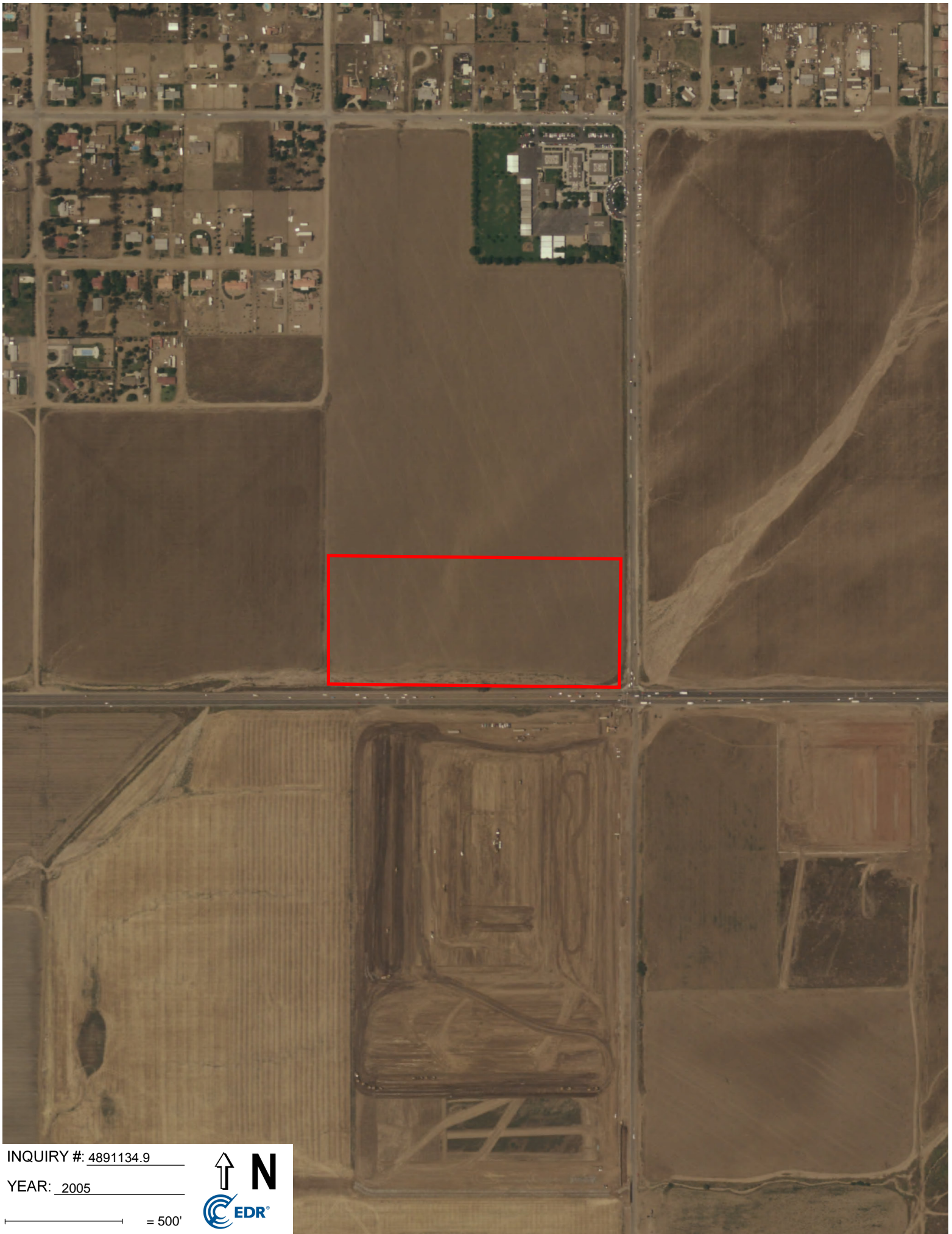


INQUIRY #: 4891134.9

YEAR: 2006

— = 500'





INQUIRY #: 4891134.9

YEAR: 2005

— = 500'





INQUIRY #: 4891134.9

YEAR: 2002

— = 500'





INQUIRY #: 4891134.9

YEAR: 1996

— = 500'





INQUIRY #: 4891134.9

YEAR: 1989

— = 500'





INQUIRY #: 4891134.9

YEAR: 1985

— = 500'





INQUIRY #: 4891134.9

YEAR: 1978

— = 500'





INQUIRY #: 4891134.9

YEAR: 1967

— = 500'





INQUIRY #: 4891134.9

YEAR: 1961

— = 500'





INQUIRY #: 4891134.9

YEAR: 1953

— = 500'





INQUIRY #: 4891134.9

YEAR: 1949

— = 500'





INQUIRY #: 4891134.9

YEAR: 1938

— = 500'



APPENDIX

F



MR 56

Northwest Corner of Highway 74 and Briggs Road

Sun City, CA 92585

Inquiry Number: 4891134.4

March 27, 2017

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

03/27/17

Site Name:

MR 56
Northwest Corner of Highway 7
Sun City, CA 92585
EDR Inquiry # 4891134.4

Client Name:

Geocon Env. Consultants, Inc.
41571 Corning Place
Murrieta, CA 92562
Contact: Alice Orton



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Geocon Env. Consultants, Inc. 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. EDR's 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:**Coordinates:**

P.O.#	T2765-22-02	Latitude:	33.744229 33° 44' 39" North
Project:	MR-56	Longitude:	-117.138591 -117° 8' 19" West
		UTM Zone:	Zone 11 North
		UTM X Meters:	487163.19
		UTM Y Meters:	3733805.81
		Elevation:	1522.07' above sea level

Maps Provided:

2012	1901
1979	
1973	
1967	
1953	
1947	
1943	
1942	

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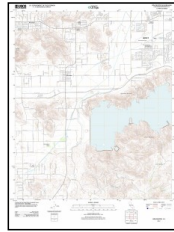
Topo Sheet Key

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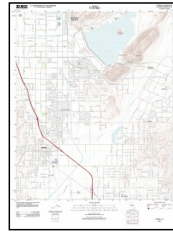
2012 Source Sheets



Romoland
2012
7.5-minute, 24000



Winchester
2012
7.5-minute, 24000



Perris
2012
7.5-minute, 24000



Lakeview
2012
7.5-minute, 24000

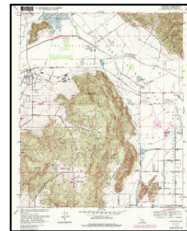
1979 Source Sheets



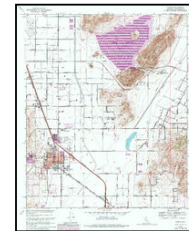
Romoland
1979
7.5-minute, 24000
Aerial Photo Revised 1976



Winchester
1979
7.5-minute, 24000
Aerial Photo Revised 1976

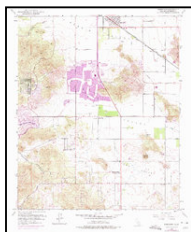


Lakeview
1979
7.5-minute, 24000
Aerial Photo Revised 1976

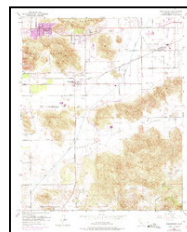


Perris
1979
7.5-minute, 24000
Aerial Photo Revised 1978

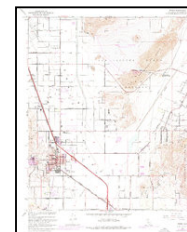
1973 Source Sheets



Romoland
1973
7.5-minute, 24000
Aerial Photo Revised 1973

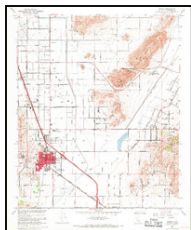


Winchester
1973
7.5-minute, 24000
Aerial Photo Revised 1973

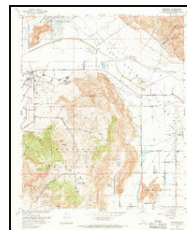


Perris
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1967 Source Sheets



Perris
1967
7.5-minute, 24000
Aerial Photo Revised 1966

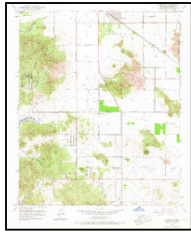


Lakeview
1967
7.5-minute, 24000
Aerial Photo Revised 1966

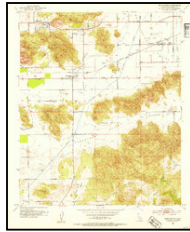
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1953 Source Sheets



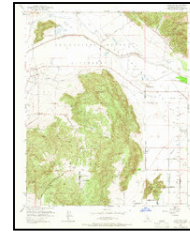
Romoland
1953
7.5-minute, 24000
Aerial Photo Revised 1951



Winchester
1953
7.5-minute, 24000
Aerial Photo Revised 1951

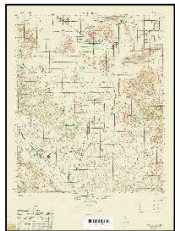


Perris
1953
7.5-minute, 24000
Aerial Photo Revised 1951



Lakeview
1953
7.5-minute, 24000
Aerial Photo Revised 1951

1947 Source Sheets

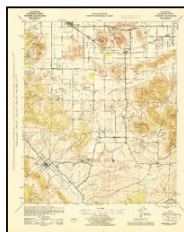


MURRIETA
1947
15-minute, 50000

1943 Source Sheets



PERRIS
1943
15-minute, 62500

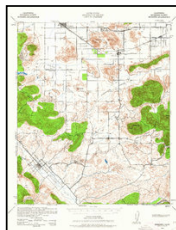


Murrieta
1943
15-minute, 62500
Aerial Photo Revised 1939

1942 Source Sheets



Perris
1942
15-minute, 62500
Aerial Photo Revised 1939

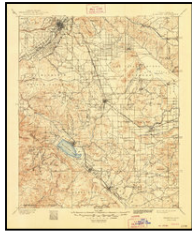


Murrieta
1942
15-minute, 62500
Aerial Photo Revised 1939

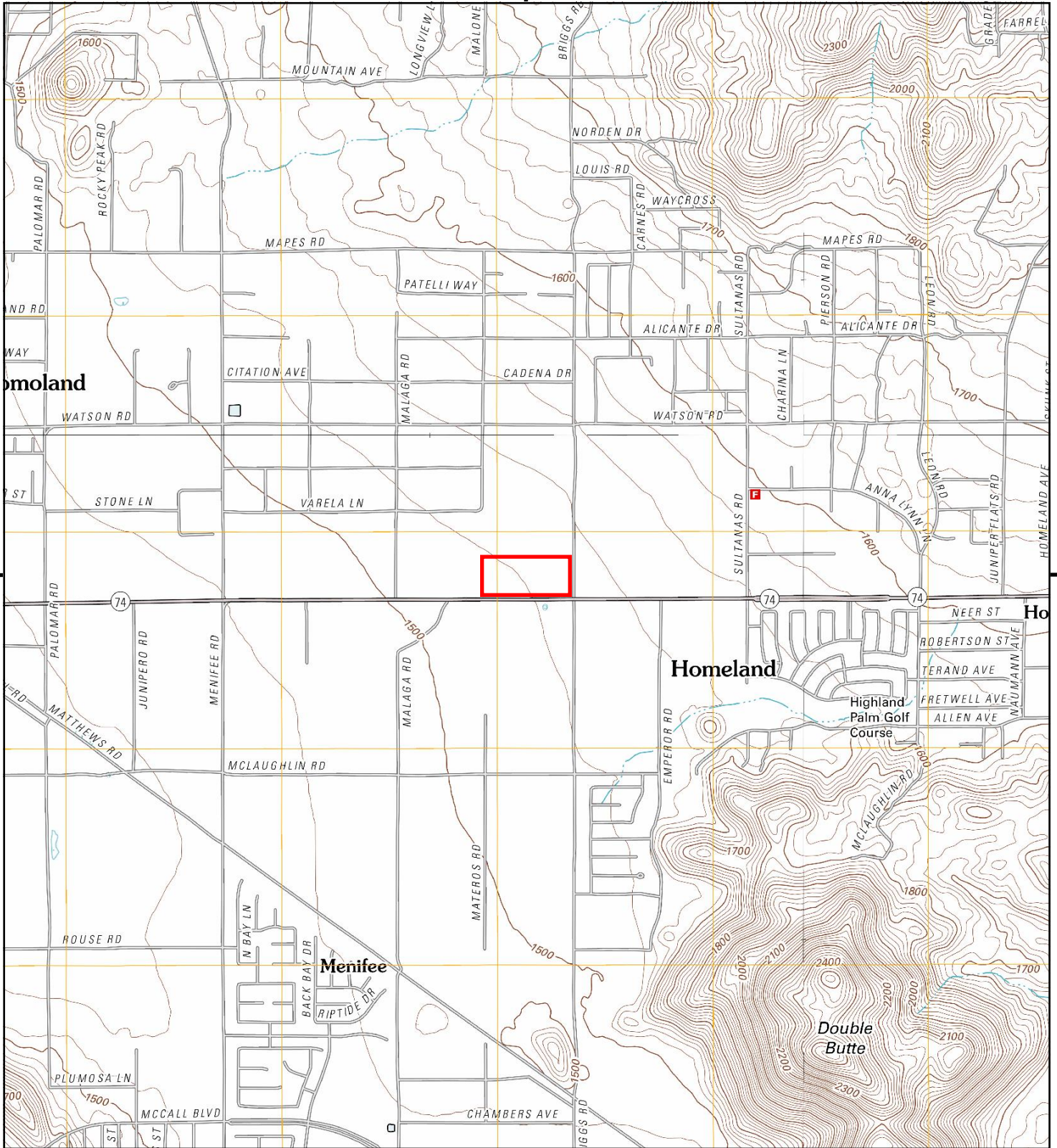
Topo Sheet Key

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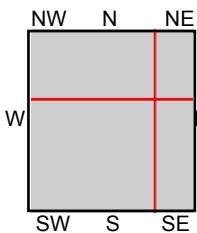
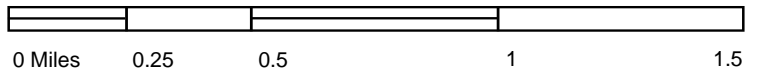
1901 Source Sheets



Elsinore
1901
30-minute, 125000



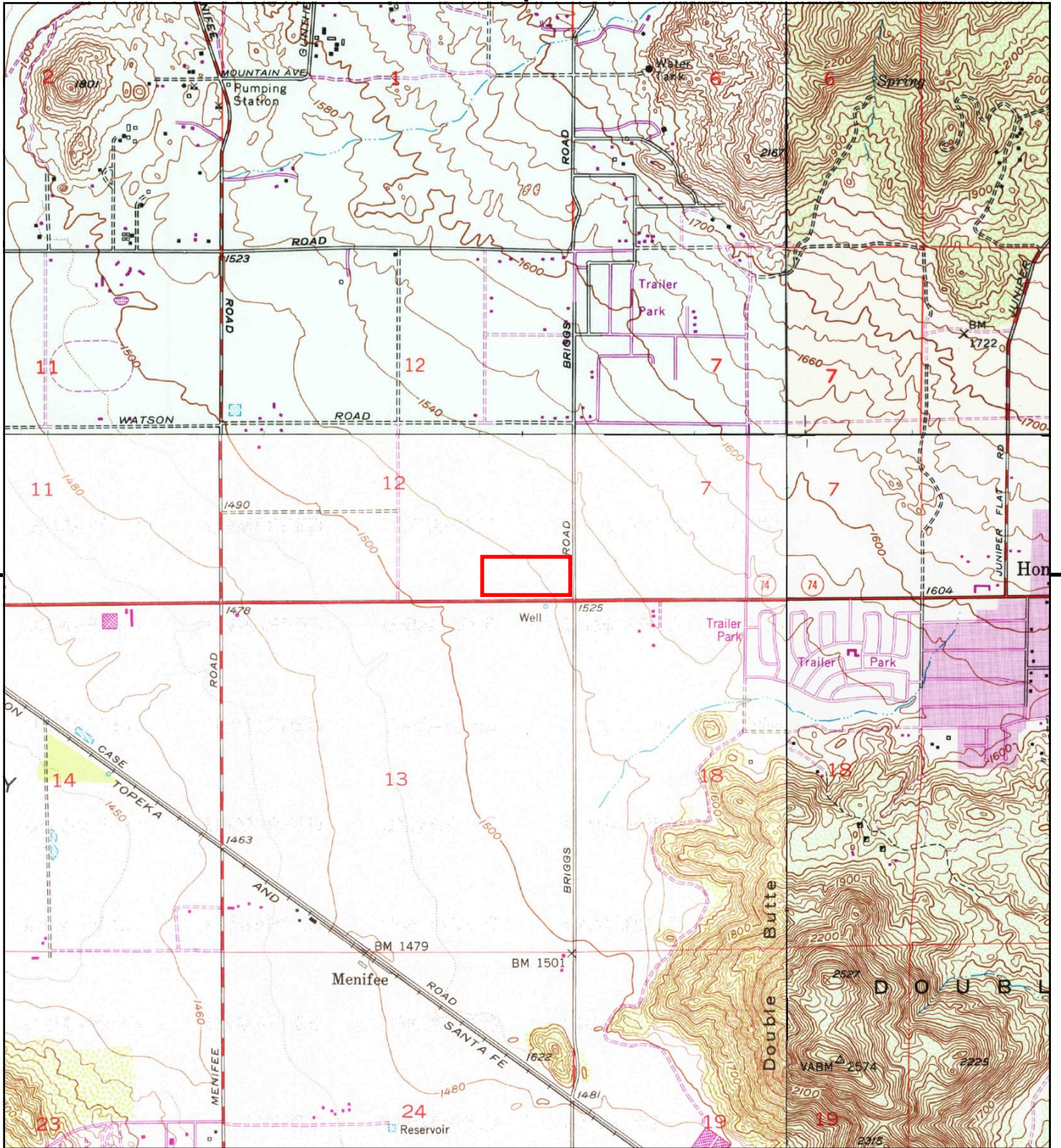
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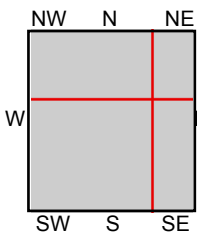
TP, Romoland, 2012, 7.5-minute
NE, Lakeview, 2012, 7.5-minute
SE, Winchester, 2012, 7.5-minute
NW, Perris, 2012, 7.5-minute

SITE NAME: MR 56
ADDRESS: Northwest Corner of Highway 74 and Briggs Rd
Sun City, CA 92585
CLIENT: Geocon Env. Consultants, Inc.





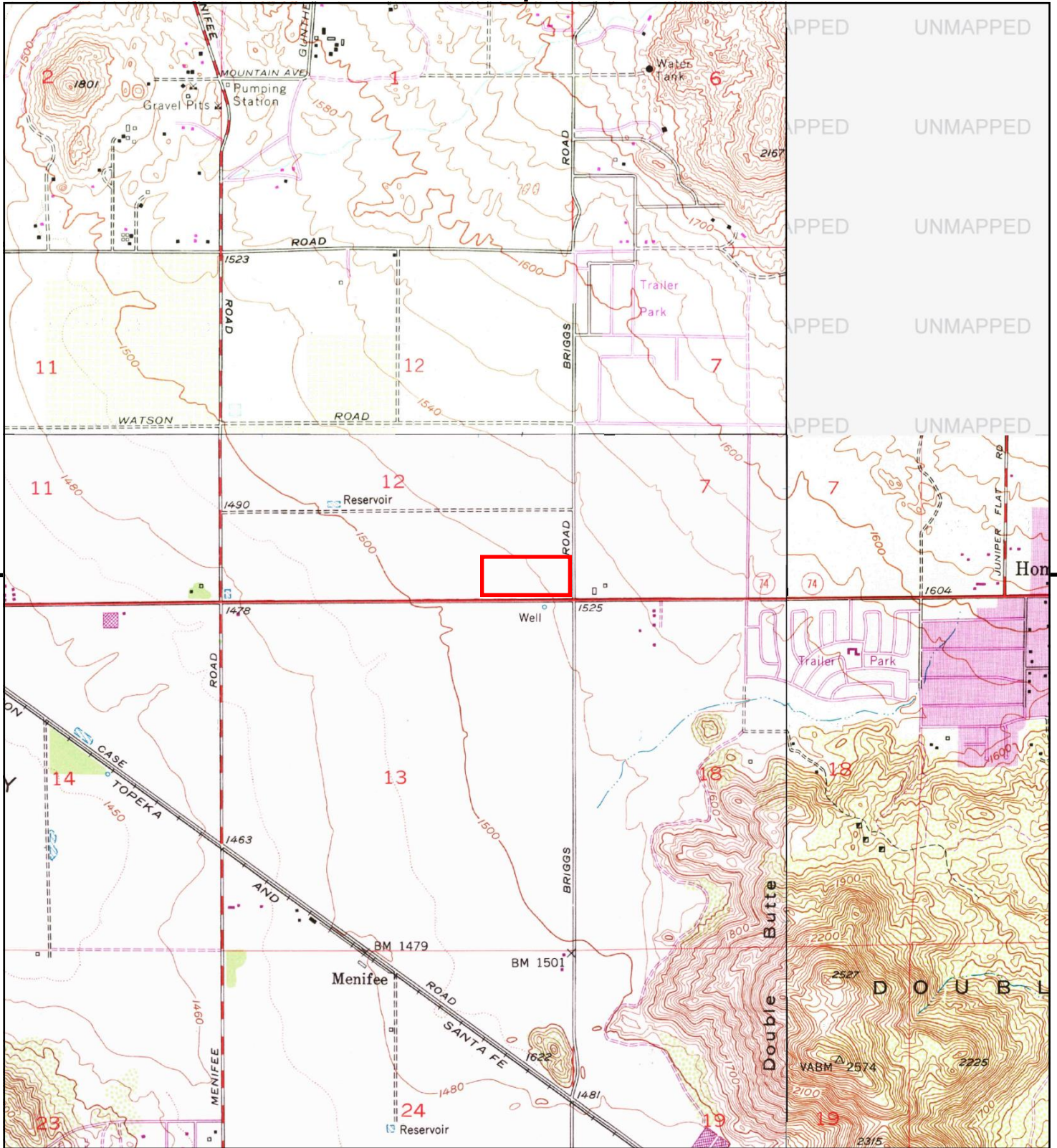
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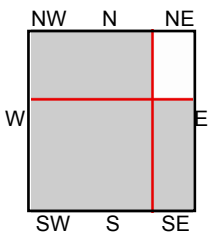
TP, Romoland, 1979, 7.5-minute
NE, Lakeview, 1979, 7.5-minute
SE, Winchester, 1979, 7.5-minute
NW, Perris, 1979, 7.5-minute

SITE NAME: MR 56
ADDRESS: Northwest Corner of Highway 74 and Briggs
Sun City, CA 92585
CLIENT: Geocon Env. Consultants, Inc.





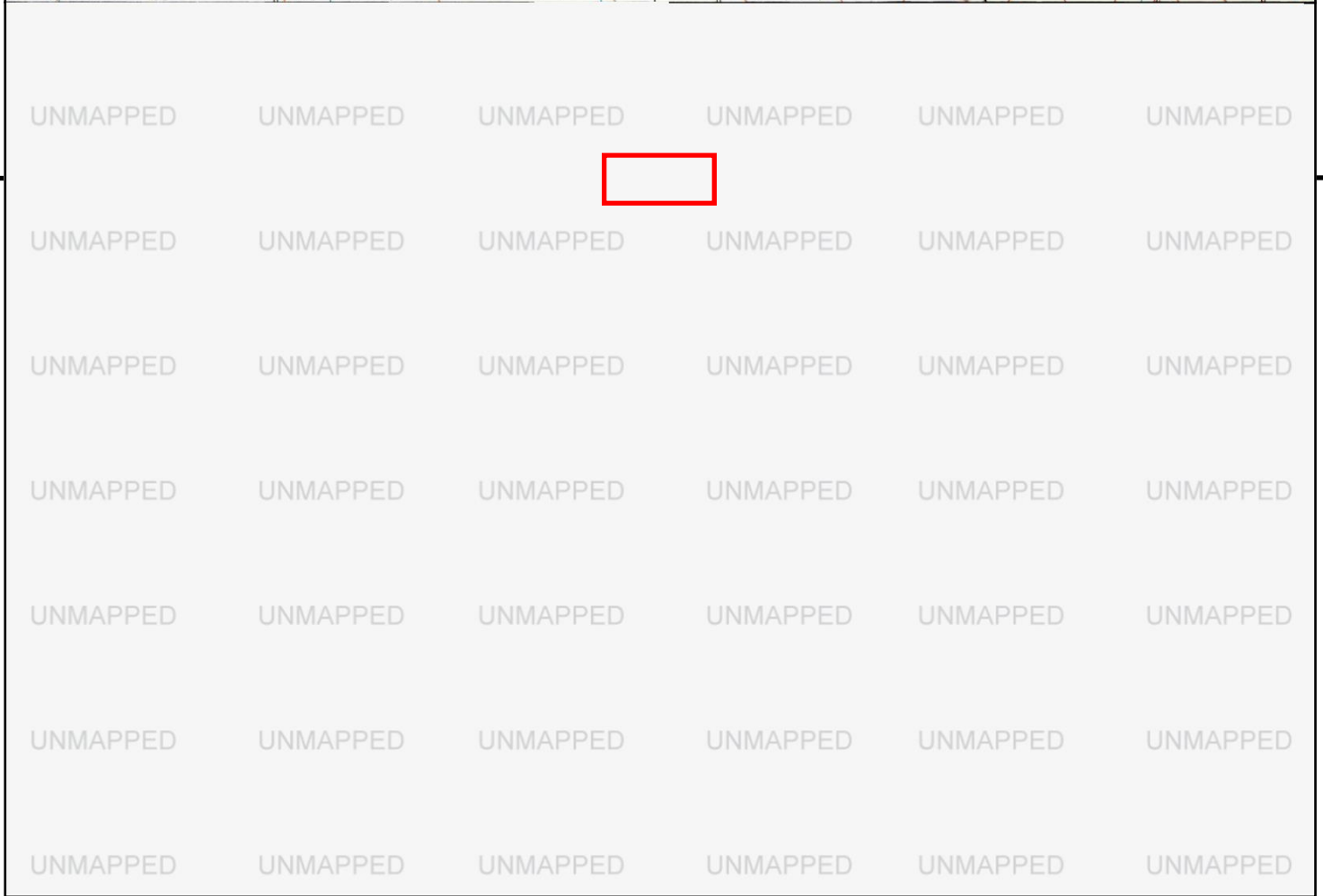
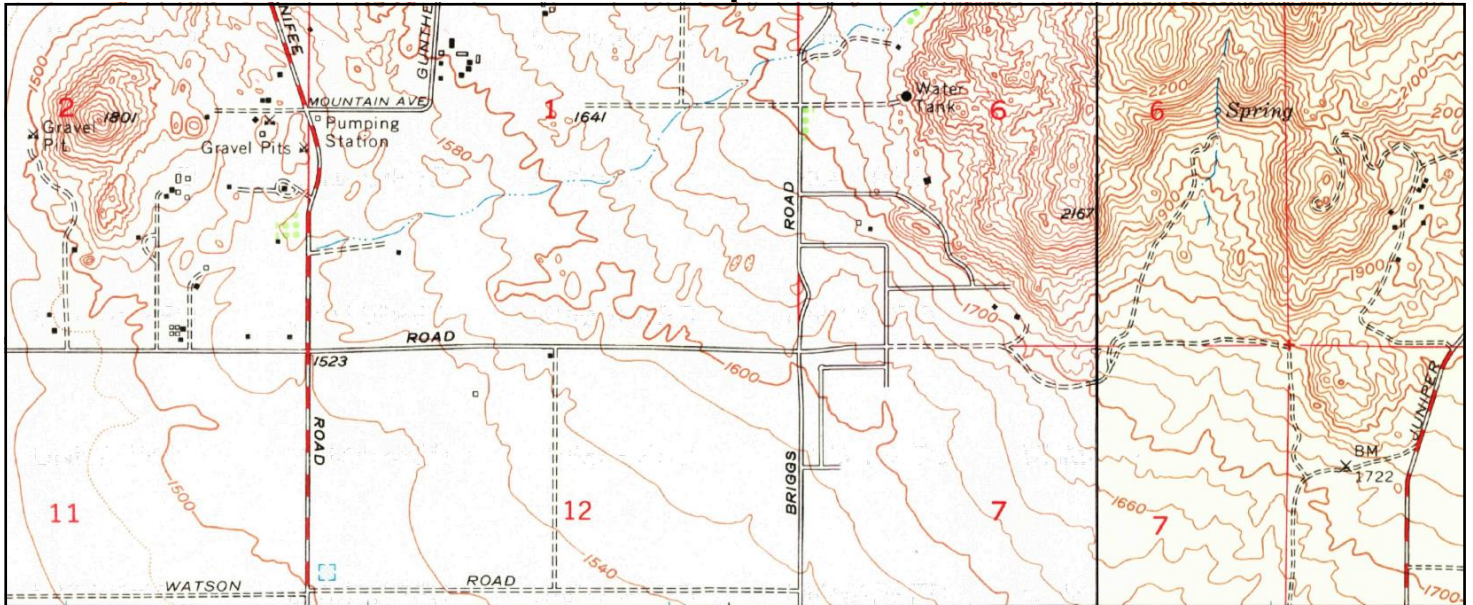
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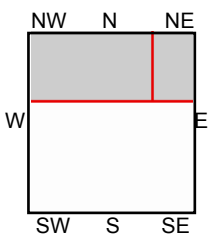
TP, Romoland, 1973, 7.5-minute
SE, Winchester, 1973, 7.5-minute
NW, Perris, 1973, 7.5-minute

SITE NAME: MR 56
ADDRESS: Northwest Corner of Highway 74 and Briggs Road
Sun City, CA 92585
CLIENT: Geocon Env. Consultants, Inc.





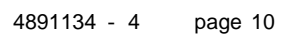
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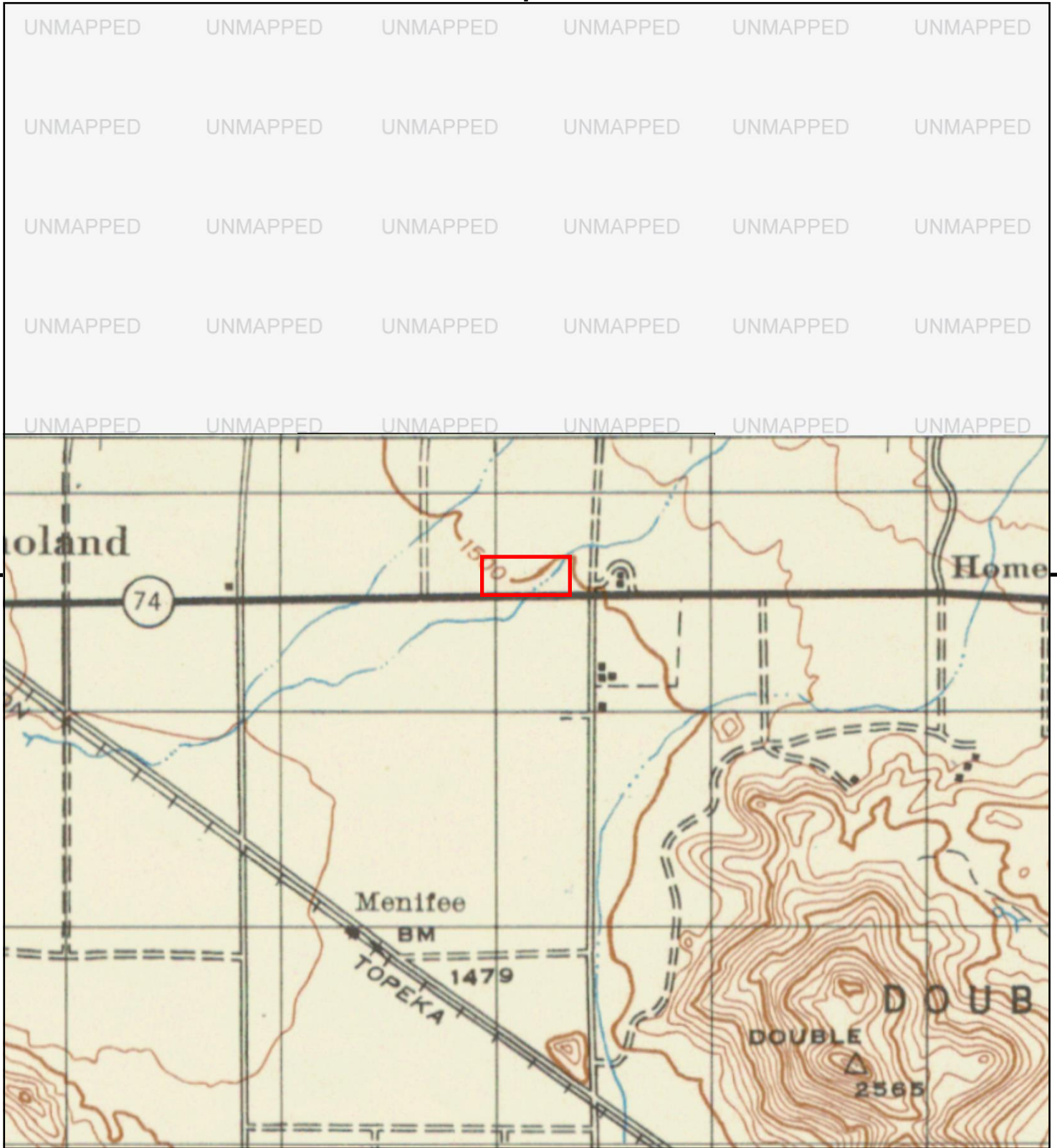


NE, Lakeview, 1967, 7.5-minute
NW, Perris, 1967, 7.5-minute

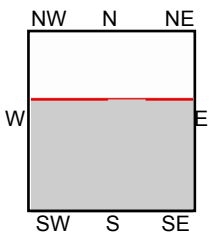
SITE NAME: MR 56
ADDRESS: Northwest Corner of Highway 74 and Brig
Sun City, CA 92585
CLIENT: Geocon Env. Consultants, Inc.







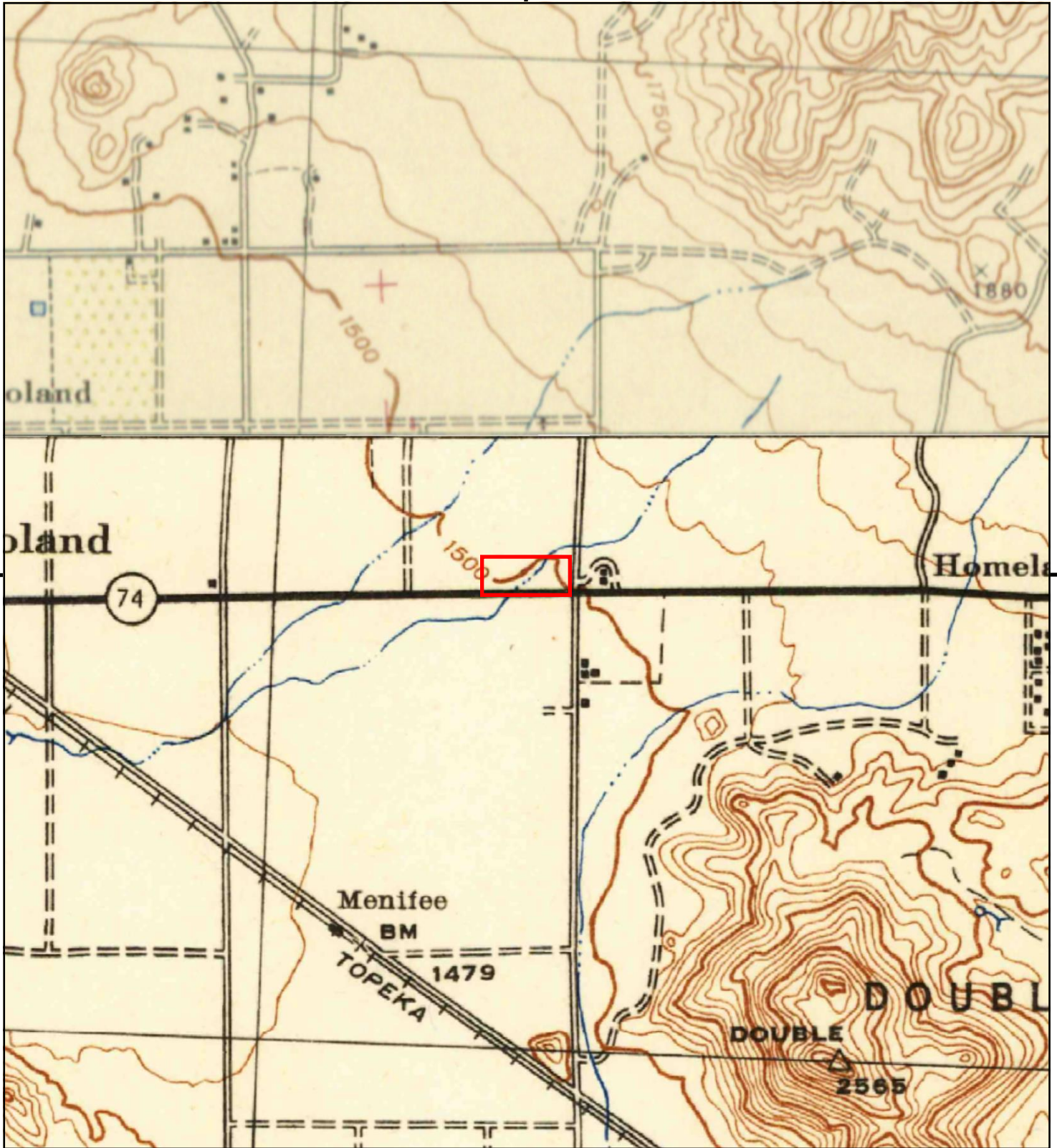
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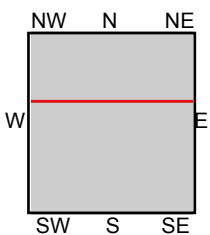
TP, MURRIETA, 1947, 15-minute

SITE NAME: MR 56
ADDRESS: Northwest Corner of Highway 74 and Brig
Sun City, CA 92585
CLIENT: Geocon Env. Consultants, Inc.





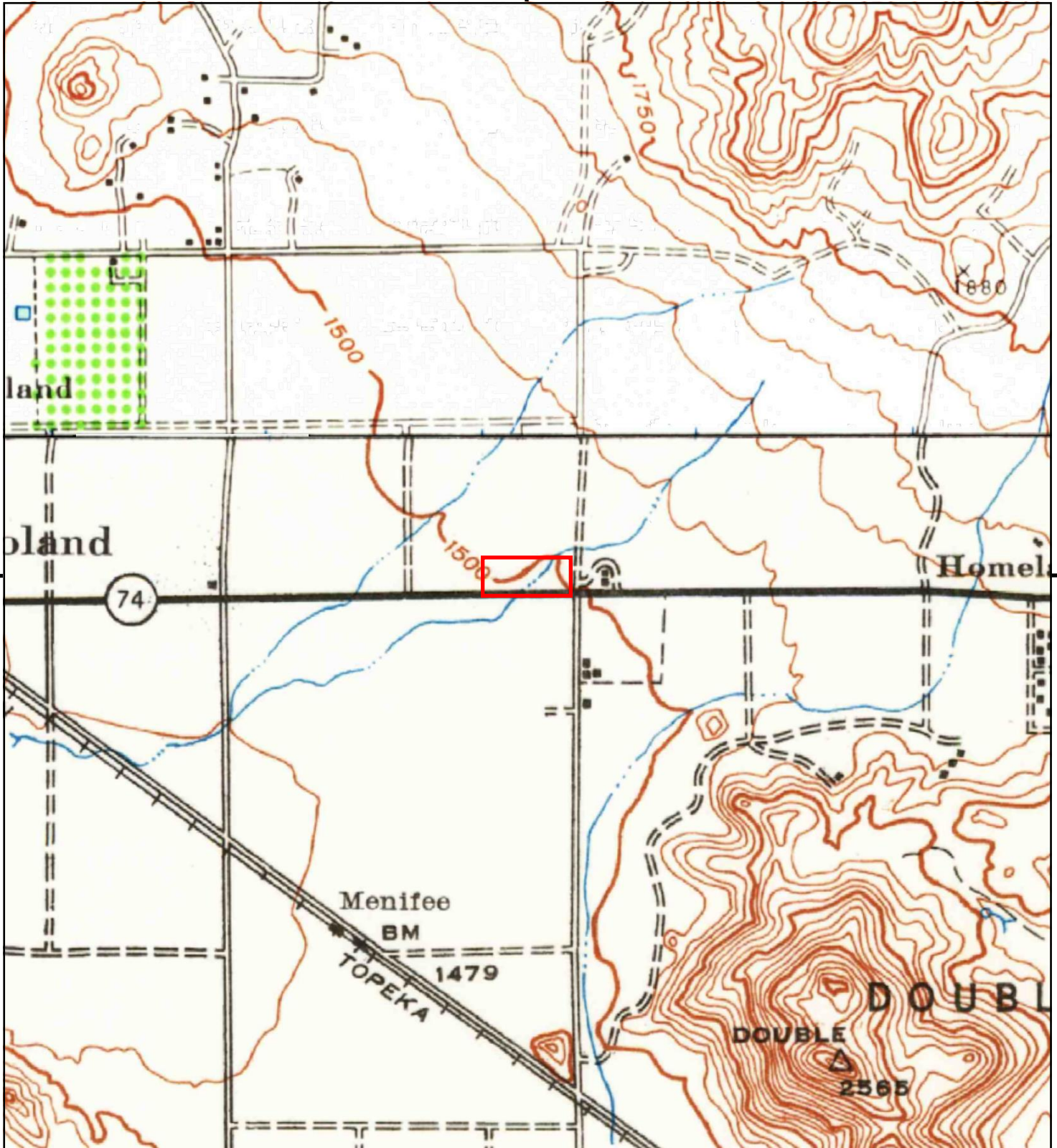
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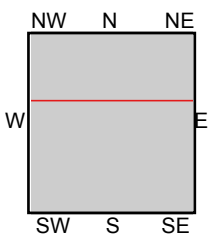
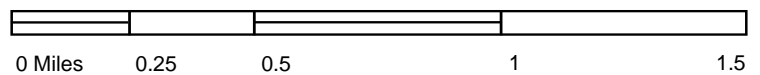
TP, Murrieta, 1943, 15-minute
N, PERRIS, 1943, 15-minute

SITE NAME: MR 56
ADDRESS: Northwest Corner of Highway 74 and Brig
Sun City, CA 92585
CLIENT: Geocon Env. Consultants, Inc.





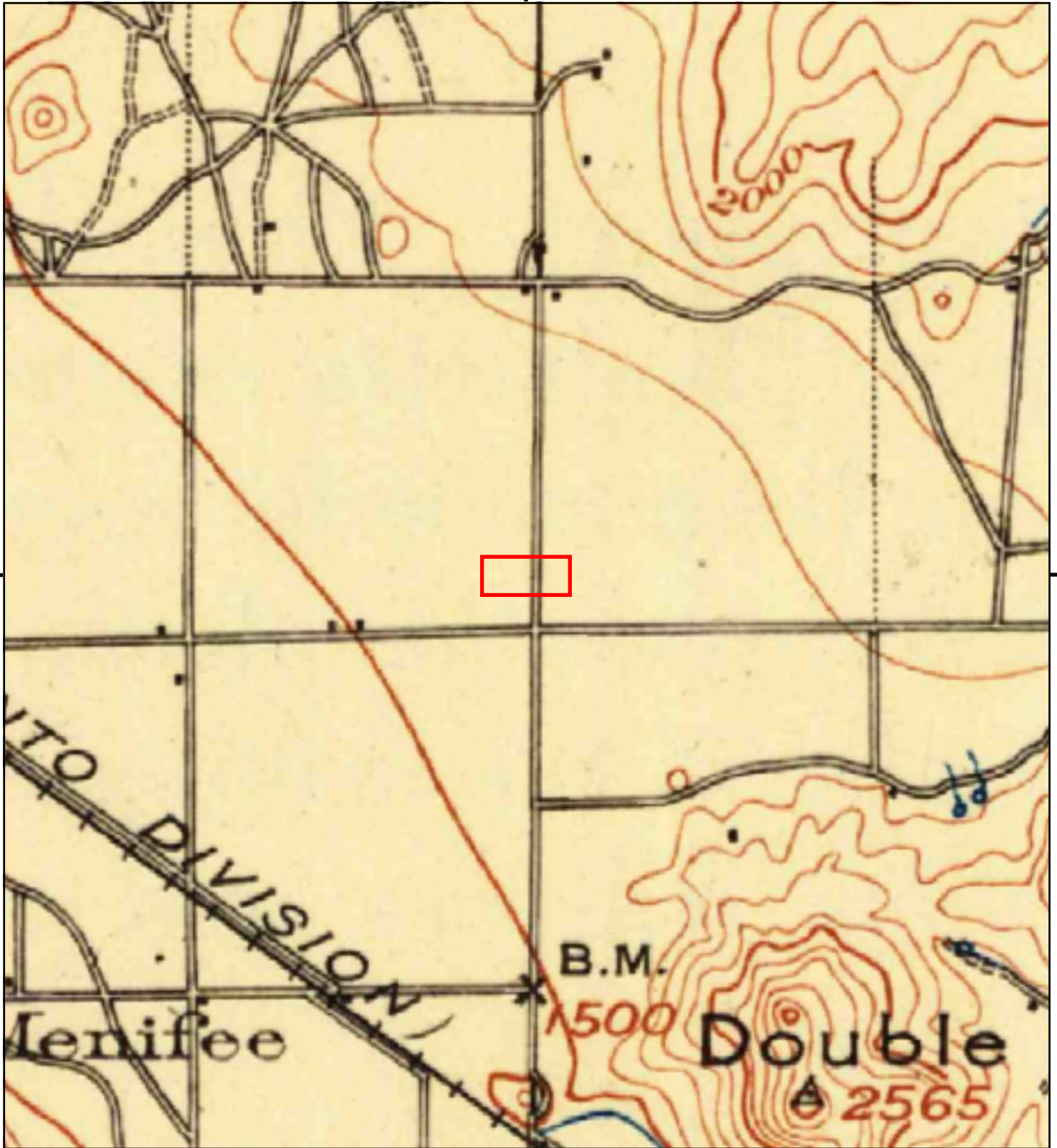
This report includes information from the following map sheet(s).



TP, Murrieta, 1942, 15-minute
N, Perris, 1942, 15-minute

SITE NAME: MR 56
ADDRESS: Northwest Corner of Highway 74 and Brig
Sun City, CA 92585
CLIENT: Geocon Env. Consultants, Inc.





This report includes information from the following map sheet(s).



TP, Elsinore, 1901, 30-minute

SITE NAME: MR 56
 ADDRESS: Northwest Corner of Highway 74 and Brig
 Sun City, CA 92585
 CLIENT: Geocon Env. Consultants, Inc.



APPENDIX

G

MR 56

Northwest Corner of Highway 74 and Briggs Road
Sun City, CA 92585

Inquiry Number: 4891134.5
March 30, 2017

The EDR-City Directory Image Report

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Executive Summary

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.

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.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2013	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information Services
2008	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information Services
2003	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information Services
1999	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information Services
1995	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cole Information Services
1992	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cole Information Services
1990	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Haines Criss-Cross Directory
1985	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Haines Criss-Cross Directory
1980	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Haines Criss-Cross Directory
1975	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Haines Criss-Cross Directory

RECORD SOURCES

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FINDINGS

TARGET PROPERTY STREET

Northwest Corner of Highway 74 and Briggs Road
Sun City, CA 92585

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
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US HIGHWAY 74

2013	pg A2	Cole Information Services
2008	pg A4	Cole Information Services
2003	pg A6	Cole Information Services
1999	pg A8	Cole Information Services
1995	pg A10	Cole Information Services
1992	pg A11	Cole Information Services
1990	pg A13	Haines Criss-Cross Directory
1985	pg A15	Haines Criss-Cross Directory
1980	pg A17	Haines Criss-Cross Directory
1980	pg A18	Haines Criss-Cross Directory
1975	pg A20	Haines Criss-Cross Directory

FINDINGS

CROSS STREETS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
-------------	-----------------	---------------

BRIGGS RD

2013	pg. A1	Cole Information Services	
2008	pg. A3	Cole Information Services	
2003	pg. A5	Cole Information Services	
1999	pg. A7	Cole Information Services	
1995	pg. A9	Cole Information Services	
1992	-	Cole Information Services	Target and Adjoining not listed in Source
1990	pg. A12	Haines Criss-Cross Directory	
1985	pg. A14	Haines Criss-Cross Directory	
1980	pg. A16	Haines Criss-Cross Directory	
1975	pg. A19	Haines Criss-Cross Directory	

City Directory Images

BRIGGS RD 2013

24315 DONALD HUDSON
24331 OCCUPANT UNKNOWN
24347 JAMES LONG
24363 MICHAEL COWAN
25005 MICHELLE OEHLER
25025 ARASELI SERRANO
25115 OCCUPANT UNKNOWN
25125 BONITA HICKS
25129 AGGRESSIVE DYERS TERMITE & PEST CONT
LELAND DYER
25139 BIOTACTICS ROMOLND
OCCUPANT UNKNOWN
25145 OCCUPANT UNKNOWN
25165 GUSTAVO HERNANDEZ
25169 RIGO OCEGUEDA
25185 SANDRA URIAS
25625 CHILD DEVELOPMENT CENTERS
MARION B ASHLEY COMMUNITY CENTER
26001 COUNTY OF RIVERSIDE
HERITAGE HIGH SCHOOL
PERRIS UNION HIGH SCHOOL DISTRICT

US HIGHWAY 74 2013

27345	TRUSS CORDYL
27350	SUN LEISURE MOTEL
27598	WHOLESALE RETAIL LEASING AUTO SALES
27644	REDLINE SERVICES
27666	ANNIE S TRUCK STOP
27682	ROMO GAS MART
27784	CREMATION SOCIETY OF RIVERSIDE COUNT
27848	TAQUERIA LA BARCA
27856	C AUTO PARTS
	PACIFIC 1 STEREO WHEELS & ACCESSORIE
	ROMOLAND MARKET
27980	OCCUPANT UNKNOWN
28151	DATATRONICS DISTRIBUTION INC
28261	AHERN RENTALS ACE HARDWARE
	TRUE VALUE
28380	CHINESE BISTRO
	HARVEST VALLEY COMPUTER
	MOTTE HISTORICAL MUSEUM
28390	ACTS INTERNATIONAL CHRISTIAN
28480	CURVES
	PERRIS VALLEY PRINTING CO
	UTURN FOR CHRIST THRIFT STORE
28490	HARVEST VALLEY COMPUTER
28921	AMERIMAX BUILDING PRODUCTS

BRIGGS RD 2008

24194	JOSEPH CHOATE
24315	DONALD HUDSON
24331	OCCUPANT UNKNOWN
24363	MICHAEL COWAN
25005	J OEHLER
25025	MICHAEL FISHBACK
25125	RAYMOND CHRISTY
25129	AGGRESSIVE DYERS TERMITE LELAND DYER
25139	MICHAEL MALTBY
25145	OCCUPANT UNKNOWN
25165	RIGO OCEGUEDA RIVCO COATINGS
25185	DANIEL MORALES
27490	RAYALLEN PARR
27530	J SILVA

US HIGHWAY 74 2008

27345	CORDYL TRUSS
	TRUSS CORDYL
27350	SUN LEISURE MOTEL
27818	ROBERT LOYD
27826	C AUTO PARTS
27856	ROMOLAND MARKET
27966	QUALITY WALLYS USED CARS & AUTO
27980	OCCUPANT UNKNOWN
28050	OCCUPANT UNKNOWN
28151	DATATRONIC DISTRIBUTION INC
	DATATRONICS ROMOLAND INC
28380	MOTTE FARMS INC
28455	BOBS MOBILE HOME SALES
28480	CONCRETE FOUNDATIONS INC
	IBEW LOCAL 1436
	PETERSON BROTHERS CONSTRUCTION INC
28490	CHINESE BISTRO
	HARVEST VALLEY CITIZENS PATROL
	INNOVATIVE CONCEPTS
28921	AMERIMAX BUILDING PRODUCTS

BRIGGS RD 2003

24315	MANUEL RAMIREZ
24331	FRANCISCO PEREZ
24347	TINA BARTON
24363	CHARLES BEAUDETT
24710	ALLEN CARTER
25005	MICHAEL PETRONELLA
25025	MICHAEL FISHBACK
25125	RAYMOND CHRISTY
25129	LELAND DYER
25139	WALTER WHITE
25145	JOHN GIEB
25165	RIGOBERTO OCEGUEDA
25185	CARL SJOSTROM
27490	RAYALLEN PARR

US HIGHWAY 74

2003

27526	RAMONA FIRESTONE TIRE CNTR
27580	SUSAN NICHOLS
27644	OCCUPANT UNKNOWN
27666	GUILLERMO VILLAVICENCIO
27682	ROMO GAS MART
	SAMUEL ROJAS
27736	BEST FOR LESS AUTO
27784	DUANE WALTON
27812	LOYDS TV & ELECTRONICS
27818	ROBERT LOYD
27856	EL SOBRERO MEAT MARKET
	PACIFIC 1 AUTO GLASS
	ROMOLAND MARKET
27888	KOUNTRY KORNER TRADING
27924	JULIAN RUBALCAVA
27966	OCCUPANT UNKNOWN
	QLTY WALLYS USED CARS & AUTO
28050	OCCUPANT UNKNOWN
28151	DATATRONICS
	OCCUPANT UNKNOWN
	POWER TEKNICS INC
28380	MOTTES FARMS & MARKET PLACE
	MOTTES RAMOLA FARMS
28390	OCCUPANT UNKNOWN
28455	BOBS MOBILE HOME SALES
	CLAUDIO HERNANDEZ
28480	IBEW LOCAL 1436
28490	PANDA TRAIN
28921	ALUMAX BUILDING PRODUCTS INC
	AMERIMAX FABRICATED PDTS INC
	OCCUPANT UNKNOWN

BRIGGS RD 1999

24315	MANUEL RAMIREZ
24331	FRANCISCO PEREZ
24347	OCCUPANT UNKNOWN
24363	MICHAEL COWAN
25005	J OEHLER
25025	MICHAEL FISHBACK
25125	RAYMOND CHRISTY
25129	SEAN DYER
25145	EMILIO GONZALEZ
	OCCUPANT UNKNOWN
25165	CLAUDIA GANDARA
25185	DANIEL MORALES
27490	RAYALLEN PARR
27530	J SILVA

US HIGHWAY 74 1999

27256 REBEL RENTS
 27345 TRUSS CORDYL
 27350 SUN LEISURE MOTEL
 27526 RAMONA FIRESTONE TIRE CENTERS ROMOLAND
 27644 QUICK COVERS
 TRAILER GUYS
 27666 ANNIES TRUCK STOP
 27682 ROMO GAS MART
 27736 AUTOS FOR LESS
 27762 JIMCO EQUIPMENT
 27784 ROMOLAND SCHOOL DISTRICT FOOD SERVICES DIRECTOR
 ROMOLAND SCHOOL DISTRICT M O T DIRECTOR
 ROMOLAND SCHOOL DISTRICT OFFICE
 27812 LLOYDS TV & ELECTRONICS
 27818 MITCHELL LOYD
 27856 C AUTO PARTS
 ROMOLAND MARKET
 27888 COUNTRY CORNER FENCING
 27960 UNIQUE AUTO
 28082 OCCUPANT UNKNOWN
 28151 DATATRONICS INCORPORATED
 28261 MATTHEWS INTERNATIONAL ARCHITECTURAL DIVISION MEML DIVISION
 28380 BULLFROGS DELI
 J & J RANCH MARKET
 28390 THE OLD BARN INCORPORATED
 28455 HOWARDS MOBILE HOME SALES
 28480 HAIR STATION THE
 UNITED STATES GOVERNMENT CONTD PSTL SERVICE CONTD
 28490 Y Y Y CABOOSE NO 1
 28921 ALUMAX BUILDING PRODUCTS A DIVISION OF ALUMAX FABD PRODUCT

BRIGGS RD**1995**

25129 BROOKSHIER, PAUL
25145 BALLARD, MELANIE L
25165 GORMAN, JEAN
25185 SHOOK, RICHARD G

US HIGHWAY 74

1995

27256	CHARMAC TRAILERS
27350	SUN LEISURE MOTEL
27526	RAMONA TIRE & AUTOMOTIVE
27644	GONZALES, ROBERT A
	QUICK COVERS
	TRAILER GUYS
27666	ANNIES TRUCK STOP
27682	ROMO GAS MART
27762	A C TORRES & SONS PLUMBING
27812	LOYDS TV & ELECTRONICS
27818	LOYD, ROBERT D
27848	US POST OFFICE
27888	KOUNTRY KORNER TRADING POST
27924	PRESTIGE AUTO WHOLESALER
27966	QUALITY WALLYS USED CARS
28082	MAGANA, JOSE
28261	MATTHEWS INTERNATIONAL CORP
28380	BULLFROGS
	HARVEST PRODUCE CO
	OLD BARN INC
28455	HOWARDS MOBILE HOME SALES
28480	A LITTLE BLESSING
	HAIR STATION
	INLAND PLANNING SVC
	VIDEO SPECTRUM
28490	PANDA TRAIN CHINESE RESTAURANT

US HIGHWAY 74

1992

27256	CHARMAC TRAILERS
	U HAUL CO
27350	SUN LEISURE MOTEL
27526	RAMONA TIRE INC
27666	ANNIES TRUCK STOP
27700	LA FRENCHYS
27762	A C TORRES&SONS
27784	AKERS&MUSSER
27812	LOYDS TV&ELCTRNCS
27826	MAC AIRE
27856	C AUTO PARTS
	ROMOLAND MARKET
27888	KOUNTRY KRNTR TRADING
27924	PRESTIGE AUTO WHSLR
27966	QUALITY WALLYS CARS
28151	DATATRONICS INC
28261	MATTHEWS INTERNATL
28380	BULLFROGS
	CURTIS PRODUCE CO
	MOTTES ROMOLA FARMS
	OLD BARN THE INC
28455	HOWARDS MBL HME SLS
28480	A LITTLE BLESSING
	CENTENNIAL ENGRG
	CHIPMAN MARKETING
	HAIR STATION THE
	INLAND PLANNING SRV
	ST STEPHENS EPSCPL
	VIDEO SPECTRUM
28490	PANDA TRAIN

4891134.5 Page: A12

US HIGHWAY 74 1990

ST HWY 74 92380
ROMOLAND

RURAL ROUTE 1

27256	★PERRIS VLY RENTALS	657-5132	2
	★U HAUL CO	943-6087	7
27350	DELELLIS Anthony	657-6580	5
	★SUN LEISURE MOTEL	657-6017	
27580	WARD Linda	943-0615	+0
27598	CONTRERAS Evenor	657-0899	+0
27644	XXXX	00	
27666	★ANNIES TRUCK STOP	943-1113	5
27682	RAPERT Jeannette	657-8141	+0
27700	★CHUG A LUG	657-0902	7
27780	★TORRES&SONS	657-8828	4
27784	★AKERS&MUSSER	657-2159	7
27812	★LLOYDS TV&ELCTRNCS	657-7877	5
27856	★ROMOLAND MKT	657-2465	
27888	★KOUNTRY KORNER	657-7793	5
27924	XXXX	00	
27966	★QUALITY WALLYS AUTO	657-7402	9
28062	XXXX	00	
28151	★BOURNS MAGNTCS DIV	943-9724	9
	★BOURNS MGNTC PRCHSG	943-9705	7
28261	★MATTHEWS INTERNATNL	657-3174	
28380	★MOTTES ROMOLA FARMS	943-2002	7
	★ROMOLA FARMS	943-2002	6
28455	★HOWARDS MBL HME SLS	657-1707	6
28480	★BROWN GERARD	657-6518	9
	★BROWNS CARPET&CLNG	657-3644	9
	★MOTTE ENTERPRISES	657-4281	2
	★STYLES BY NONA	657-1412	1
	★VALLEY ACRES REALTY	657-1831	4
	★VIDEO SPECTRUM	943-6605	7
28490	★PANDA EXPRESS	657-7057	+0
28921	★ALUMAX BLDG PRDS 40	943-4220	6
30249	★RAYS FARMS	926-9475	9
	ZACHARY Sarah	926-9745	+0
★	26 BUS	8 RES	5 NEW

BRIGGS RD 1985

24790	EELS ELEANOR	657-2664	1
25005	PETRONELLA M	657-2207	+5
25129	BROOKSHIER DORIS	657-3027	4
25145	SIMMONS CLYDE	926-3858	0
25165	BLEYHL MILTON E	926-3860	0
25185	SHOOK RICHARD	926-1290	9
25450	VINTI JOHN	926-3876	+5
27530	CUEVAS SIXTO T	679-5421	1
30150	ALGER CRAIG	926-2033	4
	ALGER CRAIG D	679-3431	6
	LOWREY JUDD	672-1540	+5
30490	BOERE JOHN JR	679-2684	+5
30525	LAPLANTE EARL	679-9602	2
	NADING HAROLD	00	
30560	XXXX	00	
30605	EDDIES RESTAURANT	672-2324	+5
	WILDERNESS PARK ACI	679-4750	1
30723	XXXX	00	
31015	DEJONG WM	679-9732	2
31500	AMAPOLA DEL VISTA F	679-8795	1
31585	BUESGEN WM	679-1001	3
	YOZAMP DWAYNE	679-8065	+5
31601	XXXX	00	
31760	XXXX	00	
31780	DAVIS ARNOLD F	679-5765	7
31800	SCALES DENNY	679-2237	9
31820	XXXX	00	
31824	XXXX	00	
31830	NADING RON	672-1491	4
32709	XXXX	00	
32715	DAVIDSON BASIL	672-1442	4
33041	EUSEBIO JOSE	926-3181	+5
33055	MADRID BERNIE	926-3844	1
33150	PERRY WM	679-0114	4
33180	CHAVEZ ALBINO	679-2065	4
33780	MCLEHINNEY DOROTHY	926-1634	
33965	MORLOK ROBT	926-3288	4
34090	HOOPE JAS W	926-1635	1
34221	BUDWEISER CLYDESDLS	926-2360	4
	WARM SPRINGS RANCH	926-9170	4
34470	ROMBERGER J A	926-4769	3
35205	MOSSA JESSE	926-2524	2
35245	MIKE MONTELEONE EXC	677-6403	2
	MONTELEONE MICHAEL	926-3337	9
35315	BARTH REG J	926-1375	1
35375	VANGAAL PETER	926-2528	3
35440	COATS DAVID M DVM	926-3105	2
	PATTON KENT DVM	926-3105	7
35755	ENDRES FRANK J	926-1042	
36131	XXXX	00	
36371	BOREL DAVID L	926-2502	
	CONE GUY F	926-2050	9
★ 6 BUS 54 RES 8 NEW			

US HIGHWAY 74 1985

ST HWY 74 92380			
ROMOLAND			
RURAL ROUTE 1			
25770	XXXX	00	
27256	PERRIS VLY RENTALS	657-5132	2
27350	DELELLIS ANTHONY	657-6580	+5
	SUN LEISURE MOTEL	657-6017	
27580	FREY FLORENCE	657-8594	3
27644	BERKEY RICHARD	657-2200	4
	CLASSIC CARS	657-2200	4
27666	ANNIES TRUCK STOP	943-1113	+5
27682	HINCKLEY ANDREW	657-0460	3
27700	NUT HOUSE THE	657-8051	1
27726	XXXX	00	
27736	VALLEY SANDBLASTING	657-6808	+5
27768	MURRIETA CNTRY SLS	943-2288	+5
27780	TORRES&SONS	657-8828	4
27784	XXXX	00	
27812	LOYDS TV&ELECTRONCS	657-7877	+5
27826	XXXX	00	
27848	US POSTAL SERVICE	657-2263	
27856	HADDAD YACOB	943-1373	4
	ROMOLAND MKT	657-2465	
27862	MAYNARDS EXXON	657-3037	+5
27864	XXXX	00	
27888	KOUNTRY KORNER	657-7793	+5
27902	CLAYTON B B	657-1479	+5
27924	AGUILAR ALBERTINE	657-6908	
27966	ELIZABETHS PERM WVE	657-2374	+5
	PERMANENT WAVE CNTR	657-2374	+5
27972	HANNON D J	657-2468	
27982	XXXX	00	
28030	PAULSON CLARENCE SR	674-2956	
28062	BARGAIN VLG ENTP	657-9141	0
28068	XXXX	00	
28072	XXXX	00	
28151	BOURNS MAGNETICS	657-5195	8
28261	MATTHEWS INTERNATNL	657-3174	9
28380	XXXX	00	
28455	XXXX	00	
28480	AKERS&MUSSER	657-2159	2
	DRIVE THRU PHARMACY	657-1869	+5
	M&M FLORIST&GIFTS	657-1839	+5
	MOTTE FARMS	657-4281	2
	STYLES BY NONA	657-1412	1
	SUNSHINE HEALTH SYS	657-1869	+5
	VALLEY ACRES REALTY	657-1831	4
28490	SPAGHETTI WESTERN	943-1919	+5
★ 26 BUS 19 RES 14 NEW			

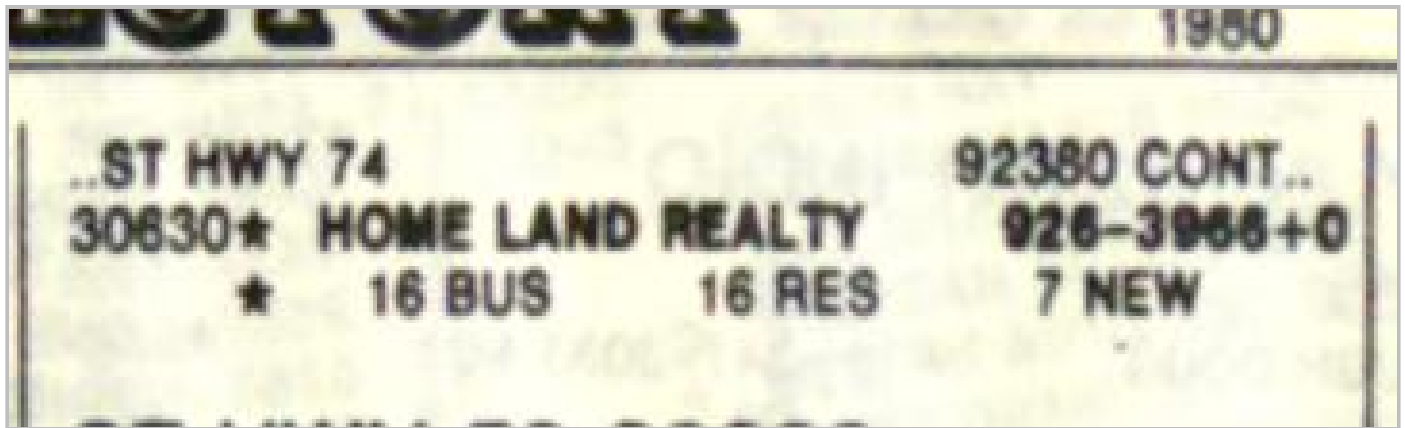
BRIGGS RD 1980

25165	BLEYHL MILTON E	926-3858	+0	
25185	SHOOK RICHARD	926-3860	+0	
25450	VINTI JOHN	926-1290	9	
30150	LOWREY JUDD	679-3431	6	E
30524	XXXX	00		
30560★	WILDERNESS LAKE	679-4750	6	
30723	MCCLELLAN CAROLINE	679-4624	+0	
31500	BARNETTE ALLEN	679-5288		
31601	KIMM JOHN	679-2586		
31760	THURMAN LYNDA	679-1609	6	2
	THURMAN MARTIN SR	679-1609	6	2
31780	DAVIS ARNOLD F	679-5765	7	2
31800	SCALES DENNY	679-2237	9	2
31820	PITTMAN JOHN R	679-3184	7	2
31824	XXXX	00		2
31830	HILLARD DENNIS	679-2269	+0	2
32715	DAVIDSON BASIL	926-1478	+0	2
33041	ARTELL ANNA L	926-3998	+0	2
	HARTMAN ALFRED A	926-2400	+0	2
33780	MCELHINNEY ANDY	926-1634	6	2
	MCELHINNEY DOROTHY	926-1634		2
34221★	WARM SPRINGS RANCH	926-2360		2
35245	MONTELEONE MICHAEL	926-3337	9	2
35440	PATTON KENT DVM	926-3105	7	2
35755	ENDRES FRANK J	926-1042	5	2
36131	RINDAHL ARTHUR	926-2881	9	2
36371	BOREL DAVID L	926-2502	5	
	CONE GUY F	926-2050	9	
NO #	HOOPE JAS W	926-1635		2
★	2 BUS	36 RES	7 NEW	2

US HIGHWAY 74 1980

ST HWY 74 92380			
ROMOLAND			
RURAL ROUTE 1			
27350	ARRIOLA VICTOR G	657-7109 +0	20
	HERNANDEZ TONY	657-9287 +0	20
★	SUN LEISURE MOTEL	657-6017 4	
27580★	FREY F BEAUTY SHOP	657-3374	21
27644★	DUCKWORTH REALTY	657-2050 5	21
27682	XXXX	00	
27700	XXXX	00	
27726	HENSLEY RICHARD W	657-1074 +0	
27762★	MORENO BOOKEEPING	657-1486 +0	
27784	XXXX	00	
27812★	LOYDS TV&ELECTRONCS	657-7877 6	
27826	BAKER LOTTIE	657-3297 8	
27848★	US PO ROMOLAND	657-2263	
27856	GREMMINGER DAVID F	657-6122 4	
★	ROMOLAND MKT	657-2465	
27862	XXXX	00	
27864	CLAYTON B B	657-1479 +0	
27894	CLAYTON J B	657-2507	
27924	AGUILAR ALBERTINE	657-6908 5	
27972	HANNON D J	657-2468	
27982★	ELIZABETH PRMNT WVE	657-2374 6	
★	PERMANENT WAVE CTR	657-2374 5	
28030	PAULSON CLARENCE SR	674-2956 5	
28062★	BARGAIN VLG ENTRPRS	657-9141 +0	
28068	XXXX	00	
28072	XXXX	00	
28151★	BOURNS MAGNETICS	657-5195 8	
28261★	MATTHEWS JAS H&CO	657-3174 9	
28380★	MOTTE FARMS	657-4281 5	
★	PERRIS MOBILEHOMES	657-4281 5	
30249★	MAISEYS RUG CO	926-2663 4	

US HIGHWAY 74 1980



BRIGGS RD 1975

24790	BROESAMLE HUBERT	926-2222 4
	EELLS VICTOR	657-3387
30150	LOWREY JUDD	679-5152+5
30560	GABRIELSON JAS	679-4750+5
31500	BARNETTE ALLEN	679-5288
31601	KIMM JOHN	679-2586
31760	XXXX	CO
31780	BELZONE A A	679-5720+5
31800	BRASSY PHILLIP	679-5625+5
31824	PITTMAN JOHN R	679-3184+5
34221*	WARM SPRINGS RANCH	926-2360
35755	ENDRES FRANK J	926-1042+5
36371	BOREL DAVID L	926-2502+5
*	1 BUS 19 RES	9 NEW

US HIGHWAY 74 1975

STATE HWY 74 92380 ROMOLAND

RURAL ROUTE 1

27580*FREY F BEAUTY SHOP 657-3374
 THOMAS LARRY 657-4156 4
 27606 XXXX 00
 27644*DUCKWORTH REALTY 657-2050+5
 27682 BECERRA ERIC 657-6944 4
 27700*SOMEPLACE ELSE 657-8098 4
 27736 XXXX 00
 27741 XXXX 00
 27762*PERRIS VLY PLUMBING 657-5696 4
 27784*KIDDIE KARE KOLLEGE 657-4815
 27812 XXXX 00
 27848*US POST OFFICE DEPT 657-2263
 27856 GREMMINGER DAVID F 657-6122 4
 *ROMOLAND MKT 657-2465
 27862 BAKER WILL F 657-3297+5
 27894 CLAYTON J B 657-2507
 27924 AGUILAR ALBERTINE 657-6908+5
 27972 HANNON D JOSEPHINE 657-2468
 27982*PERMANENT WAVE CTR 657-2374+5
 28030 PAULSON CLARENCE SR 674-2956+5
 28050 XXXX 00
 28062 RHODES DONN 657-2751
 *RHODES PRINTING SV 657-2751 4
 28068*SHAKLEE DISTRIBUTOR 657-5910 4
 *SONDRAS ENTERPRISES 657-5910+5
 28072*CASTANIETO COSME JR 657-6619 4
 28151*BOURNS PCFC MAGNTCS 657-5195
 28261*MATTHEWS JAS H&CO 657-3174
 28380*MOTTE FARMS 657-4281+5
 *PERRIS MOBILE HOMES 657-4281+5
 *US EMPIRE CORP 657-6110+5
 28921*AMAX ALNM BLDG PRD 657-7441 4
 *AMAX ALNM BLDG SLS 657-7355+5
 30249*MAISEYS RUG SHOP 926-2663 4
 * 20 BUS 14 RES 10 NEW

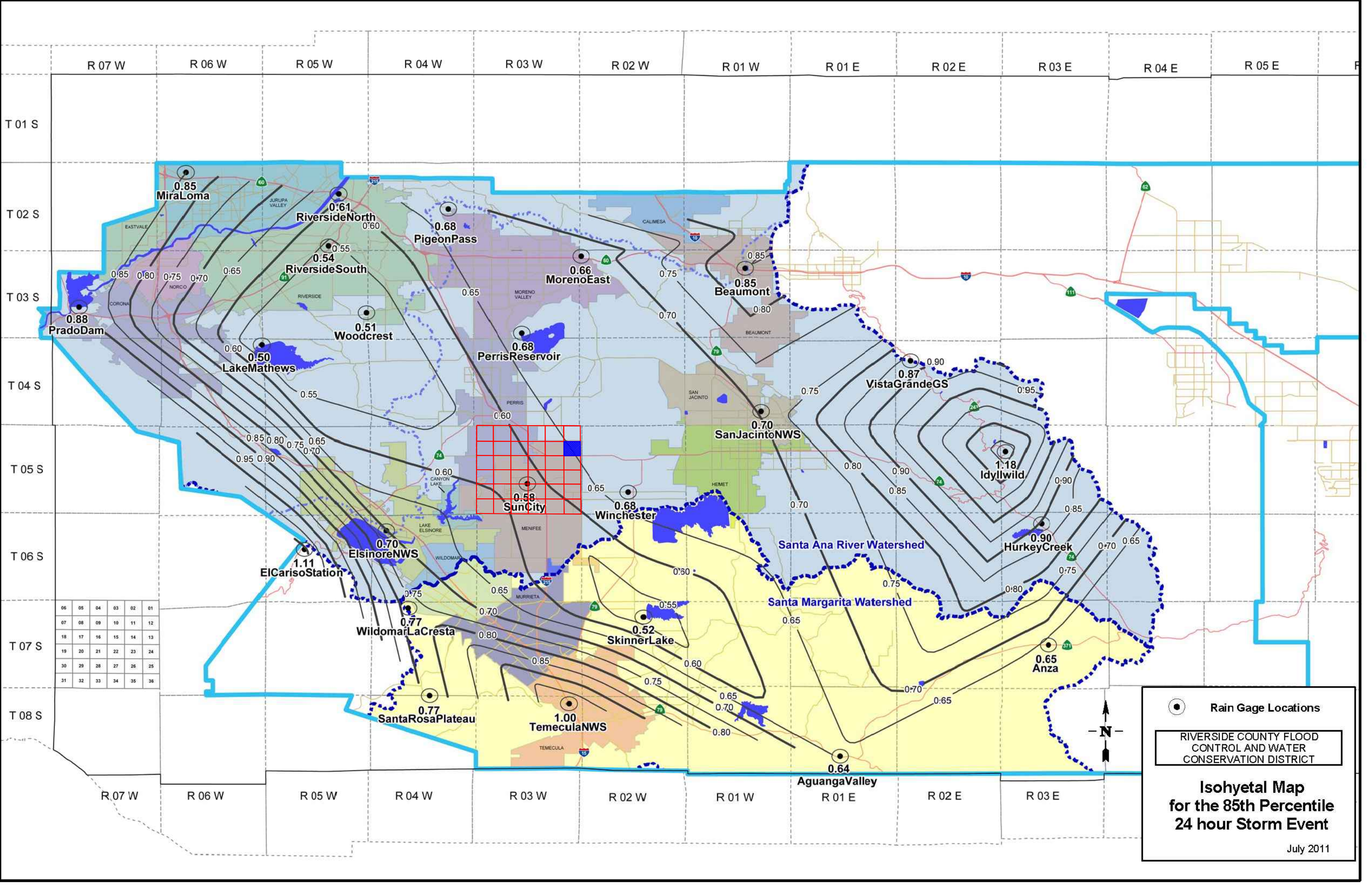
Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Isohyetal Map for the 85th Percentile 24-hour Storm Event



RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Isohyetal Map for the 85th Percentile 24 hour Storm Event

July 2011

Santa Ana Watershed Design Volume Spreadsheet

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 JLC Engineering and Consulting, Inc.						Date 2/9/2017			
Designed by						Case No			
Company Project Number/Name									
BMP Identification									
BMP NAME / ID DMA B									
<i>Must match Name/ID used on BMP Design Calculation Sheet</i>									
Design Rainfall Depth									
85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E						$D_{85} =$ 0.65 inches			
Drainage Management Area Tabulation									
<i>Insert additional rows if needed to accommodate all DMAs draining to the BMP</i>									
DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivious 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)	
B-1	25090.56	Concrete or Asphalt	1	0.89	22380.8				
B-2	2,787.84	Turf block	0.1	0.11	307.9				
27878.4		Total			22688.7				0.65	1229	8138
Notes:									

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 JLC Engineering and Consulting, Inc.						Date 7/25/2017			
Designed by Jilleen Ferris						Case No MR 56			
Company Project Number/Name MR 56 - Commercial Site									
BMP Identification									
BMP NAME / ID DMA C									
<i>Must match Name/ID used on BMP Design Calculation Sheet</i>									
Design Rainfall Depth									
85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E						$D_{85} = $ 0.65 inches			
Drainage Management Area Tabulation									
<i>Insert additional rows if needed to accommodate all DMAs draining to the BMP</i>									
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)	
C-1	103733.307	Concrete or Asphalt	1	0.89	92530.1				
C-2	11,525.92	Turf block	0.1	0.11	1273.1				
C-3	6098.4	Ornamental Landscaping	0.1	0.11	673.6				
121357.63		Total			94476.8				0.65	5117.5	5,118
Notes:									

Santa Ana Watershed Bioretention Basin Design Spreadsheets

Bioretention Basin "A"

Bottom Area	4932.08
Soil Media Depth	2.5
Gravel Depth	1

Total Available Volume at 0.5' above soil media	8137.93
---	---------

Bioretention Basin "B"

Bottom Area	2940
Soil Media Depth	3
Gravel Depth	1

Total Available Volume at 0.5' above soil media	5292.00
---	---------

Bioretention Facility - Design Procedure		BMP ID A	Legend:	Required Entries	
				Calculated Cells	
Company Name:	JLC Engineering and Consulting, Inc.		Date:	7/25/2017	
Designed by:	Jilleen Ferris		County/City Case No.:	MR 56	
Design Volume					
Enter the area tributary to this feature			$A_T =$	4.14	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook			$V_{BMP} =$	7,879	ft ³
Type of Bioretention Facility Design					
<input checked="" type="radio"/> Side slopes required (parallel to parking spaces or adjacent to walkways) <input type="radio"/> No side slopes required (perpendicular to parking space or Planter Boxes)					
Bioretention Facility Surface Area					
Depth of Soil Filter Media Layer			$d_S =$	2.5	ft
Top Width of Bioretention Facility, excluding curb			$w_T =$	24.8	ft
Total Effective Depth, d_E $d_E = (0.3) \times d_S + (0.4) \times 1 - (0.7/w_T) + 0.5$			$d_E =$	1.62	ft
Minimum Surface Area, A_m $A_M (ft^2) = \frac{V_{BMP} (ft^3)}{d_E (ft)}$			$A_M =$	4,859	ft ²
Proposed Surface Area			$A =$	4,932	ft ²
Bioretention Facility Properties					
Side Slopes in Bioretention Facility			$z =$	4	:1
Diameter of Underdrain				6	inches
Longitudinal Slope of Site (3% maximum)				0.3	%
6" Check Dam Spacing				0	feet
Describe Vegetation:					
Notes:					

Bioretention Facility - Design Procedure		BMP ID B	Legend:	Required Entries	
				Calculated Cells	
Company Name:	JLC Engineering and Consulting, Inc.		Date:	7/25/2017	
Designed by:	Jilleen Ferris		County/City Case No.:	MR 56	
Design Volume					
Enter the area tributary to this feature			$A_T =$	2.79	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook			$V_{BMP} =$	5,118	ft ³
Type of Bioretention Facility Design					
<input checked="" type="radio"/> Side slopes required (parallel to parking spaces or adjacent to walkways) <input type="radio"/> No side slopes required (perpendicular to parking space or Planter Boxes)					
Bioretention Facility Surface Area					
Depth of Soil Filter Media Layer			$d_S =$	3.0	ft
Top Width of Bioretention Facility, excluding curb			$w_T =$	20.0	ft
Total Effective Depth, d_E $d_E = (0.3) \times d_S + (0.4) \times 1 - (0.7/w_T) + 0.5$			$d_E =$	1.77	ft
Minimum Surface Area, A_m $A_M (ft^2) = \frac{V_{BMP} (ft^3)}{d_E (ft)}$			$A_M =$	2,900	ft ²
Proposed Surface Area			$A =$	2,940	ft ²
Bioretention Facility Properties					
Side Slopes in Bioretention Facility			$z =$	4	:1
Diameter of Underdrain				6	inches
Longitudinal Slope of Site (3% maximum)				0.3	%
6" Check Dam Spacing				0	feet
Describe Vegetation:					
Notes:					

Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

		PRE-PROJECT			POST-PROJECT		
		Q (cfs)	VOL (ac-ft)	VOL (cu. Ft.)	Q (cfs)	VOL (ac-ft)	VOL (cu. Ft.)
2-YEAR	1-hour	3.514	0.1235	5,379.7	7.415	0.2421	10,545.9
	3-hour	1.649	0.1413	6,155.0	4.092	0.3945	17,184.4
	6-hour	1.073	0.1646	7,170.0	3.294	0.4928	21,466.4
	24-hour	0.419	0.2611	11,373.5	1.292	0.7885	34,347.1
5-YEAR	1-hour	5.958	0.1984	8,642.3	10.94	0.3481	15,163.2
	3-hour	3.172	0.2173	9,465.6	5.791	0.5209	22,690.4
	6-hour	2.216	0.2424	10,558.9	4.549	0.6693	29,154.7
	24-hour	0.573	0.3567	15,537.9	1.765	1.077	46,914.1
10-YEAR	1-hour	9.452	0.3416	14,880.1	14.276	0.452	19,689.1
	3-hour	5.861	0.363	15,812.3	7.929	0.6496	28,296.6
	6-hour	4.857	0.4017	17,498.1	6.56	0.835	36,372.6
	24-hour	0.689	0.429	18,687.2	2.123	1.2953	56,423.3
100-YEAR	1-hour	16.77	0.6909	30,095.6	23.791	0.7868	34,273.0

2-Year, 24-Hour Storm Duration Pre-Project Condition Unit Hydrograph Calculations

Unit Hydrograph Analysis

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2014, Version 9.0
Study date 09/12/18 File: ARAPRE242.out

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6279

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

250.02.16

UNIT HYDROGRAPH FOR AREA A
EXISTING CONDITION
FN: ARAPRE

Drainage Area = 9.60 (Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.60 (Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 3338.00 (Ft.)
Length along longest watercourse measured to centroid = 1232.00 (Ft.)
Length along longest watercourse = 0.632 Mi.
Length along longest watercourse measured to centroid = 0.233 Mi.
Difference in elevation = 34.70 (Ft.)
Slope along watercourse = 54.8880 Ft./Mi.
Average Manning's 'N' = 0.030
Lag time = 0.163 Hr.
Lag time = 9.75 Min.
25% of lag time = 2.44 Min.
40% of lag time = 3.90 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00 (CFS)

2 YEAR Area rainfall data:

Area (Ac.) [1]	Rainfall (In) [2]	Weighting [1*2]
9.60	1.60	15.36

100 YEAR Area rainfall data:

Area (Ac.) [1]	Rainfall (In) [2]	Weighting [1*2]
9.60	4.10	39.36

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 1.600 (In)
Area Averaged 100-Year Rainfall = 4.100 (In)

Point rain (area averaged) = 1.600 (In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 1.600 (In)

Sub-Area Data:

Area (Ac.)	Runoff Index	Impervious %
9.600	68.26	0.130
Total Area Entered = 9.60 (Ac.)		

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-1	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)
68.3	48.9	0.583	0.130	0.514	1.000	0.514
					Sum (F) =	0.514

Area averaged mean soil loss (F) (In/Hr) = 0.514
Minimum soil loss rate ((In/Hr)) = 0.257
(for 24 hour storm duration)
Soil loss rate (decimal) = 0.796

Unit Hydrograph VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	51.266	0.616
2	0.167	102.533	2.634
3	0.250	153.799	2.777
4	0.333	205.065	1.211
5	0.417	256.331	0.646
6	0.500	307.598	0.450
7	0.583	358.864	0.323
8	0.667	410.130	0.244
9	0.750	461.397	0.178
10	0.833	512.663	0.151
11	0.917	563.929	0.120
12	1.000	615.195	0.094
13	1.083	666.462	0.073
14	1.167	717.728	0.054
15	1.250	768.994	0.050
16	1.333	820.260	0.055
		Sum = 100.000	Sum= 9.675

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate (In./Hr)		Effective (In/Hr)
			Max	Low	
1	0.08	0.07	0.013	(0.912)	0.010
2	0.17	0.07	0.013	(0.909)	0.010
3	0.25	0.07	0.013	(0.905)	0.010
4	0.33	0.10	0.019	(0.901)	0.015
5	0.42	0.10	0.019	(0.898)	0.015
6	0.50	0.10	0.019	(0.894)	0.015
7	0.58	0.10	0.019	(0.891)	0.015
8	0.67	0.10	0.019	(0.888)	0.015
9	0.75	0.10	0.019	(0.884)	0.015
10	0.83	0.13	0.026	(0.881)	0.020
11	0.92	0.13	0.026	(0.877)	0.020
12	1.00	0.13	0.026	(0.874)	0.020
13	1.08	0.10	0.019	(0.870)	0.015
14	1.17	0.10	0.019	(0.867)	0.015
15	1.25	0.10	0.019	(0.863)	0.015
16	1.33	0.10	0.019	(0.860)	0.015
17	1.42	0.10	0.019	(0.856)	0.015
18	1.50	0.10	0.019	(0.853)	0.015
19	1.58	0.10	0.019	(0.850)	0.015
20	1.67	0.10	0.019	(0.846)	0.015
21	1.75	0.10	0.019	(0.843)	0.015
22	1.83	0.13	0.026	(0.839)	0.020
23	1.92	0.13	0.026	(0.836)	0.020
24	2.00	0.13	0.026	(0.833)	0.020
25	2.08	0.13	0.026	(0.829)	0.020
26	2.17	0.13	0.026	(0.826)	0.020

27	2.25	0.13	0.026	(0.823)	0.020	0.005
28	2.33	0.13	0.026	(0.819)	0.020	0.005
29	2.42	0.13	0.026	(0.816)	0.020	0.005
30	2.50	0.13	0.026	(0.813)	0.020	0.005
31	2.58	0.17	0.032	(0.809)	0.025	0.007
32	2.67	0.17	0.032	(0.806)	0.025	0.007
33	2.75	0.17	0.032	(0.803)	0.025	0.007
34	2.83	0.17	0.032	(0.799)	0.025	0.007
35	2.92	0.17	0.032	(0.796)	0.025	0.007
36	3.00	0.17	0.032	(0.793)	0.025	0.007
37	3.08	0.17	0.032	(0.789)	0.025	0.007
38	3.17	0.17	0.032	(0.786)	0.025	0.007
39	3.25	0.17	0.032	(0.783)	0.025	0.007
40	3.33	0.17	0.032	(0.780)	0.025	0.007
41	3.42	0.17	0.032	(0.776)	0.025	0.007
42	3.50	0.17	0.032	(0.773)	0.025	0.007
43	3.58	0.17	0.032	(0.770)	0.025	0.007
44	3.67	0.17	0.032	(0.767)	0.025	0.007
45	3.75	0.17	0.032	(0.763)	0.025	0.007
46	3.83	0.20	0.038	(0.760)	0.031	0.008
47	3.92	0.20	0.038	(0.757)	0.031	0.008
48	4.00	0.20	0.038	(0.754)	0.031	0.008
49	4.08	0.20	0.038	(0.751)	0.031	0.008
50	4.17	0.20	0.038	(0.747)	0.031	0.008
51	4.25	0.20	0.038	(0.744)	0.031	0.008
52	4.33	0.23	0.045	(0.741)	0.036	0.009
53	4.42	0.23	0.045	(0.738)	0.036	0.009
54	4.50	0.23	0.045	(0.735)	0.036	0.009
55	4.58	0.23	0.045	(0.732)	0.036	0.009
56	4.67	0.23	0.045	(0.728)	0.036	0.009
57	4.75	0.23	0.045	(0.725)	0.036	0.009
58	4.83	0.27	0.051	(0.722)	0.041	0.010
59	4.92	0.27	0.051	(0.719)	0.041	0.010
60	5.00	0.27	0.051	(0.716)	0.041	0.010
61	5.08	0.20	0.038	(0.713)	0.031	0.008
62	5.17	0.20	0.038	(0.710)	0.031	0.008
63	5.25	0.20	0.038	(0.707)	0.031	0.008
64	5.33	0.23	0.045	(0.704)	0.036	0.009
65	5.42	0.23	0.045	(0.700)	0.036	0.009
66	5.50	0.23	0.045	(0.697)	0.036	0.009
67	5.58	0.27	0.051	(0.694)	0.041	0.010
68	5.67	0.27	0.051	(0.691)	0.041	0.010
69	5.75	0.27	0.051	(0.688)	0.041	0.010
70	5.83	0.27	0.051	(0.685)	0.041	0.010
71	5.92	0.27	0.051	(0.682)	0.041	0.010
72	6.00	0.27	0.051	(0.679)	0.041	0.010
73	6.08	0.30	0.058	(0.676)	0.046	0.012
74	6.17	0.30	0.058	(0.673)	0.046	0.012
75	6.25	0.30	0.058	(0.670)	0.046	0.012
76	6.33	0.30	0.058	(0.667)	0.046	0.012
77	6.42	0.30	0.058	(0.664)	0.046	0.012
78	6.50	0.30	0.058	(0.661)	0.046	0.012
79	6.58	0.33	0.064	(0.658)	0.051	0.013
80	6.67	0.33	0.064	(0.655)	0.051	0.013
81	6.75	0.33	0.064	(0.652)	0.051	0.013
82	6.83	0.33	0.064	(0.649)	0.051	0.013
83	6.92	0.33	0.064	(0.646)	0.051	0.013
84	7.00	0.33	0.064	(0.643)	0.051	0.013
85	7.08	0.33	0.064	(0.641)	0.051	0.013
86	7.17	0.33	0.064	(0.638)	0.051	0.013
87	7.25	0.33	0.064	(0.635)	0.051	0.013
88	7.33	0.37	0.070	(0.632)	0.056	0.014
89	7.42	0.37	0.070	(0.629)	0.056	0.014
90	7.50	0.37	0.070	(0.626)	0.056	0.014
91	7.58	0.40	0.077	(0.623)	0.061	0.016
92	7.67	0.40	0.077	(0.620)	0.061	0.016
93	7.75	0.40	0.077	(0.617)	0.061	0.016
94	7.83	0.43	0.083	(0.615)	0.066	0.017
95	7.92	0.43	0.083	(0.612)	0.066	0.017
96	8.00	0.43	0.083	(0.609)	0.066	0.017
97	8.08	0.50	0.096	(0.606)	0.076	0.020

98	8.17	0.50	0.096	(0.603)	0.076	0.020
99	8.25	0.50	0.096	(0.600)	0.076	0.020
100	8.33	0.50	0.096	(0.598)	0.076	0.020
101	8.42	0.50	0.096	(0.595)	0.076	0.020
102	8.50	0.50	0.096	(0.592)	0.076	0.020
103	8.58	0.53	0.102	(0.589)	0.082	0.021
104	8.67	0.53	0.102	(0.586)	0.082	0.021
105	8.75	0.53	0.102	(0.584)	0.082	0.021
106	8.83	0.57	0.109	(0.581)	0.087	0.022
107	8.92	0.57	0.109	(0.578)	0.087	0.022
108	9.00	0.57	0.109	(0.575)	0.087	0.022
109	9.08	0.63	0.122	(0.573)	0.097	0.025
110	9.17	0.63	0.122	(0.570)	0.097	0.025
111	9.25	0.63	0.122	(0.567)	0.097	0.025
112	9.33	0.67	0.128	(0.565)	0.102	0.026
113	9.42	0.67	0.128	(0.562)	0.102	0.026
114	9.50	0.67	0.128	(0.559)	0.102	0.026
115	9.58	0.70	0.134	(0.557)	0.107	0.027
116	9.67	0.70	0.134	(0.554)	0.107	0.027
117	9.75	0.70	0.134	(0.551)	0.107	0.027
118	9.83	0.73	0.141	(0.549)	0.112	0.029
119	9.92	0.73	0.141	(0.546)	0.112	0.029
120	10.00	0.73	0.141	(0.543)	0.112	0.029
121	10.08	0.50	0.096	(0.541)	0.076	0.020
122	10.17	0.50	0.096	(0.538)	0.076	0.020
123	10.25	0.50	0.096	(0.535)	0.076	0.020
124	10.33	0.50	0.096	(0.533)	0.076	0.020
125	10.42	0.50	0.096	(0.530)	0.076	0.020
126	10.50	0.50	0.096	(0.528)	0.076	0.020
127	10.58	0.67	0.128	(0.525)	0.102	0.026
128	10.67	0.67	0.128	(0.523)	0.102	0.026
129	10.75	0.67	0.128	(0.520)	0.102	0.026
130	10.83	0.67	0.128	(0.517)	0.102	0.026
131	10.92	0.67	0.128	(0.515)	0.102	0.026
132	11.00	0.67	0.128	(0.512)	0.102	0.026
133	11.08	0.63	0.122	(0.510)	0.097	0.025
134	11.17	0.63	0.122	(0.507)	0.097	0.025
135	11.25	0.63	0.122	(0.505)	0.097	0.025
136	11.33	0.63	0.122	(0.502)	0.097	0.025
137	11.42	0.63	0.122	(0.500)	0.097	0.025
138	11.50	0.63	0.122	(0.497)	0.097	0.025
139	11.58	0.57	0.109	(0.495)	0.087	0.022
140	11.67	0.57	0.109	(0.492)	0.087	0.022
141	11.75	0.57	0.109	(0.490)	0.087	0.022
142	11.83	0.60	0.115	(0.488)	0.092	0.024
143	11.92	0.60	0.115	(0.485)	0.092	0.024
144	12.00	0.60	0.115	(0.483)	0.092	0.024
145	12.08	0.83	0.160	(0.480)	0.127	0.033
146	12.17	0.83	0.160	(0.478)	0.127	0.033
147	12.25	0.83	0.160	(0.475)	0.127	0.033
148	12.33	0.87	0.166	(0.473)	0.132	0.034
149	12.42	0.87	0.166	(0.471)	0.132	0.034
150	12.50	0.87	0.166	(0.468)	0.132	0.034
151	12.58	0.93	0.179	(0.466)	0.143	0.037
152	12.67	0.93	0.179	(0.464)	0.143	0.037
153	12.75	0.93	0.179	(0.461)	0.143	0.037
154	12.83	0.97	0.186	(0.459)	0.148	0.038
155	12.92	0.97	0.186	(0.457)	0.148	0.038
156	13.00	0.97	0.186	(0.454)	0.148	0.038
157	13.08	1.13	0.218	(0.452)	0.173	0.044
158	13.17	1.13	0.218	(0.450)	0.173	0.044
159	13.25	1.13	0.218	(0.447)	0.173	0.044
160	13.33	1.13	0.218	(0.445)	0.173	0.044
161	13.42	1.13	0.218	(0.443)	0.173	0.044
162	13.50	1.13	0.218	(0.441)	0.173	0.044
163	13.58	0.77	0.147	(0.438)	0.117	0.030
164	13.67	0.77	0.147	(0.436)	0.117	0.030
165	13.75	0.77	0.147	(0.434)	0.117	0.030
166	13.83	0.77	0.147	(0.432)	0.117	0.030
167	13.92	0.77	0.147	(0.430)	0.117	0.030
168	14.00	0.77	0.147	(0.427)	0.117	0.030

169	14.08	0.90	0.173	(0.425)	0.138	0.035
170	14.17	0.90	0.173	(0.423)	0.138	0.035
171	14.25	0.90	0.173	(0.421)	0.138	0.035
172	14.33	0.87	0.166	(0.419)	0.132	0.034
173	14.42	0.87	0.166	(0.417)	0.132	0.034
174	14.50	0.87	0.166	(0.414)	0.132	0.034
175	14.58	0.87	0.166	(0.412)	0.132	0.034
176	14.67	0.87	0.166	(0.410)	0.132	0.034
177	14.75	0.87	0.166	(0.408)	0.132	0.034
178	14.83	0.83	0.160	(0.406)	0.127	0.033
179	14.92	0.83	0.160	(0.404)	0.127	0.033
180	15.00	0.83	0.160	(0.402)	0.127	0.033
181	15.08	0.80	0.154	(0.400)	0.122	0.031
182	15.17	0.80	0.154	(0.398)	0.122	0.031
183	15.25	0.80	0.154	(0.396)	0.122	0.031
184	15.33	0.77	0.147	(0.394)	0.117	0.030
185	15.42	0.77	0.147	(0.392)	0.117	0.030
186	15.50	0.77	0.147	(0.390)	0.117	0.030
187	15.58	0.63	0.122	(0.388)	0.097	0.025
188	15.67	0.63	0.122	(0.386)	0.097	0.025
189	15.75	0.63	0.122	(0.384)	0.097	0.025
190	15.83	0.63	0.122	(0.382)	0.097	0.025
191	15.92	0.63	0.122	(0.380)	0.097	0.025
192	16.00	0.63	0.122	(0.378)	0.097	0.025
193	16.08	0.13	0.026	(0.376)	0.020	0.005
194	16.17	0.13	0.026	(0.374)	0.020	0.005
195	16.25	0.13	0.026	(0.372)	0.020	0.005
196	16.33	0.13	0.026	(0.370)	0.020	0.005
197	16.42	0.13	0.026	(0.368)	0.020	0.005
198	16.50	0.13	0.026	(0.366)	0.020	0.005
199	16.58	0.10	0.019	(0.365)	0.015	0.004
200	16.67	0.10	0.019	(0.363)	0.015	0.004
201	16.75	0.10	0.019	(0.361)	0.015	0.004
202	16.83	0.10	0.019	(0.359)	0.015	0.004
203	16.92	0.10	0.019	(0.357)	0.015	0.004
204	17.00	0.10	0.019	(0.355)	0.015	0.004
205	17.08	0.17	0.032	(0.354)	0.025	0.007
206	17.17	0.17	0.032	(0.352)	0.025	0.007
207	17.25	0.17	0.032	(0.350)	0.025	0.007
208	17.33	0.17	0.032	(0.348)	0.025	0.007
209	17.42	0.17	0.032	(0.347)	0.025	0.007
210	17.50	0.17	0.032	(0.345)	0.025	0.007
211	17.58	0.17	0.032	(0.343)	0.025	0.007
212	17.67	0.17	0.032	(0.341)	0.025	0.007
213	17.75	0.17	0.032	(0.340)	0.025	0.007
214	17.83	0.13	0.026	(0.338)	0.020	0.005
215	17.92	0.13	0.026	(0.336)	0.020	0.005
216	18.00	0.13	0.026	(0.335)	0.020	0.005
217	18.08	0.13	0.026	(0.333)	0.020	0.005
218	18.17	0.13	0.026	(0.331)	0.020	0.005
219	18.25	0.13	0.026	(0.330)	0.020	0.005
220	18.33	0.13	0.026	(0.328)	0.020	0.005
221	18.42	0.13	0.026	(0.327)	0.020	0.005
222	18.50	0.13	0.026	(0.325)	0.020	0.005
223	18.58	0.10	0.019	(0.323)	0.015	0.004
224	18.67	0.10	0.019	(0.322)	0.015	0.004
225	18.75	0.10	0.019	(0.320)	0.015	0.004
226	18.83	0.07	0.013	(0.319)	0.010	0.003
227	18.92	0.07	0.013	(0.317)	0.010	0.003
228	19.00	0.07	0.013	(0.316)	0.010	0.003
229	19.08	0.10	0.019	(0.314)	0.015	0.004
230	19.17	0.10	0.019	(0.313)	0.015	0.004
231	19.25	0.10	0.019	(0.311)	0.015	0.004
232	19.33	0.13	0.026	(0.310)	0.020	0.005
233	19.42	0.13	0.026	(0.308)	0.020	0.005
234	19.50	0.13	0.026	(0.307)	0.020	0.005
235	19.58	0.10	0.019	(0.306)	0.015	0.004
236	19.67	0.10	0.019	(0.304)	0.015	0.004
237	19.75	0.10	0.019	(0.303)	0.015	0.004
238	19.83	0.07	0.013	(0.301)	0.010	0.003
239	19.92	0.07	0.013	(0.300)	0.010	0.003

240	20.00	0.07	0.013	(0.299)	0.010	0.003
241	20.08	0.10	0.019	(0.297)	0.015	0.004
242	20.17	0.10	0.019	(0.296)	0.015	0.004
243	20.25	0.10	0.019	(0.295)	0.015	0.004
244	20.33	0.10	0.019	(0.294)	0.015	0.004
245	20.42	0.10	0.019	(0.292)	0.015	0.004
246	20.50	0.10	0.019	(0.291)	0.015	0.004
247	20.58	0.10	0.019	(0.290)	0.015	0.004
248	20.67	0.10	0.019	(0.289)	0.015	0.004
249	20.75	0.10	0.019	(0.287)	0.015	0.004
250	20.83	0.07	0.013	(0.286)	0.010	0.003
251	20.92	0.07	0.013	(0.285)	0.010	0.003
252	21.00	0.07	0.013	(0.284)	0.010	0.003
253	21.08	0.10	0.019	(0.283)	0.015	0.004
254	21.17	0.10	0.019	(0.282)	0.015	0.004
255	21.25	0.10	0.019	(0.281)	0.015	0.004
256	21.33	0.07	0.013	(0.280)	0.010	0.003
257	21.42	0.07	0.013	(0.279)	0.010	0.003
258	21.50	0.07	0.013	(0.277)	0.010	0.003
259	21.58	0.10	0.019	(0.276)	0.015	0.004
260	21.67	0.10	0.019	(0.275)	0.015	0.004
261	21.75	0.10	0.019	(0.274)	0.015	0.004
262	21.83	0.07	0.013	(0.274)	0.010	0.003
263	21.92	0.07	0.013	(0.273)	0.010	0.003
264	22.00	0.07	0.013	(0.272)	0.010	0.003
265	22.08	0.10	0.019	(0.271)	0.015	0.004
266	22.17	0.10	0.019	(0.270)	0.015	0.004
267	22.25	0.10	0.019	(0.269)	0.015	0.004
268	22.33	0.07	0.013	(0.268)	0.010	0.003
269	22.42	0.07	0.013	(0.267)	0.010	0.003
270	22.50	0.07	0.013	(0.267)	0.010	0.003
271	22.58	0.07	0.013	(0.266)	0.010	0.003
272	22.67	0.07	0.013	(0.265)	0.010	0.003
273	22.75	0.07	0.013	(0.264)	0.010	0.003
274	22.83	0.07	0.013	(0.264)	0.010	0.003
275	22.92	0.07	0.013	(0.263)	0.010	0.003
276	23.00	0.07	0.013	(0.262)	0.010	0.003
277	23.08	0.07	0.013	(0.262)	0.010	0.003
278	23.17	0.07	0.013	(0.261)	0.010	0.003
279	23.25	0.07	0.013	(0.261)	0.010	0.003
280	23.33	0.07	0.013	(0.260)	0.010	0.003
281	23.42	0.07	0.013	(0.260)	0.010	0.003
282	23.50	0.07	0.013	(0.259)	0.010	0.003
283	23.58	0.07	0.013	(0.259)	0.010	0.003
284	23.67	0.07	0.013	(0.258)	0.010	0.003
285	23.75	0.07	0.013	(0.258)	0.010	0.003
286	23.83	0.07	0.013	(0.258)	0.010	0.003
287	23.92	0.07	0.013	(0.257)	0.010	0.003
288	24.00	0.07	0.013	(0.257)	0.010	0.003

(Loss Rate Not Used)

Sum = 100.0 Sum = 3.9

Flood volume = Effective rainfall 0.33(In)
times area 9.6(Ac.)/[(In)/(Ft.)] = 0.3(Ac.Ft)

Total soil loss = 1.27(In)
Total soil loss = 1.019(Ac.Ft)
Total rainfall = 1.60(In)
Flood volume = 11374.2 Cubic Feet
Total soil loss = 44381.6 Cubic Feet

Peak flow rate of this hydrograph = 0.419(CFS)

24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0000	0.00	Q	|	|	|	|

0+10	0.0001	0.01	Q
0+15	0.0002	0.02	Q
0+20	0.0003	0.02	Q
0+25	0.0005	0.02	Q
0+30	0.0007	0.03	Q
0+35	0.0009	0.03	Q
0+40	0.0011	0.03	Q
0+45	0.0014	0.03	Q
0+50	0.0016	0.04	Q
0+55	0.0019	0.04	Q
1+ 0	0.0022	0.04	Q
1+ 5	0.0025	0.05	Q
1+10	0.0028	0.04	Q
1+15	0.0031	0.04	Q
1+20	0.0034	0.04	Q
1+25	0.0036	0.04	Q
1+30	0.0039	0.04	Q
1+35	0.0042	0.04	Q
1+40	0.0044	0.04	Q
1+45	0.0047	0.04	Q
1+50	0.0050	0.04	Q
1+55	0.0053	0.04	Q
2+ 0	0.0056	0.05	Q
2+ 5	0.0059	0.05	Q
2+10	0.0062	0.05	Q
2+15	0.0066	0.05	QV
2+20	0.0069	0.05	QV
2+25	0.0073	0.05	QV
2+30	0.0076	0.05	QV
2+35	0.0080	0.05	QV
2+40	0.0083	0.05	QV
2+45	0.0087	0.06	QV
2+50	0.0091	0.06	QV
2+55	0.0096	0.06	QV
3+ 0	0.0100	0.06	QV
3+ 5	0.0104	0.06	QV
3+10	0.0108	0.06	QV
3+15	0.0113	0.06	QV
3+20	0.0117	0.06	QV
3+25	0.0121	0.06	QV
3+30	0.0126	0.06	QV
3+35	0.0130	0.06	QV
3+40	0.0134	0.06	Q V
3+45	0.0139	0.06	Q V
3+50	0.0143	0.06	Q V
3+55	0.0148	0.07	Q V
4+ 0	0.0153	0.07	Q V
4+ 5	0.0158	0.07	Q V
4+10	0.0163	0.07	Q V
4+15	0.0168	0.07	Q V
4+20	0.0173	0.08	Q V
4+25	0.0178	0.08	Q V
4+30	0.0184	0.08	Q V
4+35	0.0190	0.08	Q V
4+40	0.0196	0.09	Q V
4+45	0.0202	0.09	Q V
4+50	0.0208	0.09	Q V
4+55	0.0214	0.09	Q V
5+ 0	0.0221	0.10	Q V
5+ 5	0.0227	0.10	Q V
5+10	0.0234	0.09	Q V
5+15	0.0239	0.08	Q V
5+20	0.0245	0.08	Q V
5+25	0.0251	0.08	Q V
5+30	0.0257	0.09	Q V
5+35	0.0263	0.09	Q V
5+40	0.0269	0.09	Q V
5+45	0.0276	0.10	Q V
5+50	0.0282	0.10	Q V
5+55	0.0289	0.10	Q V
6+ 0	0.0296	0.10	Q V

6+ 5	0.0303	0.10	Q V
6+10	0.0310	0.10	Q V
6+15	0.0317	0.11	Q V
6+20	0.0325	0.11	Q V
6+25	0.0333	0.11	Q V
6+30	0.0340	0.11	Q V
6+35	0.0348	0.11	Q V
6+40	0.0356	0.12	Q V
6+45	0.0364	0.12	Q V
6+50	0.0373	0.12	Q V
6+55	0.0381	0.12	Q V
7+ 0	0.0390	0.12	Q V
7+ 5	0.0399	0.12	Q V
7+10	0.0407	0.13	Q V
7+15	0.0416	0.13	Q V
7+20	0.0425	0.13	Q V
7+25	0.0434	0.13	Q V
7+30	0.0443	0.13	Q V
7+35	0.0452	0.14	Q V
7+40	0.0462	0.14	Q V
7+45	0.0472	0.15	Q V
7+50	0.0482	0.15	Q V
7+55	0.0493	0.15	Q V
8+ 0	0.0503	0.16	Q V
8+ 5	0.0514	0.16	Q V
8+10	0.0526	0.17	Q V
8+15	0.0538	0.18	Q V
8+20	0.0551	0.18	Q V
8+25	0.0563	0.18	Q V
8+30	0.0576	0.18	Q V
8+35	0.0589	0.19	Q V
8+40	0.0602	0.19	Q V
8+45	0.0616	0.20	Q V
8+50	0.0629	0.20	Q V
8+55	0.0643	0.20	Q V
9+ 0	0.0658	0.21	Q V
9+ 5	0.0672	0.21	Q V
9+10	0.0687	0.22	Q V
9+15	0.0703	0.23	Q V
9+20	0.0719	0.23	Q V
9+25	0.0735	0.24	Q V
9+30	0.0752	0.24	Q V
9+35	0.0769	0.25	Q V
9+40	0.0787	0.25	Q V
9+45	0.0804	0.26	Q V
9+50	0.0822	0.26	Q V
9+55	0.0840	0.27	Q V
10+ 0	0.0859	0.27	Q V
10+ 5	0.0877	0.27	Q V
10+10	0.0894	0.24	Q V
10+15	0.0909	0.22	Q V
10+20	0.0924	0.21	Q V
10+25	0.0938	0.20	Q V
10+30	0.0952	0.20	Q V
10+35	0.0966	0.20	Q V
10+40	0.0981	0.22	Q V
10+45	0.0997	0.23	Q V
10+50	0.1013	0.24	Q V
10+55	0.1030	0.24	Q V
11+ 0	0.1047	0.25	Q V
11+ 5	0.1064	0.25	Q V
11+10	0.1081	0.24	Q V
11+15	0.1097	0.24	Q V
11+20	0.1114	0.24	Q V
11+25	0.1131	0.24	Q V
11+30	0.1147	0.24	Q V
11+35	0.1164	0.24	Q V
11+40	0.1180	0.23	Q V
11+45	0.1195	0.22	Q V
11+50	0.1210	0.22	Q V
11+55	0.1226	0.22	Q V

12+ 0	0.1241	0.23	Q	V				17+55	0.2432	0.06	Q				V
12+ 5	0.1257	0.23	Q	V				18+ 0	0.2436	0.05	Q				V
12+10	0.1275	0.26	Q	V				18+ 5	0.2439	0.05	Q				V
12+15	0.1295	0.28	Q	V				18+10	0.2443	0.05	Q				V
12+20	0.1315	0.29	Q	V				18+15	0.2447	0.05	Q				V
12+25	0.1336	0.30	Q	V				18+20	0.2450	0.05	Q				V
12+30	0.1357	0.31	Q	V				18+25	0.2454	0.05	Q				V
12+35	0.1379	0.32	Q	V				18+30	0.2457	0.05	Q				V
12+40	0.1402	0.33	Q	V				18+35	0.2461	0.05	Q				V
12+45	0.1425	0.34	Q	V				18+40	0.2464	0.05	Q				V
12+50	0.1448	0.34	Q	V				18+45	0.2467	0.04	Q				V
12+55	0.1473	0.35	Q	V				18+50	0.2470	0.04	Q				V
13+ 0	0.1497	0.36	Q	V				18+55	0.2472	0.04	Q				V
13+ 5	0.1522	0.36	Q	V				19+ 0	0.2474	0.03	Q				V
13+10	0.1548	0.38	Q	V				19+ 5	0.2476	0.03	Q				V
13+15	0.1576	0.40	Q	V				19+10	0.2479	0.03	Q				V
13+20	0.1604	0.41	Q	V				19+15	0.2481	0.04	Q				V
13+25	0.1633	0.42	Q	V				19+20	0.2484	0.04	Q				V
13+30	0.1662	0.42	Q	V				19+25	0.2487	0.04	Q				V
13+35	0.1690	0.41	Q	V				19+30	0.2490	0.05	Q				V
13+40	0.1716	0.38	Q	V				19+35	0.2493	0.05	Q				V
13+45	0.1740	0.34	Q	V				19+40	0.2496	0.04	Q				V
13+50	0.1762	0.32	Q	V				19+45	0.2499	0.04	Q				V
13+55	0.1783	0.31	Q	V				19+50	0.2501	0.04	Q				V
14+ 0	0.1805	0.31	Q	V				19+55	0.2504	0.03	Q				V
14+ 5	0.1826	0.31	Q	V				20+ 0	0.2506	0.03	Q				V
14+10	0.1848	0.32	Q	V				20+ 5	0.2508	0.03	Q				V
14+15	0.1870	0.33	Q	V				20+10	0.2510	0.03	Q				V
14+20	0.1894	0.33	Q	V				20+15	0.2513	0.04	Q				V
14+25	0.1916	0.33	Q	V				20+20	0.2515	0.04	Q				V
14+30	0.1939	0.33	Q	V				20+25	0.2518	0.04	Q				V
14+35	0.1962	0.33	Q	V				20+30	0.2520	0.04	Q				V
14+40	0.1984	0.33	Q	V				20+35	0.2523	0.04	Q				V
14+45	0.2007	0.33	Q	V				20+40	0.2525	0.04	Q				V
14+50	0.2029	0.33	Q	V				20+45	0.2528	0.04	Q				V
14+55	0.2052	0.32	Q	V				20+50	0.2530	0.04	Q				V
15+ 0	0.2074	0.32	Q	V				20+55	0.2533	0.03	Q				V
15+ 5	0.2096	0.32	Q	V				21+ 0	0.2535	0.03	Q				V
15+10	0.2117	0.31	Q	V				21+ 5	0.2537	0.03	Q				V
15+15	0.2139	0.31	Q	V				21+10	0.2539	0.03	Q				V
15+20	0.2160	0.31	Q	V				21+15	0.2541	0.03	Q				V
15+25	0.2181	0.30	Q	V				21+20	0.2544	0.04	Q				V
15+30	0.2201	0.30	Q	V				21+25	0.2546	0.03	Q				V
15+35	0.2221	0.29	Q	V				21+30	0.2548	0.03	Q				V
15+40	0.2240	0.28	Q	V				21+35	0.2550	0.03	Q				V
15+45	0.2258	0.26	Q	V				21+40	0.2552	0.03	Q				V
15+50	0.2276	0.25	Q	V				21+45	0.2554	0.03	Q				V
15+55	0.2293	0.25	Q	V				21+50	0.2557	0.03	Q				V
16+ 0	0.2310	0.25	Q	V				21+55	0.2559	0.03	Q				V
16+ 5	0.2327	0.23	Q	V				22+ 0	0.2561	0.03	Q				V
16+10	0.2339	0.18	Q	V				22+ 5	0.2563	0.03	Q				V
16+15	0.2348	0.13	Q	V				22+10	0.2565	0.03	Q				V
16+20	0.2355	0.10	Q	V				22+15	0.2568	0.03	Q				V
16+25	0.2361	0.09	Q	V				22+20	0.2570	0.03	Q				V
16+30	0.2366	0.08	Q	V				22+25	0.2572	0.03	Q				V
16+35	0.2371	0.07	Q	V				22+30	0.2574	0.03	Q				V
16+40	0.2375	0.06	Q	V				22+35	0.2576	0.03	Q				V
16+45	0.2379	0.05	Q	V				22+40	0.2578	0.03	Q				V
16+50	0.2382	0.05	Q	V				22+45	0.2580	0.03	Q				V
16+55	0.2386	0.05	Q	V				22+50	0.2581	0.03	Q				V
17+ 0	0.2389	0.04	Q	V				22+55	0.2583	0.03	Q				V
17+ 5	0.2392	0.04	Q	V				23+ 0	0.2585	0.03	Q				V
17+10	0.2395	0.05	Q	V				23+ 5	0.2587	0.03	Q				V
17+15	0.2399	0.06	Q	V				23+10	0.2589	0.03	Q				V
17+20	0.2403	0.06	Q	V				23+15	0.2590	0.03	Q				V
17+25	0.2407	0.06	Q	V				23+20	0.2592	0.03	Q				V
17+30	0.2411	0.06	Q	V				23+25	0.2594	0.03	Q				V
17+35	0.2415	0.06	Q	V				23+30	0.2596	0.03	Q				V
17+40	0.2419	0.06	Q	V				23+35	0.2597	0.03	Q				V
17+45	0.2424	0.06	Q	V				23+40	0.2599	0.03	Q				V
17+50	0.2428	0.06	Q	V				23+45	0.2601	0.03	Q				V

23+50	0.2603	0.03	Q				V
23+55	0.2604	0.03	Q				V
24+ 0	0.2606	0.03	Q				V
24+ 5	0.2608	0.02	Q				V
24+10	0.2609	0.02	Q				V
24+15	0.2609	0.01	Q				V
24+20	0.2610	0.01	Q				V
24+25	0.2610	0.00	Q				V
24+30	0.2610	0.00	Q				V
24+35	0.2611	0.00	Q				V
24+40	0.2611	0.00	Q				V
24+45	0.2611	0.00	Q				V
24+50	0.2611	0.00	Q				V
24+55	0.2611	0.00	Q				V
25+ 0	0.2611	0.00	Q				V
25+ 5	0.2611	0.00	Q				V
25+10	0.2611	0.00	Q				V
25+15	0.2611	0.00	Q				V

2-Year, 24-Hour Storm Duration Post-Project Condition Unit
Hydrograph Calculations

Unit Hydrograph Analysis

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2014, Version 9.0
Study date 09/12/18 File: ARAPOST242.out

Riverside County Synthetic Unit Hydrology Method
RCFC & WCD Manual date - April 1978

Program License Serial Number 6279

English (in-lb) Input Units Used
English Rainfall Data (Inches) Input Values Used

English Units used in output format

250.02.16

UNIT HYDROGRAPH FOR AREA A
POST-PROJECT CONDITION
FN: ARAPOST

Drainage Area = 9.60(Ac.) = 0.015 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 9.60(Ac.) = 0.015 Sq. Mi.
Length along longest watercourse = 3338.00(Ft.)
Length along longest watercourse measured to centroid = 1232.00(Ft.)
Length along longest watercourse = 0.632 Mi.
Length along longest watercourse measured to centroid = 0.233 Mi.
Difference in elevation = 34.70(Ft.)
Slope along watercourse = 54.8880 Ft./Mi.
Average Manning's 'N' = 0.015
Lag time = 0.081 Hr.
Lag time = 4.88 Min.
25% of lag time = 1.22 Min.
40% of lag time = 1.95 Min.
Unit time = 5.00 Min.
Duration of storm = 24 Hour(s)
User Entered Base Flow = 0.00(CFS)

2 YEAR Area rainfall data:

Area(Ac.) [1]	Rainfall(In) [2]	Weighting[1*2]
9.60	1.60	15.36

100 YEAR Area rainfall data:

Area(Ac.) [1]	Rainfall(In) [2]	Weighting[1*2]
9.60	4.10	39.36

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 1.600(In)
Area Averaged 100-Year Rainfall = 4.100(In)

Point rain (area averaged) = 1.600(In)
Areal adjustment factor = 100.00 %
Adjusted average point rain = 1.600(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
9.600	55.50	0.645
Total Area Entered = 9.60(Ac.)		

RI	RI	Infil. Rate	Impervious	Adj. Infil. Rate	Area%	F
AMC2	AMC-1	(In/Hr)	(Dec.%)	(In/Hr)	(Dec.)	(In/Hr)
55.5	35.5	0.711	0.645	0.298	1.000	0.298
Sum (F) =						0.298

Area averaged mean soil loss (F) (In/Hr) = 0.298
Minimum soil loss rate ((In/Hr)) = 0.149
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.384

Unit Hydrograph VALLEY S-Curve

Unit Hydrograph Data

Unit time period (hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	102.533	19.977
2	0.167	205.065	48.572
3	0.250	307.598	15.265
4	0.333	410.130	6.930
5	0.417	512.663	3.876
6	0.500	615.195	2.499
7	0.583	717.728	1.522
8	0.667	820.260	1.359
Sum = 100.000			Sum= 9.675

The following loss rate calculations reflect use of the minimum calculated loss rate subtracted from the Storm Rain to produce the maximum Effective Rain value

Unit Time (Hr.)	Pattern Percent	Storm Rain (In/Hr)	Loss rate(In./Hr) Max | Low	Effective (In/Hr)
1	0.08	0.07	(0.528)	0.005
2	0.17	0.07	(0.526)	0.005
3	0.25	0.07	(0.524)	0.005
4	0.33	0.10	(0.522)	0.007
5	0.42	0.10	(0.520)	0.007
6	0.50	0.10	(0.518)	0.007
7	0.58	0.10	(0.516)	0.007
8	0.67	0.10	(0.514)	0.007
9	0.75	0.10	(0.512)	0.007
10	0.83	0.13	(0.510)	0.010
11	0.92	0.13	(0.508)	0.010
12	1.00	0.13	(0.506)	0.010
13	1.08	0.10	(0.504)	0.007
14	1.17	0.10	(0.502)	0.007
15	1.25	0.10	(0.500)	0.007
16	1.33	0.10	(0.498)	0.007
17	1.42	0.10	(0.496)	0.007
18	1.50	0.10	(0.494)	0.007
19	1.58	0.10	(0.492)	0.007
20	1.67	0.10	(0.490)	0.007
21	1.75	0.10	(0.488)	0.007
22	1.83	0.13	(0.486)	0.010
23	1.92	0.13	(0.484)	0.010
24	2.00	0.13	(0.482)	0.010
25	2.08	0.13	(0.480)	0.010
26	2.17	0.13	(0.478)	0.010
27	2.25	0.13	(0.477)	0.010
28	2.33	0.13	(0.475)	0.010
29	2.42	0.13	(0.473)	0.010
30	2.50	0.13	(0.471)	0.010
31	2.58	0.17	(0.469)	0.012
32	2.67	0.17	(0.467)	0.012
33	2.75	0.17	(0.465)	0.012
34	2.83	0.17	(0.463)	0.012

35	2.92	0.17	0.032	(0.461)	0.012	0.020
36	3.00	0.17	0.032	(0.459)	0.012	0.020
37	3.08	0.17	0.032	(0.457)	0.012	0.020
38	3.17	0.17	0.032	(0.455)	0.012	0.020
39	3.25	0.17	0.032	(0.454)	0.012	0.020
40	3.33	0.17	0.032	(0.452)	0.012	0.020
41	3.42	0.17	0.032	(0.450)	0.012	0.020
42	3.50	0.17	0.032	(0.448)	0.012	0.020
43	3.58	0.17	0.032	(0.446)	0.012	0.020
44	3.67	0.17	0.032	(0.444)	0.012	0.020
45	3.75	0.17	0.032	(0.442)	0.012	0.020
46	3.83	0.20	0.038	(0.440)	0.015	0.024
47	3.92	0.20	0.038	(0.439)	0.015	0.024
48	4.00	0.20	0.038	(0.437)	0.015	0.024
49	4.08	0.20	0.038	(0.435)	0.015	0.024
50	4.17	0.20	0.038	(0.433)	0.015	0.024
51	4.25	0.20	0.038	(0.431)	0.015	0.024
52	4.33	0.23	0.045	(0.429)	0.017	0.028
53	4.42	0.23	0.045	(0.427)	0.017	0.028
54	4.50	0.23	0.045	(0.426)	0.017	0.028
55	4.58	0.23	0.045	(0.424)	0.017	0.028
56	4.67	0.23	0.045	(0.422)	0.017	0.028
57	4.75	0.23	0.045	(0.420)	0.017	0.028
58	4.83	0.27	0.051	(0.418)	0.020	0.032
59	4.92	0.27	0.051	(0.417)	0.020	0.032
60	5.00	0.27	0.051	(0.415)	0.020	0.032
61	5.08	0.20	0.038	(0.413)	0.015	0.024
62	5.17	0.20	0.038	(0.411)	0.015	0.024
63	5.25	0.20	0.038	(0.409)	0.015	0.024
64	5.33	0.23	0.045	(0.408)	0.017	0.028
65	5.42	0.23	0.045	(0.406)	0.017	0.028
66	5.50	0.23	0.045	(0.404)	0.017	0.028
67	5.58	0.27	0.051	(0.402)	0.020	0.032
68	5.67	0.27	0.051	(0.400)	0.020	0.032
69	5.75	0.27	0.051	(0.399)	0.020	0.032
70	5.83	0.27	0.051	(0.397)	0.020	0.032
71	5.92	0.27	0.051	(0.395)	0.020	0.032
72	6.00	0.27	0.051	(0.393)	0.020	0.032
73	6.08	0.30	0.058	(0.392)	0.022	0.035
74	6.17	0.30	0.058	(0.390)	0.022	0.035
75	6.25	0.30	0.058	(0.388)	0.022	0.035
76	6.33	0.30	0.058	(0.386)	0.022	0.035
77	6.42	0.30	0.058	(0.385)	0.022	0.035
78	6.50	0.30	0.058	(0.383)	0.022	0.035
79	6.58	0.33	0.064	(0.381)	0.025	0.039
80	6.67	0.33	0.064	(0.380)	0.025	0.039
81	6.75	0.33	0.064	(0.378)	0.025	0.039
82	6.83	0.33	0.064	(0.376)	0.025	0.039
83	6.92	0.33	0.064	(0.374)	0.025	0.039
84	7.00	0.33	0.064	(0.373)	0.025	0.039
85	7.08	0.33	0.064	(0.371)	0.025	0.039
86	7.17	0.33	0.064	(0.369)	0.025	0.039
87	7.25	0.33	0.064	(0.368)	0.025	0.039
88	7.33	0.37	0.070	(0.366)	0.027	0.043
89	7.42	0.37	0.070	(0.364)	0.027	0.043
90	7.50	0.37	0.070	(0.363)	0.027	0.043
91	7.58	0.40	0.077	(0.361)	0.029	0.047
92	7.67	0.40	0.077	(0.359)	0.029	0.047
93	7.75	0.40	0.077	(0.358)	0.029	0.047
94	7.83	0.43	0.083	(0.356)	0.032	0.051
95	7.92	0.43	0.083	(0.354)	0.032	0.051
96	8.00	0.43	0.083	(0.353)	0.032	0.051
97	8.08	0.50	0.096	(0.351)	0.037	0.059
98	8.17	0.50	0.096	(0.349)	0.037	0.059
99	8.25	0.50	0.096	(0.348)	0.037	0.059
100	8.33	0.50	0.096	(0.346)	0.037	0.059
101	8.42	0.50	0.096	(0.345)	0.037	0.059
102	8.50	0.50	0.096	(0.343)	0.037	0.059
103	8.58	0.53	0.102	(0.341)	0.039	0.063
104	8.67	0.53	0.102	(0.340)	0.039	0.063
105	8.75	0.53	0.102	(0.338)	0.039	0.063

106	8.83	0.57	0.109	(0.337)	0.042	0.067
107	8.92	0.57	0.109	(0.335)	0.042	0.067
108	9.00	0.57	0.109	(0.333)	0.042	0.067
109	9.08	0.63	0.122	(0.332)	0.047	0.075
110	9.17	0.63	0.122	(0.330)	0.047	0.075
111	9.25	0.63	0.122	(0.329)	0.047	0.075
112	9.33	0.67	0.128	(0.327)	0.049	0.079
113	9.42	0.67	0.128	(0.326)	0.049	0.079
114	9.50	0.67	0.128	(0.324)	0.049	0.079
115	9.58	0.70	0.134	(0.322)	0.052	0.083
116	9.67	0.70	0.134	(0.321)	0.052	0.083
117	9.75	0.70	0.134	(0.319)	0.052	0.083
118	9.83	0.73	0.141	(0.318)	0.054	0.087
119	9.92	0.73	0.141	(0.316)	0.054	0.087
120	10.00	0.73	0.141	(0.315)	0.054	0.087
121	10.08	0.50	0.096	(0.313)	0.037	0.059
122	10.17	0.50	0.096	(0.312)	0.037	0.059
123	10.25	0.50	0.096	(0.310)	0.037	0.059
124	10.33	0.50	0.096	(0.309)	0.037	0.059
125	10.42	0.50	0.096	(0.307)	0.037	0.059
126	10.50	0.50	0.096	(0.306)	0.037	0.059
127	10.58	0.67	0.128	(0.304)	0.049	0.079
128	10.67	0.67	0.128	(0.303)	0.049	0.079
129	10.75	0.67	0.128	(0.301)	0.049	0.079
130	10.83	0.67	0.128	(0.300)	0.049	0.079
131	10.92	0.67	0.128	(0.298)	0.049	0.079
132	11.00	0.67	0.128	(0.297)	0.049	0.079
133	11.08	0.63	0.122	(0.295)	0.047	0.075
134	11.17	0.63	0.122	(0.294)	0.047	0.075
135	11.25	0.63	0.122	(0.292)	0.047	0.075
136	11.33	0.63	0.122	(0.291)	0.047	0.075
137	11.42	0.63	0.122	(0.290)	0.047	0.075
138	11.50	0.63	0.122	(0.288)	0.047	0.075
139	11.58	0.57	0.109	(0.287)	0.042	0.067
140	11.67	0.57	0.109	(0.285)	0.042	0.067
141	11.75	0.57	0.109	(0.284)	0.042	0.067
142	11.83	0.60	0.115	(0.282)	0.044	0.071
143	11.92	0.60	0.115	(0.281)	0.044	0.071
144	12.00	0.60	0.115	(0.280)	0.044	0.071
145	12.08	0.83	0.160	(0.278)	0.061	0.099
146	12.17	0.83	0.160	(0.277)	0.061	0.099
147	12.25	0.83	0.160	(0.275)	0.061	0.099
148	12.33	0.87	0.166	(0.274)	0.064	0.103
149	12.42	0.87	0.166	(0.273)	0.064	0.103
150	12.50	0.87	0.166	(0.271)	0.064	0.103
151	12.58	0.93	0.179	(0.270)	0.069	0.110
152	12.67	0.93	0.179	(0.269)	0.069	0.110
153	12.75	0.93	0.179	(0.267)	0.069	0.110
154	12.83	0.97	0.186	(0.266)	0.071	0.114
155	12.92	0.97	0.186	(0.265)	0.071	0.114
156	13.00	0.97	0.186	(0.263)	0.071	0.114
157	13.08	1.13	0.218	(0.262)	0.084	0.134
158	13.17	1.13	0.218	(0.261)	0.084	0.134
159	13.25	1.13	0.218	(0.259)	0.084	0.134
160	13.33	1.13	0.218	(0.258)	0.084	0.134
161	13.42	1.13	0.218	(0.257)	0.084	0.134
162	13.50	1.13	0.218	(0.255)	0.084	0.134
163	13.58	0.77	0.147	(0.254)	0.057	0.091
164	13.67	0.77	0.147	(0.253)	0.057	0.091
165	13.75	0.77	0.147	(0.251)	0.057	0.091
166	13.83	0.77	0.147	(0.250)	0.057	0.091
167	13.92	0.77	0.147	(0.249)	0.057	0.091
168	14.00	0.77	0.147	(0.248)	0.057	0.091
169	14.08	0.90	0.173	(0.246)	0.066	0.106
170	14.17	0.90	0.173	(0.245)	0.066	0.106
171	14.25	0.90	0.173	(0.244)	0.066	0.106
172	14.33	0.87	0.166	(0.243)	0.064	0.103
173	14.42	0.87	0.166	(0.241)	0.064	0.103
174	14.50	0.87	0.166	(0.240)	0.064	0.103
175	14.58	0.87	0.166	(0.239)	0.064	0.103
176	14.67	0.87	0.166	(0.238)	0.064	0.103

177	14.75	0.87	0.166	(0.236)	0.064	0.103
178	14.83	0.83	0.160	(0.235)	0.061	0.099
179	14.92	0.83	0.160	(0.234)	0.061	0.099
180	15.00	0.83	0.160	(0.233)	0.061	0.099
181	15.08	0.80	0.154	(0.232)	0.059	0.095
182	15.17	0.80	0.154	(0.230)	0.059	0.095
183	15.25	0.80	0.154	(0.229)	0.059	0.095
184	15.33	0.77	0.147	(0.228)	0.057	0.091
185	15.42	0.77	0.147	(0.227)	0.057	0.091
186	15.50	0.77	0.147	(0.226)	0.057	0.091
187	15.58	0.63	0.122	(0.225)	0.047	0.075
188	15.67	0.63	0.122	(0.223)	0.047	0.075
189	15.75	0.63	0.122	(0.222)	0.047	0.075
190	15.83	0.63	0.122	(0.221)	0.047	0.075
191	15.92	0.63	0.122	(0.220)	0.047	0.075
192	16.00	0.63	0.122	(0.219)	0.047	0.075
193	16.08	0.13	0.026	(0.218)	0.010	0.016
194	16.17	0.13	0.026	(0.217)	0.010	0.016
195	16.25	0.13	0.026	(0.216)	0.010	0.016
196	16.33	0.13	0.026	(0.214)	0.010	0.016
197	16.42	0.13	0.026	(0.213)	0.010	0.016
198	16.50	0.13	0.026	(0.212)	0.010	0.016
199	16.58	0.10	0.019	(0.211)	0.007	0.012
200	16.67	0.10	0.019	(0.210)	0.007	0.012
201	16.75	0.10	0.019	(0.209)	0.007	0.012
202	16.83	0.10	0.019	(0.208)	0.007	0.012
203	16.92	0.10	0.019	(0.207)	0.007	0.012
204	17.00	0.10	0.019	(0.206)	0.007	0.012
205	17.08	0.17	0.032	(0.205)	0.012	0.020
206	17.17	0.17	0.032	(0.204)	0.012	0.020
207	17.25	0.17	0.032	(0.203)	0.012	0.020
208	17.33	0.17	0.032	(0.202)	0.012	0.020
209	17.42	0.17	0.032	(0.201)	0.012	0.020
210	17.50	0.17	0.032	(0.200)	0.012	0.020
211	17.58	0.17	0.032	(0.199)	0.012	0.020
212	17.67	0.17	0.032	(0.198)	0.012	0.020
213	17.75	0.17	0.032	(0.197)	0.012	0.020
214	17.83	0.13	0.026	(0.196)	0.010	0.016
215	17.92	0.13	0.026	(0.195)	0.010	0.016
216	18.00	0.13	0.026	(0.194)	0.010	0.016
217	18.08	0.13	0.026	(0.193)	0.010	0.016
218	18.17	0.13	0.026	(0.192)	0.010	0.016
219	18.25	0.13	0.026	(0.191)	0.010	0.016
220	18.33	0.13	0.026	(0.190)	0.010	0.016
221	18.42	0.13	0.026	(0.189)	0.010	0.016
222	18.50	0.13	0.026	(0.188)	0.010	0.016
223	18.58	0.10	0.019	(0.187)	0.007	0.012
224	18.67	0.10	0.019	(0.186)	0.007	0.012
225	18.75	0.10	0.019	(0.186)	0.007	0.012
226	18.83	0.07	0.013	(0.185)	0.005	0.008
227	18.92	0.07	0.013	(0.184)	0.005	0.008
228	19.00	0.07	0.013	(0.183)	0.005	0.008
229	19.08	0.10	0.019	(0.182)	0.007	0.012
230	19.17	0.10	0.019	(0.181)	0.007	0.012
231	19.25	0.10	0.019	(0.180)	0.007	0.012
232	19.33	0.13	0.026	(0.179)	0.010	0.016
233	19.42	0.13	0.026	(0.179)	0.010	0.016
234	19.50	0.13	0.026	(0.178)	0.010	0.016
235	19.58	0.10	0.019	(0.177)	0.007	0.012
236	19.67	0.10	0.019	(0.176)	0.007	0.012
237	19.75	0.10	0.019	(0.175)	0.007	0.012
238	19.83	0.07	0.013	(0.175)	0.005	0.008
239	19.92	0.07	0.013	(0.174)	0.005	0.008
240	20.00	0.07	0.013	(0.173)	0.005	0.008
241	20.08	0.10	0.019	(0.172)	0.007	0.012
242	20.17	0.10	0.019	(0.172)	0.007	0.012
243	20.25	0.10	0.019	(0.171)	0.007	0.012
244	20.33	0.10	0.019	(0.170)	0.007	0.012
245	20.42	0.10	0.019	(0.169)	0.007	0.012
246	20.50	0.10	0.019	(0.169)	0.007	0.012
247	20.58	0.10	0.019	(0.168)	0.007	0.012

248	20.67	0.10	0.019	(0.167)	0.007	0.012
249	20.75	0.10	0.019	(0.167)	0.007	0.012
250	20.83	0.07	0.013	(0.166)	0.005	0.008
251	20.92	0.07	0.013	(0.165)	0.005	0.008
252	21.00	0.07	0.013	(0.165)	0.005	0.008
253	21.08	0.10	0.019	(0.164)	0.007	0.012
254	21.17	0.10	0.019	(0.163)	0.007	0.012
255	21.25	0.10	0.019	(0.163)	0.007	0.012
256	21.33	0.07	0.013	(0.162)	0.005	0.008
257	21.42	0.07	0.013	(0.161)	0.005	0.008
258	21.50	0.07	0.013	(0.161)	0.005	0.008
259	21.58	0.10	0.019	(0.160)	0.007	0.012
260	21.67	0.10	0.019	(0.160)	0.007	0.012
261	21.75	0.10	0.019	(0.159)	0.007	0.012
262	21.83	0.07	0.013	(0.158)	0.005	0.008
263	21.92	0.07	0.013	(0.158)	0.005	0.008
264	22.00	0.07	0.013	(0.157)	0.005	0.008
265	22.08	0.10	0.019	(0.157)	0.007	0.012
266	22.17	0.10	0.019	(0.156)	0.007	0.012
267	22.25	0.10	0.019	(0.156)	0.007	0.012
268	22.33	0.07	0.013	(0.155)	0.005	0.008
269	22.42	0.07	0.013	(0.155)	0.005	0.008
270	22.50	0.07	0.013	(0.154)	0.005	0.008
271	22.58	0.07	0.013	(0.154)	0.005	0.008
272	22.67	0.07	0.013	(0.154)	0.005	0.008
273	22.75	0.07	0.013	(0.153)	0.005	0.008
274	22.83	0.07	0.013	(0.153)	0.005	0.008
275	22.92	0.07	0.013	(0.152)	0.005	0.008
276	23.00	0.07	0.013	(0.152)	0.005	0.008
277	23.08	0.07	0.013	(0.152)	0.005	0.008
278	23.17	0.07	0.013	(0.151)	0.005	0.008
279	23.25	0.07	0.013	(0.151)	0.005	0.008
280	23.33	0.07	0.013	(0.151)	0.005	0.008
281	23.42	0.07	0.013	(0.150)	0.005	0.008
282	23.50	0.07	0.013	(0.150)	0.005	0.008
283	23.58	0.07	0.013	(0.150)	0.005	0.008
284	23.67	0.07	0.013	(0.150)	0.005	0.008
285	23.75	0.07	0.013	(0.149)	0.005	0.008
286	23.83	0.07	0.013	(0.149)	0.005	0.008
287	23.92	0.07	0.013	(0.149)	0.005	0.008
288	24.00	0.07	0.013	(0.149)	0.005	0.008

(Loss Rate Not Used)
Sum = 100.0 Sum = 11.8

Flood volume = Effective rainfall 0.99(In)
times area 9.6(Ac.)/[(In)/(Ft.)) = 0.8(Ac.Ft)
Total soil loss = 0.61(In)
Total soil loss = 0.492(Ac.Ft)
Total rainfall = 1.60(In)
Flood volume = 34345.5 Cubic Feet
Total soil loss = 21410.2 Cubic Feet

Peak flow rate of this hydrograph = 1.292(CFS)

24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	2.5	5.0	7.5	10.0
0+ 5	0.0001	0.02 Q					
0+10	0.0005	0.05 Q					
0+15	0.0009	0.06 Q					
0+20	0.0014	0.08 Q					
0+25	0.0021	0.10 Q					
0+30	0.0028	0.11 Q					
0+35	0.0036	0.11 Q					
0+40	0.0044	0.11 Q					
0+45	0.0052	0.11 Q					

0+50	0.0060	0.12	Q
0+55	0.0070	0.14	Q
1+ 0	0.0080	0.15	Q
1+ 5	0.0089	0.14	Q
1+10	0.0098	0.12	Q
1+15	0.0106	0.12	Q
1+20	0.0114	0.12	Q
1+25	0.0122	0.12	Q
1+30	0.0130	0.12	Q
1+35	0.0138	0.12	Q
1+40	0.0146	0.11	Q
1+45	0.0154	0.11	Q
1+50	0.0162	0.12	Q
1+55	0.0172	0.14	Q
2+ 0	0.0182	0.15	Q
2+ 5	0.0192	0.15	Q
2+10	0.0203	0.15	QV
2+15	0.0213	0.15	QV
2+20	0.0224	0.15	QV
2+25	0.0234	0.15	QV
2+30	0.0245	0.15	QV
2+35	0.0256	0.16	QV
2+40	0.0268	0.18	QV
2+45	0.0281	0.18	QV
2+50	0.0294	0.19	QV
2+55	0.0307	0.19	QV
3+ 0	0.0320	0.19	QV
3+ 5	0.0333	0.19	QV
3+10	0.0346	0.19	QV
3+15	0.0359	0.19	QV
3+20	0.0372	0.19	QV
3+25	0.0385	0.19	QV
3+30	0.0399	0.19	Q V
3+35	0.0412	0.19	Q V
3+40	0.0425	0.19	Q V
3+45	0.0438	0.19	Q V
3+50	0.0452	0.20	Q V
3+55	0.0467	0.22	Q V
4+ 0	0.0482	0.22	Q V
4+ 5	0.0498	0.23	Q V
4+10	0.0513	0.23	Q V
4+15	0.0529	0.23	Q V
4+20	0.0545	0.24	Q V
4+25	0.0563	0.26	QV
4+30	0.0581	0.26	QV
4+35	0.0599	0.26	Q V
4+40	0.0617	0.27	Q V
4+45	0.0635	0.27	Q V
4+50	0.0654	0.27	Q V
4+55	0.0674	0.29	Q V
5+ 0	0.0695	0.30	Q V
5+ 5	0.0715	0.29	Q V
5+10	0.0732	0.25	Q V
5+15	0.0749	0.24	Q V
5+20	0.0765	0.24	Q V
5+25	0.0783	0.26	Q V
5+30	0.0801	0.26	Q V
5+35	0.0820	0.27	Q V
5+40	0.0840	0.29	Q V
5+45	0.0861	0.30	Q V
5+50	0.0881	0.30	Q V
5+55	0.0902	0.30	Q V
6+ 0	0.0923	0.30	Q V
6+ 5	0.0945	0.31	Q V
6+10	0.0968	0.33	Q V
6+15	0.0991	0.34	Q V
6+20	0.1014	0.34	Q V
6+25	0.1038	0.34	Q V
6+30	0.1061	0.34	Q V
6+35	0.1085	0.35	Q V
6+40	0.1111	0.37	Q V

6+45	0.1137	0.38	Q V
6+50	0.1163	0.38	Q V
6+55	0.1189	0.38	Q V
7+ 0	0.1215	0.38	Q V
7+ 5	0.1241	0.38	Q V
7+10	0.1268	0.38	Q V
7+15	0.1294	0.38	Q V
7+20	0.1321	0.39	Q V
7+25	0.1349	0.41	Q V
7+30	0.1377	0.41	Q V
7+35	0.1407	0.42	Q V
7+40	0.1437	0.44	Q V
7+45	0.1468	0.45	Q V
7+50	0.1500	0.46	Q V
7+55	0.1533	0.48	Q V
8+ 0	0.1567	0.49	Q V
8+ 5	0.1602	0.51	Q V
8+10	0.1639	0.55	Q V
8+15	0.1678	0.56	Q V
8+20	0.1717	0.56	Q V
8+25	0.1756	0.57	Q V
8+30	0.1795	0.57	Q V
8+35	0.1835	0.58	Q V
8+40	0.1876	0.60	Q V
8+45	0.1918	0.60	Q V
8+50	0.1960	0.61	Q V
8+55	0.2004	0.63	Q V
9+ 0	0.2048	0.64	Q V
9+ 5	0.2094	0.66	Q V
9+10	0.2142	0.70	Q V
9+15	0.2191	0.71	Q V
9+20	0.2241	0.73	Q V
9+25	0.2292	0.75	Q V
9+30	0.2344	0.75	Q V
9+35	0.2397	0.77	Q V
9+40	0.2451	0.79	Q V
9+45	0.2506	0.79	Q V
9+50	0.2561	0.80	Q V
9+55	0.2618	0.83	Q V
10+ 0	0.2675	0.83	Q V
10+ 5	0.2729	0.78	Q V
10+10	0.2774	0.65	Q V
10+15	0.2817	0.61	Q V
10+20	0.2858	0.60	Q V
10+25	0.2898	0.59	Q V
10+30	0.2938	0.58	Q V
10+35	0.2980	0.61	Q V
10+40	0.3029	0.70	Q V
10+45	0.3079	0.73	Q V
10+50	0.3131	0.75	Q V
10+55	0.3183	0.75	Q V
11+ 0	0.3235	0.76	Q V
11+ 5	0.3287	0.75	Q V
11+10	0.3337	0.74	Q V
11+15	0.3388	0.73	Q V
11+20	0.3438	0.73	Q V
11+25	0.3488	0.73	Q V
11+30	0.3538	0.73	Q V
11+35	0.3587	0.71	Q V
11+40	0.3633	0.67	Q V
11+45	0.3679	0.66	Q V
11+50	0.3724	0.66	Q V
11+55	0.3771	0.68	Q V
12+ 0	0.3818	0.68	Q V
12+ 5	0.3869	0.74	Q V
12+10	0.3929	0.87	Q V
12+15	0.3991	0.91	Q V
12+20	0.4056	0.94	Q V
12+25	0.4122	0.97	Q V
12+30	0.4190	0.98	Q V
12+35	0.4259	1.00	Q V

12+40	0.4331	1.04	Q	V			18+35	0.7446	0.15	Q	V
12+45	0.4403	1.06	Q	V			18+40	0.7454	0.13	Q	V
12+50	0.4477	1.07	Q	V			18+45	0.7463	0.12	Q	V
12+55	0.4552	1.09	Q	V			18+50	0.7470	0.11	Q	V
13+ 0	0.4628	1.10	Q	V			18+55	0.7476	0.09	Q	V
13+ 5	0.4706	1.14	Q	V			19+ 0	0.7482	0.08	Q	V
13+10	0.4791	1.24	Q	V			19+ 5	0.7488	0.09	Q	V
13+15	0.4878	1.27	Q	V			19+10	0.7495	0.10	Q	V
13+20	0.4966	1.28	Q	V			19+15	0.7503	0.11	Q	V
13+25	0.5055	1.29	Q	V			19+20	0.7511	0.12	Q	V
13+30	0.5144	1.29	Q	V			19+25	0.7521	0.14	Q	V
13+35	0.5227	1.21	Q	V			19+30	0.7531	0.15	Q	V
13+40	0.5297	1.01	Q	V			19+35	0.7540	0.14	Q	V
13+45	0.5362	0.95	Q	V			19+40	0.7549	0.12	Q	V
13+50	0.5425	0.92	Q	V			19+45	0.7557	0.12	Q	V
13+55	0.5487	0.90	Q	V			19+50	0.7565	0.11	Q	V
14+ 0	0.5549	0.89	Q	V			19+55	0.7571	0.09	Q	V
14+ 5	0.5611	0.91	Q	V			20+ 0	0.7577	0.08	Q	V
14+10	0.5679	0.98	Q	V			20+ 5	0.7583	0.09	Q	V
14+15	0.5748	1.01	Q	V			20+10	0.7590	0.10	Q	V
14+20	0.5818	1.01	Q	V			20+15	0.7598	0.11	Q	V
14+25	0.5886	1.00	Q	V			20+20	0.7605	0.11	Q	V
14+30	0.5955	0.99	Q	V			20+25	0.7613	0.11	Q	V
14+35	0.6023	0.99	Q	V			20+30	0.7621	0.11	Q	V
14+40	0.6092	0.99	Q	V			20+35	0.7629	0.11	Q	V
14+45	0.6160	0.99	Q	V			20+40	0.7637	0.11	Q	V
14+50	0.6228	0.99	Q	V			20+45	0.7644	0.11	Q	V
14+55	0.6295	0.97	Q	V			20+50	0.7652	0.11	Q	V
15+ 0	0.6361	0.96	Q	V			20+55	0.7658	0.09	Q	V
15+ 5	0.6426	0.95	Q	V			21+ 0	0.7664	0.08	Q	V
15+10	0.6490	0.93	Q	V			21+ 5	0.7670	0.09	Q	V
15+15	0.6554	0.92	Q	V			21+10	0.7677	0.10	Q	V
15+20	0.6617	0.91	Q	V			21+15	0.7684	0.11	Q	V
15+25	0.6678	0.89	Q	V			21+20	0.7691	0.10	Q	V
15+30	0.6739	0.88	Q	V			21+25	0.7697	0.09	Q	V
15+35	0.6798	0.85	Q	V			21+30	0.7703	0.08	Q	V
15+40	0.6851	0.78	Q	V			21+35	0.7709	0.09	Q	V
15+45	0.6903	0.75	Q	V			21+40	0.7716	0.10	Q	V
15+50	0.6954	0.74	Q	V			21+45	0.7724	0.11	Q	V
15+55	0.7004	0.73	Q	V			21+50	0.7731	0.10	Q	V
16+ 0	0.7054	0.73	Q	V			21+55	0.7737	0.09	Q	V
16+ 5	0.7097	0.61	Q	V			22+ 0	0.7742	0.08	Q	V
16+10	0.7120	0.33	Q	V			22+ 5	0.7748	0.09	Q	V
16+15	0.7136	0.25	Q	V			22+10	0.7756	0.10	Q	V
16+20	0.7151	0.21	Q	V			22+15	0.7763	0.11	Q	V
16+25	0.7163	0.18	Q	V			22+20	0.7770	0.10	Q	V
16+30	0.7175	0.17	Q	V			22+25	0.7776	0.09	Q	V
16+35	0.7185	0.15	Q	V			22+30	0.7782	0.08	Q	V
16+40	0.7194	0.13	Q	V			22+35	0.7787	0.08	Q	V
16+45	0.7202	0.12	Q	V			22+40	0.7793	0.08	Q	V
16+50	0.7211	0.12	Q	V			22+45	0.7798	0.08	Q	V
16+55	0.7219	0.12	Q	V			22+50	0.7803	0.08	Q	V
17+ 0	0.7227	0.12	Q	V			22+55	0.7809	0.08	Q	V
17+ 5	0.7235	0.13	Q	V			23+ 0	0.7814	0.08	Q	V
17+10	0.7247	0.17	Q	V			23+ 5	0.7819	0.08	Q	V
17+15	0.7259	0.18	Q	V			23+10	0.7824	0.08	Q	V
17+20	0.7272	0.18	Q	V			23+15	0.7830	0.08	Q	V
17+25	0.7285	0.19	Q	V			23+20	0.7835	0.08	Q	V
17+30	0.7298	0.19	Q	V			23+25	0.7840	0.08	Q	V
17+35	0.7311	0.19	Q	V			23+30	0.7845	0.08	Q	V
17+40	0.7324	0.19	Q	V			23+35	0.7851	0.08	Q	V
17+45	0.7337	0.19	Q	V			23+40	0.7856	0.08	Q	V
17+50	0.7350	0.18	Q	V			23+45	0.7861	0.08	Q	V
17+55	0.7361	0.16	Q	V			23+50	0.7866	0.08	Q	V
18+ 0	0.7372	0.16	Q	V			23+55	0.7872	0.08	Q	V
18+ 5	0.7383	0.16	Q	V			24+ 0	0.7877	0.08	Q	V
18+10	0.7393	0.15	Q	V			24+ 5	0.7881	0.06	Q	V
18+15	0.7404	0.15	Q	V			24+10	0.7883	0.02	Q	V
18+20	0.7415	0.15	Q	V			24+15	0.7884	0.01	Q	V
18+25	0.7425	0.15	Q	V			24+20	0.7884	0.01	Q	V
18+30	0.7436	0.15	Q	V			24+25	0.7884	0.00	Q	V

24+30	0.7885	0.00	Q	|	|	|	v|
24+35	0.7885	0.00	Q	|	|	|	v

Interim Basin Storage Volume Spreadsheet

EXTENDED DETENTION BASIN B

Contour Elevation	Contour Area (sf)	Contour Area (ac)	Contour Interval Volume (ac-ft)	Total Basin Volume (ac-ft)	Total Basin Volume (ft ³)
1513.00	25563.64	0.587		0.0000	
1.00			0.622		
1514.00	28619.92	0.657		0.6216	27077.40
2.00			0.693		
1515.00	31809.22	0.730		1.3149	57277.94
3.00			0.768		
1516.00	35131.55	0.807		2.0830	90734.57
4.00			0.846		
1517.00	38586.91	0.886		2.9288	127580.30
5.00			0.927		
1518.00	42175.30	0.968		3.8556	167948.11

Figure 4 – Unit Hydrograph Watershed Map

MR 56 COMMERCIAL SITE

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

EXISTING CONDITION SITE HYDROLOGY MAP

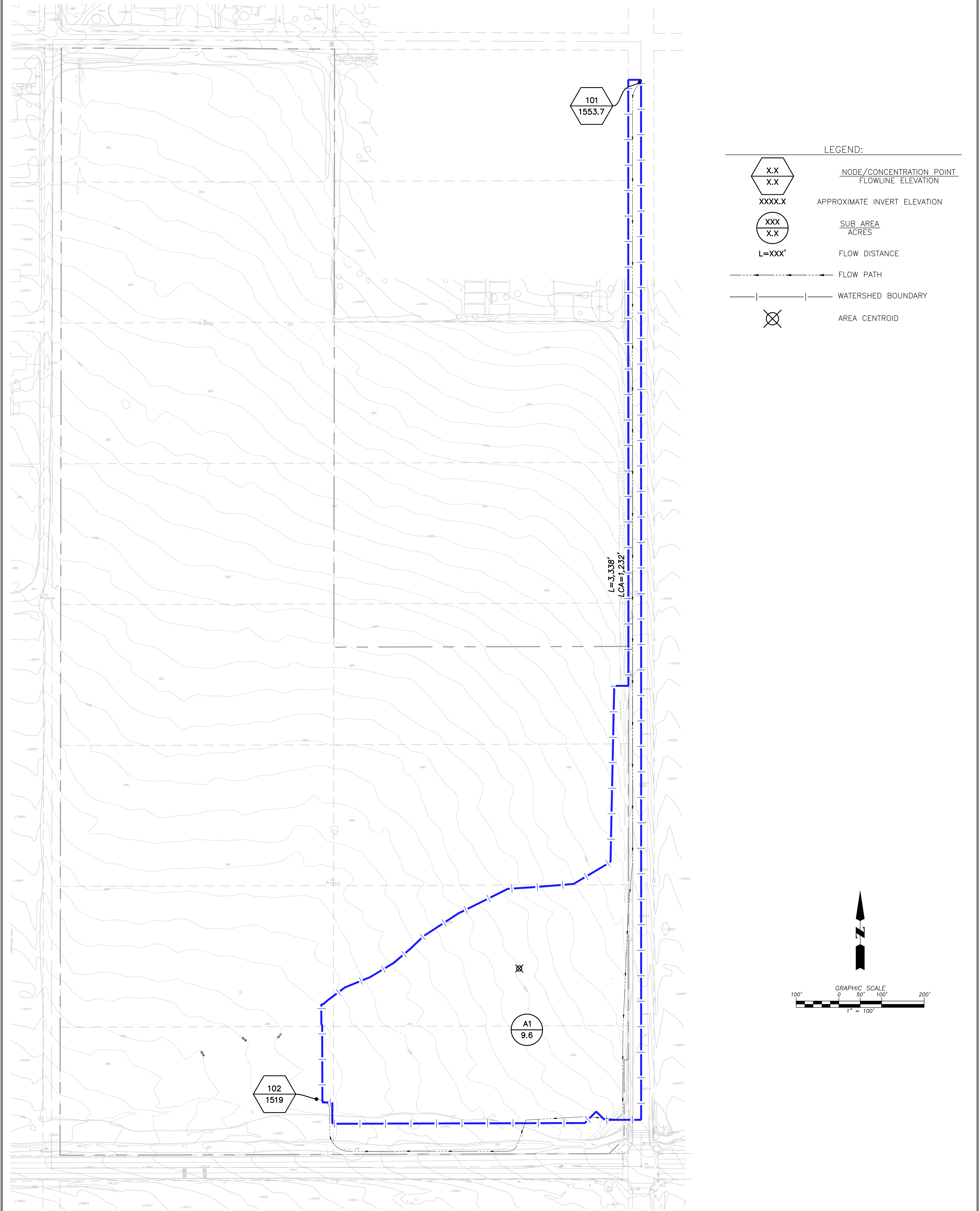


EXHIBIT "C"

MR 56 COMMERCIAL SITE

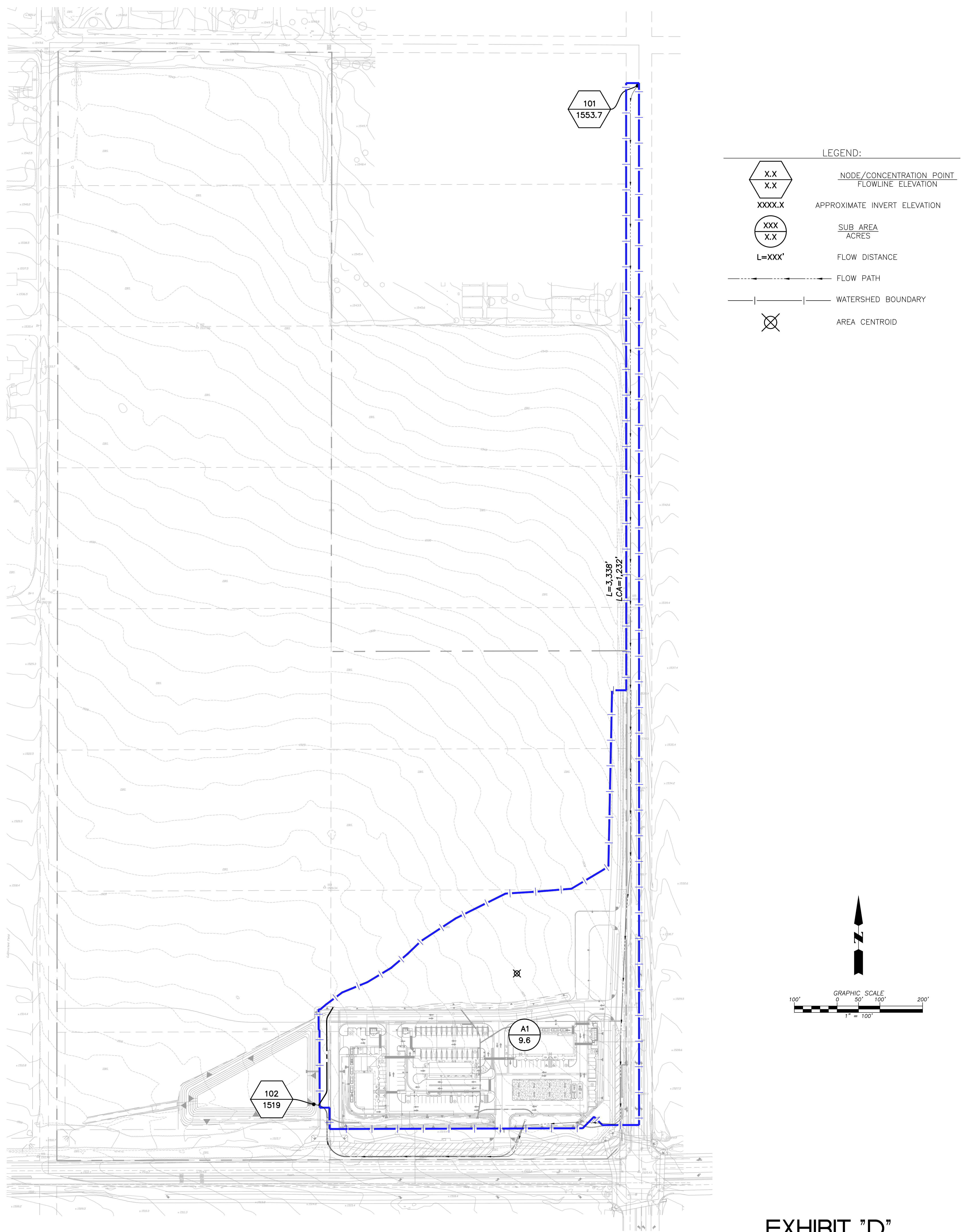
EXIST. UNIT HYDROGRAPH

HYDROLOGY MAP

MR 56 COMMERCIAL SITE

IN THE CITY OF MENIFEE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

POST-PROJECT UNIT HYDROGRAPH HYDROLOGY MAP



JLC

Engineering & Consulting, Inc.

41660 IVY STREET, SUITE A
MURRIETA, CA 92562
PH. 951.304.9552 FAX 951.304.3568

EXHIBIT "D"

MR 56 COMMERCIAL SITE

POST-PROJECT UNIT
HYDROGRAPH MAP

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section G of the WQMP Template):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your WQMP Exhibit.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in your WQMP. Use the format shown in Table G.1 on page 23 of this WQMP Template. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input checked="" type="checkbox"/> A. On-site storm drain inlets	<input checked="" type="checkbox"/> Locations of inlets.	<input checked="" type="checkbox"/> Mark all inlets with the words “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.	<input checked="" type="checkbox"/> Maintain and periodically repaint or replace inlet markings. <input checked="" type="checkbox"/> Provide stormwater pollution prevention information to new site owners, lessees, or operators. <input checked="" type="checkbox"/> See applicable operational BMPs in Fact Sheet SC-44, “Drainage System Maintenance,” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com <input checked="" type="checkbox"/> Include the following in lease agreements: “Tenant 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.”
<input checked="" type="checkbox"/> B. Interior floor drains and elevator shaft sump pumps		<input checked="" type="checkbox"/> State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.	<input checked="" type="checkbox"/> Inspect and maintain drains to prevent blockages and overflow.
<input type="checkbox"/> C. Interior parking garages		<input type="checkbox"/> State that parking garage floor drains will be plumbed to the sanitary sewer.	<input type="checkbox"/> Inspect and maintain drains to prevent blockages and overflow.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input checked="" type="checkbox"/> D1. Need for future indoor & structural pest control		<input checked="" type="checkbox"/> Note building design features that discourage entry of pests.	<input checked="" type="checkbox"/> Provide Integrated Pest Management information to owners, lessees, and operators.
<input checked="" type="checkbox"/> D2. Landscape/ Outdoor Pesticide Use	<input type="checkbox"/> Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. <input type="checkbox"/> Show self-retaining landscape areas, if any. <input checked="" type="checkbox"/> Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)	State that final landscape plans will accomplish all of the following. <input type="checkbox"/> Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. <input checked="" type="checkbox"/> Design landscaping 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. <input checked="" type="checkbox"/> Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. <input checked="" type="checkbox"/> Consider using pest-resistant plants, especially adjacent to hardscape. <input checked="" type="checkbox"/> To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	<input checked="" type="checkbox"/> Maintain landscaping using minimum or no pesticides. <input checked="" type="checkbox"/> See applicable operational BMPs in “What you should know for.....Landscape and Gardening” at http://rcflood.org/stormwater/Error! Hyperlink reference not valid. Provide IPM information to new owners, lessees and operators. <input checked="" type="checkbox"/>

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input type="checkbox"/> E. Pools, spas, ponds, decorative fountains, and other water features.	<input type="checkbox"/> Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)	<p>If the Co-Permittee requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.</p>	<input type="checkbox"/> See applicable operational BMPs in “Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain” at http://rcflood.org/stormwater/
<input checked="" type="checkbox"/> F. Food service	<input checked="" type="checkbox"/> For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment. <input type="checkbox"/> On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.	<input checked="" type="checkbox"/> Describe the location and features of the designated cleaning area. <input checked="" type="checkbox"/> Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.	<input checked="" type="checkbox"/> See the brochure, “The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries” at http://rcflood.org/stormwater/ Provide this brochure to new site owners, lessees, and operators.
<input checked="" type="checkbox"/> G. Refuse areas	<input checked="" type="checkbox"/> Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas. <input checked="" type="checkbox"/> If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area. <input type="checkbox"/> Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.	<input checked="" type="checkbox"/> State how site refuse will be handled and provide supporting detail to what is shown on plans. <input checked="" type="checkbox"/> State that signs will be posted on or near dumpsters with the words “Do not dump hazardous materials here” or similar.	<input checked="" type="checkbox"/> State how the following will be implemented: Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. 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, “Waste Handling and Disposal” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input type="checkbox"/> H. Industrial processes.	<input type="checkbox"/> Show process area.	<input type="checkbox"/> If industrial processes are to be located on site, state: “All process activities to be performed indoors. No processes to drain to exterior or to storm drain system.”	<input type="checkbox"/> See Fact Sheet SC-10, “Non-Stormwater Discharges” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com See the brochure “Industrial & Commercial Facilities Best Management Practices for: Industrial, Commercial Facilities” at http://rcflood.org/stormwater/

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input checked="" type="checkbox"/> I. Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)	<input checked="" type="checkbox"/> Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area. <input checked="" type="checkbox"/> Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults. <input checked="" type="checkbox"/> Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.	<input checked="" type="checkbox"/> Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains. Where appropriate, reference documentation of compliance with the requirements of Hazardous Materials Programs for: <ul style="list-style-type: none"> ▪ Hazardous Waste Generation ▪ Hazardous Materials Release Response and Inventory ▪ California Accidental Release (CalARP) ▪ Aboveground Storage Tank ▪ Uniform Fire Code Article 80 Section 103(b) & (c) 1991 ▪ Underground Storage Tank www.cchealth.org/groups/hazmat/	<input checked="" type="checkbox"/> See the Fact Sheets SC-31, “Outdoor Liquid Container Storage” and SC-33, “Outdoor Storage of Raw Materials ” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input type="checkbox"/> J. Vehicle and Equipment Cleaning	<input type="checkbox"/> Show on drawings as appropriate: (1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses. (2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use). (3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer. (4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.	<input type="checkbox"/> If a car wash area is not provided, describe any measures taken to discourage on-site car washing and explain how these will be enforced.	<p>Describe operational measures to implement the following (if applicable):</p> <input type="checkbox"/> Wastewater from vehicle and equipment washing operations shall not be discharged to the storm drain system. Refer to “Outdoor Cleaning Activities and Professional Mobile Service Providers” for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/ <input type="checkbox"/> Car dealerships and similar may rinse cars with water only.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input type="checkbox"/> K. Vehicle/Equipment Repair and Maintenance	<input type="checkbox"/> Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater. <input type="checkbox"/> Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas. <input type="checkbox"/> Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.	<input type="checkbox"/> State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area. <input type="checkbox"/> State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements. <input type="checkbox"/> State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.	<p>In the Stormwater Control Plan, note that all of the following restrictions apply to use the site:</p> <input type="checkbox"/> No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains. <input type="checkbox"/> No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately. <input type="checkbox"/> No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment. <p>Refer to "Automotive Maintenance & Car Care Best Management Practices for Auto Body Shops, Auto Repair Shops, Car Dealerships, Gas Stations and Fleet Service Operations". Brochure can be found at http://rcflood.org/stormwater/</p> <p>Refer to Outdoor Cleaning Activities and Professional Mobile Service Providers for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/</p>

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
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<input type="checkbox"/> L. Fuel Dispensing Areas	<input type="checkbox"/> Fueling areas ⁶ shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable. <input type="checkbox"/> Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area ¹ .] The canopy [or cover] shall not drain onto the fueling area.		<input type="checkbox"/> The property owner shall dry sweep the fueling area routinely. <input type="checkbox"/> See the Fact Sheet SD-30 , “Fueling Areas” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

⁶ The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input checked="" type="checkbox"/> M. Loading Docks	<input checked="" type="checkbox"/> Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer. <input checked="" type="checkbox"/> Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation. <input checked="" type="checkbox"/> Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.		<input checked="" type="checkbox"/> Move loaded and unloaded items indoors as soon as possible. <input checked="" type="checkbox"/> See Fact Sheet SC-30, “Outdoor Loading and Unloading,” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input checked="" type="checkbox"/> N. Fire Sprinkler Test Water		<input checked="" type="checkbox"/> Provide a means to drain fire sprinkler test water to the sanitary sewer.	<input checked="" type="checkbox"/> See the note in Fact Sheet SC-41, “Building and Grounds Maintenance,” in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
<p>O. Miscellaneous Drain or Wash Water or Other Sources</p> <input type="checkbox"/> Boiler drain lines <input type="checkbox"/> Condensate drain lines <input type="checkbox"/> Rooftop equipment <input type="checkbox"/> Drainage sumps <input checked="" type="checkbox"/> Roofing, gutters, and trim. <input type="checkbox"/> Other sources		<input type="checkbox"/> Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system. <input type="checkbox"/> 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 <input type="checkbox"/> roofed and/or have secondary containment. Any drainage sumps on-site shall <input type="checkbox"/> feature a sediment sump to reduce the quantity of sediment in pumped water. <input checked="" type="checkbox"/> Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff. Include controls for other sources as specified by local reviewer.	

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
<input checked="" type="checkbox"/> P. Plazas, sidewalks, and parking lots.			<input type="checkbox"/> Sweep plazas, sidewalks, and parking lots regularly 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.

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

Will be provided during final engineering

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

Stormwater and the Construction Industry

Protect Natural Features



Bad



Good

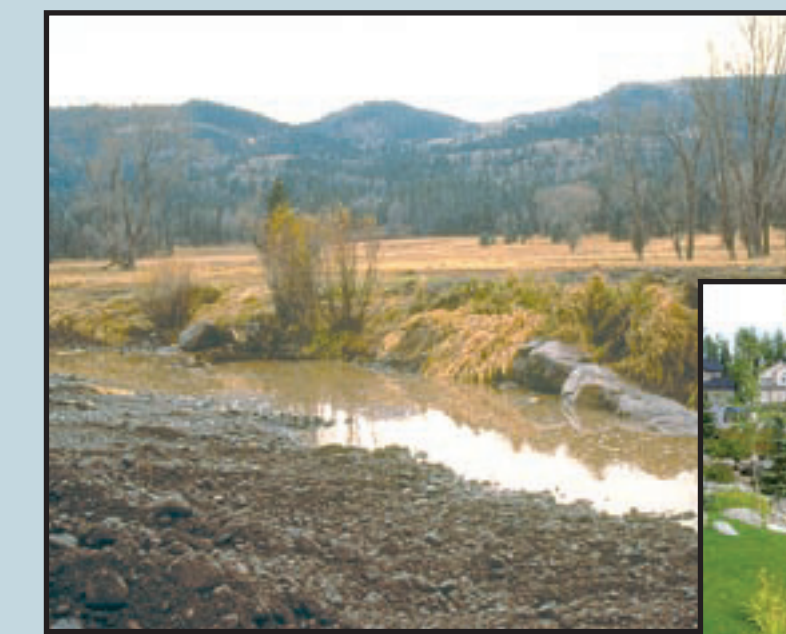
- Minimize clearing.
- Minimize the amount of exposed soil.
- Identify and protect areas where existing vegetation, such as trees, will not be disturbed by construction activity.
- Protect streams, stream buffers, wild woodlands, wetlands, or other sensitive areas from any disturbance or construction activity by fencing or otherwise clearly marking these areas.

Construction Phasing



- Sequence construction activities so that the soil is not exposed for long periods of time.
- Schedule or limit grading to small areas.
- Install key sediment control practices before site grading begins.
- Schedule site stabilization activities, such as landscaping, to be completed immediately after the land has been graded to its final contour.

Vegetative Buffers



Bad



Good

- Protect and install vegetative buffers along waterbodies to slow and filter stormwater runoff.
- Maintain buffers by mowing or replanting periodically to ensure their effectiveness.

Silt Fencing



Bad



Good

- Inspect and maintain silt fences after each rainstorm.
- Make sure the bottom of the silt fence is buried in the ground.
- Securely attach the material to the stakes.
- Don't place silt fences in the middle of a waterway or use them as a check dam.
- Make sure stormwater is not flowing around the silt fence.

Maintain your BMPs!
IN RIVERSIDE COUNTYCall 1-800-506-2555
TO REPORT ILLEGAL STORMDRAIN DISPOSAL

E-mail: Flood.fcnpdes@co.riverside.ca.us
Visit our website: www.floodcontrol.co.riverside.ca.us

Brought to you by the Storm Water/Clean Water Pollution
Protection Program.....

REMEMBER, ONLY RAIN IN THE STORMDRAIN!

Construction Entrances



Bad



Good

- Remove mud and dirt from the tires of construction vehicles before they enter a paved roadway.
- Properly size entrance BMPs for all anticipated vehicles.
- Make sure that the construction entrance does not become buried in soil.

Slopes



Bad



Good

- Rough grade or terrace slopes.
- Break up long slopes with sediment barriers, or under drain, or divert stormwater away from slopes.

Dirt Stockpiles



Bad



Good

- Cover or seed all dirt stockpiles.

Site Stabilization



Bad



Good

- Vegetate, mulch, or otherwise stabilize all exposed areas as soon as land alterations have been completed.

Storm Drain Inlet Protection



Bad



Good

- Use rock or other appropriate material to cover the storm drain inlet to filter out trash and debris.
- Make sure the rock size is appropriate (usually 1 to 2 inches in diameter).
- If you use inlet filters, maintain them regularly.

www.epa.gov/npdes/menuofbmps

Stormwater and the Construction Industry

Planning and Implementing Erosion and Sediment Control Practices

The construction industry is a critical participant in the nation's efforts to protect streams, rivers, lakes, wetlands, and oceans. Through the use of best management practices (BMPs), construction site operators are the key defense against erosion and sedimentation.

As stormwater flows over a construction site, it picks up pollutants like sediment, debris, and chemicals. High volumes of stormwater can also cause stream bank erosion, and destroy downstream aquatic habitat. Preventing soil erosion and sedimentation is an important responsibility at all construction sites.

In addition to the environmental impact, uncontrolled erosion can have a significant financial impact on a construction project. It costs money and time to repair gullies, replace vegetation, clean sediment-clogged storm drains, replace poorly installed BMPs, and mitigate damage to other people's property or to natural resources.

Best Management Practice (BMP)
A BMP is a method used to prevent or control stormwater runoff and the discharge of pollutants, including sediment, into local waterbodies. Silt fences, inlet protection, and site-stabilization techniques are typical BMPs on a construction site.
Operator
An operator is someone who has control over and the ability to modify construction plans and specifications (e.g. owner, general contractor)
or
Someone who has control over the day-to-day operations at a site (e.g., owner, general contractor) that are necessary to ensure compliance with the permit requirements. It is the responsibility of a construction site owner or operator to contain stormwater runoff and prevent erosion during all stages of a project.
There may be more than one person at a site who meets these definitions and must apply for permit coverage. (States may have different definitions of the term "operator.")

So what's being done about polluted runoff?

The Clean Water Act includes the National Pollutant Discharge Elimination System (NPDES) permitting program. As of January 2003, 44 states and territories are authorized to issue NPDES stormwater permits. If your state isn't authorized to operate the NPDES stormwater permit program, EPA issues the permits. Permits vary from state to state, so contact your state or EPA for specific information. Your permitting authority has specific information on your state's NPDES stormwater permit program. In general, construction permits require construction operators to do all of the following:

- Develop and implement a stormwater pollution prevention plan
- Submit a permit application or notice of intent (NOI)
- Comply with the permit, including maintaining BMPs and inspecting the site

Under the NPDES program, construction activities that disturb 1 or more acres are required to obtain stormwater permit coverage. States have different names for the plans that construction operators must develop, such as

- Stormwater pollution prevention plan
- Erosion and sediment control plan
- Erosion control and stormwater management plan
- Stormwater management plan
- Water pollution control plan
- Pollution prevention plan

This document uses the term "*Plan*."

I think I need a permit... Where do I start?

All land-disturbing activities, including clearing, grading, and excavation, that disturb **1 or more acres** are required to be covered under a state or EPA-issued NPDES construction stormwater permit **prior to land disturbance**. Permit requirements vary by state. Begin by researching the specific requirements in your state. You might already be subject to local erosion and sediment control requirements, but that doesn't release you from the requirements of the NPDES program at the state or EPA level. Although you must comply with both sets of requirements, in most cases they have been designed to be complementary. Contact your permitting authority to find out exactly what you need to do. A good place to start your search is the Construction Industry Compliance Assistance web site at <http://www.envcap.org/cica>.

The NPDES permit requirements include small construction activities that are part of a larger common plan of development or sale, such as a single lot within a larger subdivision. For developments with multiple operators, all operators must have permit coverage for their individual parts of the larger development, no matter how large or small each operation happens to be. When there are multiple operators at one site, they're encouraged to develop and share one comprehensive Plan and obtain permit coverage as co-permittees.

The **owner or operator** of the construction site is responsible for complying with the requirements of the permit. Responsibilities include developing a Plan, obtaining permit coverage, implementing BMPs, and stabilizing the site at the end of the construction activity.

Determine your eligibility

All construction activity that disturbs 1 or more acres of land, as well as activity that disturbs less than 1 acre but is part of a larger common plan of development, must obtain permit coverage.

Read and understand your stormwater permit requirements

Get a copy of the permit for construction activities and a permit application (or notice of intent form) from your state or EPA permitting authority.

Develop a Plan

Most states do not require you to submit your Plan. However, you do need to keep the Plan on site. If that's impractical, you may post a notice that tells where the Plan is kept so it can be accessed by the permitting authority and other interested parties.

You'll need to post a copy of your completed application on site. Put it in a place where the public can see it so they'll know your site is covered by an NPDES permit!

Apply for permit coverage

Once you understand your permit requirements and have developed a Plan, you can submit a stormwater permit application (or notice of intent) to your permitting authority. This must be done before beginning any land disturbance on the site. Some states require a few days of lead time, so check with your permitting authority. Once you've submitted the application, you must satisfy the conditions of the permit.

Implement the Plan

Be prepared to implement the BMPs in your Plan before construction begins. Ensure that BMPs are properly maintained, and upgrade and repair them as necessary.

Developing and Implementing a Plan

You must have a Plan that includes erosion and sediment control and pollution prevention BMPs. These Plans require

- Advance planning and training to ensure proper implementation of the BMPs
- Erosion and sediment control BMPs in place until the area is permanently stabilized
- Pollution prevention BMPs to keep the construction site "clean"
- Regular inspection of the construction site to ensure proper installation and maintenance of BMPs

Fortunately, the practices and measures that must be included in your Plan are already part of the standard operating procedures at many construction sites.

Six steps are associated with developing and implementing a stormwater Plan. There's a wealth of information available on developing pollution prevention plans. Please contact your permitting authority for help in finding additional guidance materials, or visit www.epa.gov/npdes/stormwater. A sample construction plan is available at www.epa.gov/npdes/pubs/sample_swppp.pdf.

1. Site Evaluation and Design Development

- Collect site information
- Develop site plan design
- Prepare pollution prevention site map

The first step in preparing a Plan is to define the characteristics of the site and the type of construction that will occur. This involves collecting site information, identifying natural features that should be protected, developing a site plan design, describing the nature of the construction activity, and preparing a pollution prevention site map.

2. Assessment

- Measure the site area
- Determine the drainage areas
- Calculate the runoff coefficient

The next step is assessing the impact the project will have on stormwater runoff. Determine the drainage areas and estimate the runoff amounts and velocities. For more information on calculating the runoff coefficient, go to www.epa.gov/npdes/pubs/chap02_conguide.pdf, page 11.

3. Control Selection and Plan Design

- Review and incorporate state or local requirements
- Select erosion and sediment controls
- Select other controls
- Select stormwater management controls
- Indicate the location of controls on the site map
- Prepare an inspection and maintenance plan
- Coordinate controls with construction activity
- Prepare sequence of major activities

In the third step you'll actually document your procedures to prevent and control polluted stormwater runoff. You must delineate areas that will not be disturbed, including critical natural areas like streamside areas, floodplains, and trees. You must also identify the measures (or BMPs) you'll use to protect these areas.

Soil erosion control tips...

- Design the site to infiltrate stormwater into the ground and to keep it out of storm drains. Eliminate or minimize the use of stormwater collection and conveyance systems while maximizing the use of stormwater infiltration and bioretention techniques.
- Minimize the amount of exposed soil on site.
 - ◆ To the extent possible, plan the project in stages to minimize the amount of area that is bare and subject to erosion. The less soil exposed, the easier and cheaper it will be to control erosion.
 - ◆ Vegetate disturbed areas with permanent or temporary seeding immediately upon reaching final grade.
 - ◆ Vegetate or cover stockpiles that will not be used immediately.
- Reduce the velocity of stormwater both onto and away from the project area.
 - ◆ Interceptors, diversions, vegetated buffers, and check dams are a few of the BMPs that can be used to slow down stormwater as it travels across and away from the project site.
 - ◆ Diversion measures can also be used to direct flow away from exposed areas toward stable portions of the site.
 - ◆ Silt fences and other types of perimeter filters should never be used to reduce the velocity of runoff.
- Protect defined channels immediately with measures adequate to handle the storm flows expected.
 - ◆ Sod, geotextile, natural fiber, riprap, or other stabilization measures should be used to allow the channels to carry water without causing erosion. Use softer measures like geotextile or vegetation where possible to prevent downstream impacts.
- Keep sediment on site.
 - ◆ Place aggregate or stone at construction site vehicle exits to accommodate at least two tire revolutions of large construction vehicles. Much of the dirt on the tires will fall off before the vehicle gets to the street.
 - ◆ Regular street sweeping at the construction entrance will prevent dirt from entering storm drains. Do not hose paved areas.
 - ◆ Sediment traps and basins are temporary structures and should be used in conjunction with other measures to reduce the amount of erosion.
- Maintaining all BMPs is critical to ensure their effectiveness during the life of the project.
 - ◆ Regularly remove collected sediment from silt fences, berms, traps, and other BMPs.
 - ◆ Ensure that geotextiles and mulch remain in place until vegetation is well established.
 - ◆ Maintain fences that protect sensitive areas, silt fences, diversion structures, and other BMPs.

Other BMPs and Activities to Control Polluted Runoff

You'll need to select other controls to address potential pollutant sources on your site. Construction materials, debris, trash, fuel, paint, and stockpiles become pollution sources when it rains. Basic pollution prevention practices can significantly reduce the amount of pollution leaving construction sites. The following are some simple practices that should be included in the Plan and implemented on site:

- Keep potential sources of pollution out of the rain as practicable (e.g., inside a building, covered with plastic or tarps, or sealed tightly in a leak-proof container).
- Clearly identify a protected, lined area for concrete truck washouts. This area should be located away from streams, storm drain inlets, or ditches and should be cleaned out periodically.
- Park, refuel, and maintain vehicles and equipment in one area of the site to minimize the area exposed to possible spills and fuel storage. This area should be well away from streams, storm drain inlets, or ditches. Keep spill kits close by and clean up any spills or leaks immediately, including spills on pavement or earthen surfaces.
- Practice good housekeeping. Keep the construction site free of litter, construction debris, and leaking containers. Keep all waste in one area to minimize cleaning.
- Never hose down paved surfaces to clean dust, debris, or trash. This water could wash directly into storm drains or streams. Sweep up materials and dispose of them in the trash. Never bury trash or debris!
- Dispose of hazardous materials properly.

4. Certification and Notification

- Certify the Plan
- Submit permit application or notice of intent

Once the Plan has been developed, an authorized representative must sign it. Now is the time to submit the permit application or notice of intent. Your permit might require that the Plan be kept on site, so be sure to keep it available for the staff implementing the Plan.

Erosion and sedimentation control practices are only as good as their installation and maintenance.

5. Implementing and Maintaining a Plan

- Implement controls
- Inspect and maintain controls
- Update/change the Plan
- Report releases of hazardous materials

A Plan describes the practices and activities you'll use to prevent stormwater contamination and meet the NPDES permit requirements. Make sure that the Plan is implemented and that the Plan is updated as necessary to reflect changes on the site.

Erosion and sedimentation control practices are only as good as their installation and maintenance. Train the contractors that will install the BMPs and inspect immediately to ensure that the BMPs have been installed correctly.

Regularly inspect the BMPs (especially before and after rain events) and perform any necessary repairs or maintenance immediately. Many BMPs are designed to handle a limited amount of sediment. If not maintained, they'll become ineffective and a source of sediment pollution.

It's also important to keep records of BMP installation, implementation, and maintenance. Keep track of major grading activities that occur on the site, when construction activities cease (temporarily or permanently), and when a site is temporarily or permanently stabilized.

If construction plans change at any time, or if more appropriate BMPs are chosen for the site, update the Plan accordingly.

6. Completing the Project: Final Stabilization and Termination of the Permit

- Final stabilization
- Notice of Termination
- Record retention

Many states and EPA require a Notice of Termination (NOT) or other notification signifying that the construction activity is completed. An NOT is required when

- Final stabilization has been achieved on all portions of the site for which the permittee is responsible.

- Another operator has assumed control over all areas of the site that have not been finally stabilized. That operator would need to submit a new permit application to the permitting authority.

- For residential construction only, temporary stabilization of a lot has been completed prior to transference of ownership to the homeowner, with the homeowner being made aware of the need to perform final stabilization.

Permittees must keep a copy of their permit application and their Plan for at least 3 years following final stabilization. This period may be longer depending on state and local requirements.

An ounce of prevention is worth a pound of cure! It's far more efficient and cost-effective to prevent pollution than it is to try to correct problems later. Installing and maintaining simple BMPs and pollution prevention techniques on site can greatly reduce the potential for stormwater pollution and can also save you money!

Preconstruction Checklist

- A site description, including
 - ◆ Nature of the activity
 - ◆ Intended sequence of major construction activities
 - ◆ Total area of the site
 - ◆ Existing soil type and rainfall runoff data
- A site map with:
 - Drainage patterns
 - Approximate slopes after major grading
 - Area of soil disturbance
 - Outline of areas which will not be disturbed
 - Location of major structural and nonstructural soil erosion controls
 - Areas where stabilization practices are expected to occur
 - Surface waters
 - Stormwater discharge locations
- ◆ Name of the receiving water(s)
- A description of controls:
 - ◆ Erosion and sediment controls, including
 - Stabilization practices for all areas disturbed by construction
 - Structural practices for all drainage/discharge locations
 - ◆ Stormwater management controls, including
 - Measures used to control pollutants occurring in stormwater discharges after construction activities are complete
 - Velocity dissipation devices to provide nonerosive flow conditions from the discharge point along the length of any outfall channel
 - ◆ Other controls, including
 - Waste disposal practices that prevent discharge of solid materials
 - Measures to minimize offset tracking of sediments by construction vehicles
 - Measures to ensure compliance with state or local waste disposal, sanitary sewer, or septic system regulations
 - ◆ Description of the timing during the construction when measures will be implemented
- State or local requirements incorporated into the Plan
- Inspection and maintenance procedures for control measures identified in the Plan
- Contractor certification and Plan certification

Implementation Checklist

- Maintain records of construction activities, including
 - ◆ Dates when major grading activities occur
 - ◆ Dates when construction activities temporarily cease on the site or a portion of the site
 - ◆ Dates when construction activities permanently cease on the site or a portion of the site
 - ◆ Dates when stabilization measures are completed on the site
- Prepare inspection reports summarizing
 - ◆ Name of person conducting BMP inspections
 - ◆ Qualifications of person conducting BMP inspections
 - ◆ BMPs/areas inspected
 - ◆ Observed conditions
 - ◆ Necessary changes to the Plan
- Report releases of reportable quantities of oil or hazardous materials
 - ◆ Notify the National Response Center at 800-424-8802 immediately
 - ◆ Report releases to your permitting authority immediately, or as specified in your permit. You must also provide a written report within 14 days.
 - ◆ Modify the Plan to include
 - The date of release
 - Circumstances leading to the release
 - Steps taken to prevent reoccurrence of the release
- Modify Plan as necessary
 - ◆ Incorporate requests of the permitting authority to bring the Plan into compliance
 - ◆ Address changes in design, construction operation, or maintenance that affect the potential for discharge of pollutants



Storm Water
Clean Water
PROTECTION PROGRAM

Visit www.epa.gov/npdes/stormwater for more information.

Resources

State Water Resources Control Board

Division of Water Quality

1001 I Street

Sacramento CA 95814

(916) 341-5455

www.swrcb.ca.gov/stormwtr/

Colorado River Basin Regional Water

Quality Control Board - Region 7

73-720 Fred Waring Drive, Suite 100

Palm Desert, CA 92260

(760) 346-7491

www.swrcb.ca.gov/~rwqcb7/

Santa Ana Regional Water

Quality Control Board - Region 8

3737 Main Street, Suite 500

Riverside, CA 92501-3348

(909) 782-4130

www.swrcb.ca.gov/~rwqcb8/

San Diego Regional Water

Quality Control Board - Region 9

9771 Clairemont Mesa Blvd., Suite A

San Diego, CA 92124

(858) 467-2952

www.swrcb.ca.gov/~rwqcb9/

To report a hazardous materials spill, call:

Riverside County Hazardous Materials

Emergency Response Team

(909) 358-5055 8:00 a.m. – 5:00 p.m.

(909) 358-5245 after 5:00 p.m.

In an emergency call: 911

For recycling and hazardous waste

disposal, call:

(909) 358-5055

To report an illegal dumping or a clogged storm drain, call:

1-800-506-2555

To order additional brochures or to obtain information on other pollution prevention activities, please call (909) 955-1200 or visit the StormWater/CleanWater Protection Program website at:

www.co.riverside.ca.us/depts/flood/waterquality/npdes.asp



The StormWater/CleanWater Protection Program gratefully acknowledges the Santa Clara Valley Nonpoint Pollution Control Program, Alameda Countywide CleanWater Program and the City of Los Angeles Stormwater Management Division for information provided in this brochure.

StormWater Pollution . . . What You Should Know

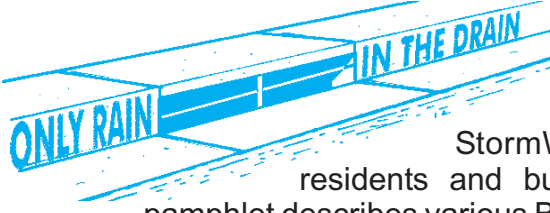
Riverside County has two drainage systems - sewers and storm drains. The storm drain system was designed to reduce flooding by carrying excess rainwater away from streets and developed areas. Since the storm drain system does not provide for water treatment, it also serves the *unintended* function of transporting pollutants directly to our local waterways.

Unlike sanitary sewers, storm drains are not connected to a wastewater treatment plant – they flow directly to our local streams, rivers and lakes.

Stormwater runoff is a part of the natural hydrologic process. However, land development and construction activities can significantly alter natural drainage processes and introduce pollutants into stormwater runoff. Polluted stormwater runoff from construction sites has been identified as a major source of water pollution in California. It jeopardizes the quality of our local waterways and can pose a serious threat to the health of our aquatic ecosystems.



The Cities and County of Riverside StormWater/CleanWater Protection Program



Because preventing pollution is much easier and less costly than cleaning up “after the fact,” the Cities and County of Riverside StormWater/CleanWater Protection Program informs residents and businesses on pollution prevention activities. This pamphlet describes various Best Management Practices (BMPs) that construction site operators can use to prevent stormwater pollution.

In accordance with applicable federal and state law, the Cities and County of Riverside have adopted ordinances for stormwater management and discharge control that **prohibit** the discharge of pollutants into the storm drain system or local surface water. This includes discharges from construction sites containing sediment, concrete, mortar, paint, solvents, lubricants, vehicle fluids, fuel, pesticides, and construction debris.

PLEASE NOTE: The Federal, State and local regulations strictly prohibit the discharge of sediment and pollutants into the streets, the storm drain system or waterways. As an owner, operator or supervisor of a construction site, you may be held financially responsible for any environmental damage caused by your subcontractors or employees.



Best Management Practices (BMPs) for:

- Developers
- General Contractors
- Home Builders
- Construction Inspectors
- Anyone in the construction business



What you should know for...

StormWater Pollution

What Should You Do?

Advance Planning to Prevent Pollution

- ❑ Remove existing vegetation only as needed.
- ❑ Schedule excavation, grading, and paving operations for dry weather periods, if possible.
- ❑ Designate a specific area of the construction site, well away from storm drain inlets or watercourses, for material storage and equipment maintenance.
- ❑ Develop and implement an effective combination of erosion and sediment controls for the construction site.
- ❑ Practice source reduction by ordering only the amount of materials that are needed to finish the project.
- ❑ Educate your employees and subcontractors about stormwater management requirements and their pollution prevention responsibilities.
- ❑ Control the amount of surface runoff at the construction site by impeding internally generated flows and using berms or drainage ditches to direct incoming offsite flows to go around the site. *Note: Consult local drainage policies for more information.*

BEST MANAGEMENT PRACTICES

The following Best Management Practices (BMPs) can significantly reduce pollutant discharges from your construction site. Compliance with stormwater regulations can be as simple as minimizing stormwater contact with potential pollutants by providing covers and secondary containment for construction materials, designating areas away from storm drain systems for storing equipment and materials and implementing good housekeeping practices at the construction site.

- ❑ Protect all storm drain inlets and streams located near the construction site to prevent sediment-laden water from entering the storm drain system.
- ❑ Limit access to and from the site. Stabilize construction entrances/exits to minimize the track out of dirt and mud onto adjacent streets. Conduct frequent street sweeping.
- ❑ Protect stockpiles and construction materials from winds and rain by storing them under a roof, secured impermeable tarp or plastic sheeting.
- ❑ Avoid storing or stockpiling materials near storm drain inlets, gullies or streams.
- ❑ Phase grading operations to limit disturbed areas and duration of exposure.
- ❑ Perform major maintenance and repairs of vehicles and equipment offsite.
- ❑ Wash out concrete mixers only in designated washout areas at the construction site.
- ❑ Set-up and operate small concrete mixers on tarps or heavy plastic drop cloths.
- ❑ Keep construction sites clean by removing trash, debris, wastes, etc. on a regular basis.
- ❑ Clean-up spills immediately using dry clean-up methods (e.g., absorbent materials such as cat litter, sand or rags for liquid spills; sweeping for dry spills such as cement, mortar or fertilizer) and by removing the contaminated soil from spills on dirt areas. .
- ❑ Prevent erosion by implementing any or a combination of soil stabilization practices such as mulching, surface roughening, permanent or temporary seeding.
- ❑ Maintain all vehicles and equipment in good working condition. Inspect frequently for leaks, and repair promptly.
- ❑ Practice proper waste disposal. Many construction materials and wastes, including solvents, water-based paint, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste.
- ❑ Cover open dumpsters with secured tarps or plastic sheeting. Never clean out a dumpster by washing it down on the construction site.
- ❑ Arrange for an adequate debris disposal schedule to insure that dumpsters do not overflow.

GENERAL CONSTRUCTION ACTIVITIES STORMWATER PERMIT

(Construction Activities General Permit)

The State Water Resources Control Board (SWRCB) adopted a new Construction Activities General Permit (WQ Order No. 99-08DWQ) on August 19, 1999, superseding the now expired SWRCB statewide General Permit (WQ Order No. 92-08DWQ). This permit is administered and enforced by the SWRCB and the local Regional Water Quality Control Boards (RWQCB). The updated Construction Activities General Permit establishes a number of new stormwater management requirements for construction site operator.

***NOTE:** Some construction activities stormwater permits are issued on a regional basis. Consult your local RWQCB to find out if your project requires coverage under any of these permits.*

Frequently Asked Questions:

Does my construction site require coverage under the Construction Activities General Permit?

Yes, if construction activity results in the disturbance of five or more acres of total land area or is part of a common plan of development that results in the disturbance of five or more acres.

How do I obtain coverage under the Construction Activities General Permit?

Obtain the permit package and submit the completed Notice of Intent (NOI) form to the

SWRCB prior to grading or disturbing soil at the construction site. For ongoing construction activity involving a change of ownership, the new owner must submit a new NOI within 30 days of the date of change of ownership. The completed NOI along with the required fee should be mailed to the SWRCB.

What must I do to comply with the requirements of the Construction Activities General Permit?

- Implement BMPs for non-stormwater discharges year-round.
- Prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) prior to commencing construction activities.
- Keep a copy of the SWPPP at the construction site for the entire duration of the project.
- Calculate the anticipated stormwater runoff.
- Implement an effective combination of erosion and sediment control on all soil disturbed areas.
- Conduct site inspections prior to anticipated storm events, every 24-hours during extended storm events, and after actual storm event.
- Perform repair and maintenance of BMPs as soon as possible after storm events depending upon worker safety.

- Update the SWPPP as needed, to manage pollutants or reflect changes in site conditions.
- Include description of post construction BMPs at the construction site, including parties responsible for long-term maintenance.

***NOTE:** Please refer to the Construction Activities General Permit for detailed information. You may contact the SWRCB, your local RWQCB, or visit the SWRCB website at www.swrcb.ca.gov/stormwtr/ to obtain a State Construction Activities Stormwater General Permit packet.*

How long is this Construction Activities General Permit in effect?

The Permit coverage stays in effect until you submit a Notice of Termination (NOT) to the SWRCB. For the purpose of submitting a NOT, all soil disturbing activities have to be completed and one of the three following criteria has to be met:

1. Change of ownership;
2. A uniform vegetative cover with 70 percent coverage has been established; or,
3. Equivalent stabilization measures such as the use of reinforced channel liners, soil cement, fiber matrices, geotextiles, etc., have been employed.



Riverside County Stormwater Program Members

City of Banning
(951) 922-3105

City of Beaumont
(951) 769-8520

City of Calimesa
(909) 795-9801

City of Canyon Lake
(951) 244-2955

City of Cathedral City
(760) 770-0340

City of Coachella
(760) 398-3502

City of Corona
(951) 736-2447

City of Desert Hot Springs
(760) 329-6411

City of Eastvale
(951) 361-0900

City of Hemet
(951) 765-2300

City of Indian Wells
(760) 346-2489

City of Indio
(760) 391-4000

City of Jurupa Valley
(951) 332-6464

City of Lake Elsinore
(951) 674-3124

City of La Quinta
(760) 777-7000

City of Menifee
(951) 672-6777

City of Moreno Valley
(951) 413-3000

City of Murrieta
(951) 304-2489

City of Norco
(951) 270-5607

City of Palm Desert
(760) 346-0611

City of Palm Springs
(760) 323-8299

City of Perris
(951) 943-6100

City of Rancho Mirage
(760) 324-4511

City of Riverside
(951) 826-5311

City of San Jacinto
(951) 487-7330

City of Temecula
(951) 694-6444

City of Wildomar
(951) 677-7751

Coachella Valley Water District
(760) 398-2651

County of Riverside
(951) 955-1000

Riverside County Flood Control District
(951) 955-1200

Stormwater Pollution

What you should know for...

Industrial & Commercial Facilities

Best Management Practices (BMPs) for:

- Industrial Facilities
- Commercial Facilities



YOU can prevent Stormwater Pollution following these practices...

Industrial and Commercial Facilities

The Riverside County Stormwater Program has identified a number of Best Management Practices (BMPs) for Industrial and Commercial Facilities. These BMPs control and reduce stormwater pollutants from reaching our storm drain system and ultimately our local water bodies. City and County ordinances require businesses to use these BMPs to protect our water quality. Local cities and the County are required to verify implementation of these BMPs by performing regular facility inspections.

Prohibited Discharges

Discontinue all non-stormwater discharges to the storm drain system. It is *prohibited* to discharge any chemicals, paints, debris, wastes or wastewater into the gutter, street or storm drain.

Outdoor Storage BMPs

- Install covers and secondary containment areas for all hazardous materials and wastes stored outdoors in accordance with County and/or City standards.
- Keep all temporary waste containers covered, at all times when not in use.
- Sweep outdoor areas instead of using a hose or pressure washer.
- Move all process operations including vehicle/equipment maintenance inside of the building or under a covered and contained area.
- Wash equipment and vehicles in a contained and covered wash bay which is closed-loop or connected to a clarifier sized to local standards and discharged to a sanitary sewer or take them to a commercial car wash.



Spills and Clean Up BMPs

- Keep the work site clean and orderly. Remove debris in a timely fashion. Sweep up the area.
- Clean up spills immediately when they occur, using dry clean up methods such as absorbent materials or sweep followed by proper disposal of materials.

- Always have a spill kit available near chemical loading dock doors and vehicle maintenance and fueling areas.
- Follow your Business Emergency Plan, as filed with the local Fire Department.
- Report all prohibited discharges and non-implementation of BMPs to your local Stormwater Coordinator as listed on the back of this pamphlet.
- Report hazardous materials spills to 951-358-5055 or call after hours to 951-782-2973 or, if an emergency, call the Fire Department's Haz Mat Team at 911.



Plastic Manufacturing Facilities BMPs

AB 258 requires plastic product manufacturers to use BMPs, such as safe storage and clean-up procedures to prevent plastic pellets (nurdles) from entering the waterway. The plastic pellets are released into the environment during transporting, packaging and processing and migrate to waterways through the storm drain system. AB 258 will help protect fish and wildlife from the hazards of plastic pollution.

Training BMPs

As prescribed by your City and County Stormwater Ordinance(s), train employees in spill procedures and prohibit non-stormwater discharges to the storm drain system. Applicable BMP examples can be found at www.cabmphandbooks.com.

Permitting

Stormwater discharges associated with specific categories for industrial facilities are regulated by the State Water Resources Control Board through an Industrial Stormwater General Permit. A copy of this General Permit and application forms are available at: www.waterboards.ca.gov, select stormwater then the industrial quick link.

To report illegal dumping or for more information on stormwater pollution prevention call: 1-800-506-2555 or e-mail us at: fcnpdes@rcfllood.org.



Landscaping and garden maintenance activities can be major contributors to water pollution. Soils, yard wastes, over-watering and garden chemicals become part of the urban runoff mix that winds its way through streets, gutters and storm drains before entering lakes, rivers, streams, etc. Urban runoff pollution contaminates water and harms aquatic life!

In Riverside County, report illegal discharges into the storm drain, call
1-800-506-2555
"Only Rain Down the Storm Drain"

Important Links:

Riverside County Household Hazardous Waste Collection Information
1-800-304-2226 or www.rivcowm.org

Riverside County Backyard Composting Program
1-800-366-SAVE

Integrated Pest Management (IPM) Solutions
www.ipm.ucdavis.edu

California Master Gardener Programs
www.mastergardeners.org
www.camastergardeners.ucdavis.edu

California Native Plant Society
www.cnps.org

The Riverside County "Only Rain Down the Storm Drain" Pollution Prevention Program gratefully acknowledges Orange County's Storm Water Program for their contribution to this brochure.

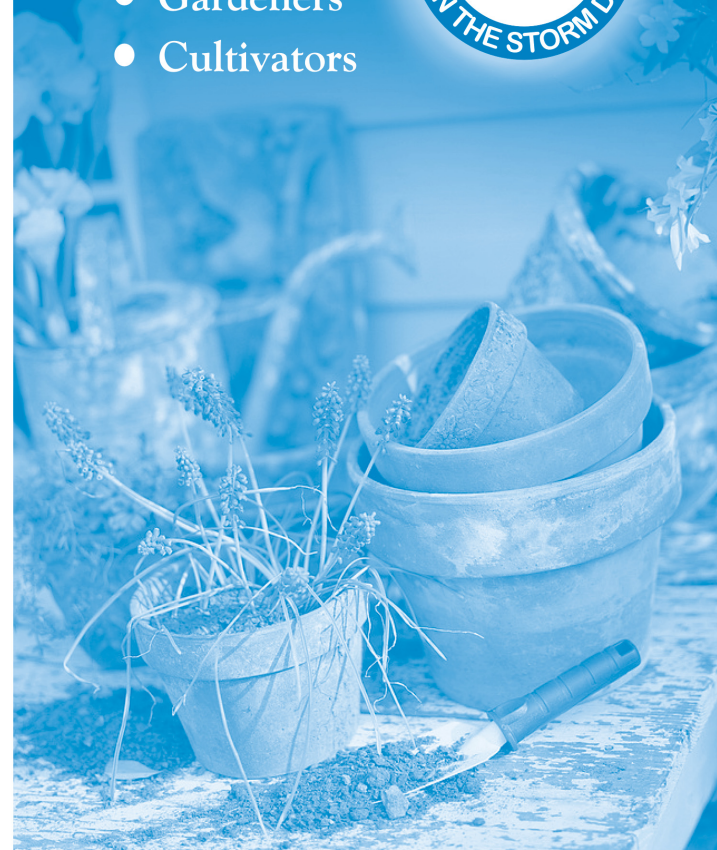


...Only Rain Down ...the Storm Drain

*What you should know for...
Landscape and Gardening*

Best Management tips for:

- Professionals
- Novices
- Landscapers
- Gardeners
- Cultivators



Tips for Landscape & Gardening

This brochure will help you to get the most of your lawn and gardening efforts and keep our waterways clean. Clean waterways provide recreation, establish thriving fish habitats, secure safe sanctuaries for wildlife, and add beauty to our communities. NEVER allow gardening products or waste water to enter the street, gutter or storm drain.

General Landscaping Tips

- Protect stockpiles and materials from wind and rain by storing them under tarps or secured plastic sheeting.
- Prevent erosion of slopes by planting fast-growing, dense ground covering plants. These will shield and bind the soil.
- Plant native vegetation to reduce the amount of water, fertilizers and pesticides applied to the landscape.
- Never apply pesticides or fertilizers when rain is predicted within the next 48 hours.



Garden & Lawn Maintenance

- Do not overwater. Use irrigation practices such as drip irrigation, soaker hoses or micro-spray systems. Periodically inspect and fix leaks and misdirected sprinklers.

- Do not rake or blow leaves, clippings or pruning waste into the street, gutter or storm drain. Instead, dispose of green waste by composting, hauling it to a permitted landfill, or recycling it through your city's program.



- Consider recycling your green waste and adding "nature's own fertilizer" to your lawn or garden.
- Read labels and use only as directed. Do not over-apply pesticides or fertilizers. Apply to spots as needed, rather than blanketing an entire area.
- Store pesticides, fertilizers and other chemicals in a dry covered area to prevent exposure that may result in the deterioration of containers and packaging.
- Rinse empty pesticide containers and re-use rinse water as you would use the product. Do not dump rinse water down storm drains or sewers. Dispose of empty containers in the trash.
- When available, use non-toxic alternatives to traditional pesticides, and use pesticides specifically designed to control the pest you are targeting.

- Try natural long-term common sense solutions first. Integrated Pest Management (IPM) can provide landscaping guidance and solutions, such as:

- ◆ **Physical Controls** - Try hand picking, barriers, traps or caulking holes to control weeds and pests.
- ◆ **Biological Controls** - Use predatory insects to control harmful pests.
- ◆ **Chemical Controls** - Check out www.ipm.ucdavis.edu before using chemicals. Remember, all chemicals should be used cautiously and in moderation.

- If fertilizer is spilled, sweep up the spill before irrigating. If the spill is liquid, apply an absorbent material such as cat litter, and then sweep it up and dispose of it in the trash.
- Take unwanted pesticides to a Household Waste Collection Center to be recycled.
- *Dumping toxics into the street, gutter or storm drain is illegal!*

www.bewaterwise.com Great water conservation tips and drought tolerant garden designs.

www.ourwaterourworld.com Learn how to safely manage home and garden pests.

Additional information can also be found on the back of this brochure.



Living on the Edge

Your community preserves habitat for important native plants and animals. By habitat, we mean homes; food, water, and places with space to live. The habitat is managed as part of a **biological conservation easement**, a legal agreement that permanently limits its use.

Many conservation easements include a waterway or wetland because plants and animals need clean, fresh water, the most limited resource in our dry Southern California climate. A waterway (also called watercourse, arroyo, wash) conveys a flowing creek, stream, or river, which provides drinking water for local and migrating wildlife.

Not all of our waterways have visible flowing water year-round. Some creeks and streams continue to flow underground, while others flow for a short time after a storm (ephemeral). The small, and often dry washes are important to wildlife because they provide habitat and their periodic flows drain into larger waterways. It's essential that people do not degrade the quality of any water that reaches local waterways.

Water supports an abundance of vegetation and a variety of life, or *biodiversity*. Streamside vegetation, along dry or flowing waterways, is referred to as *riparian*. **Native** riparian plants provide **native** animals with suitable food, shelter, nesting sites and escape-cover from predators.

Help Your Wild Next-Door Neighbors

The purpose of this publication is to help homeowners become *habitat-friendly* neighbors for nearby habitat lands. The *Resources Directory*, inserted inside this booklet, provides helpful websites and contact information for agencies, organizations, gardens, and native plant nurseries.

Unfortunately, our modern-day lifestyles have negative impacts on the environment around us. Human activity in, or near waterways can damage the capacity of the habitat to support some kinds of plant and animal life, especially species that do not adapt to urban/suburban conditions. Here are some ways to prevent and reduce negative impacts and help restore habitat to healthy conditions.

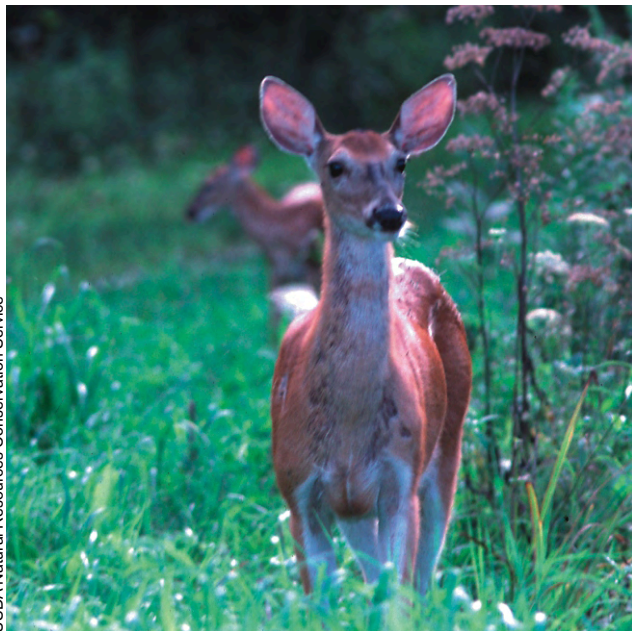
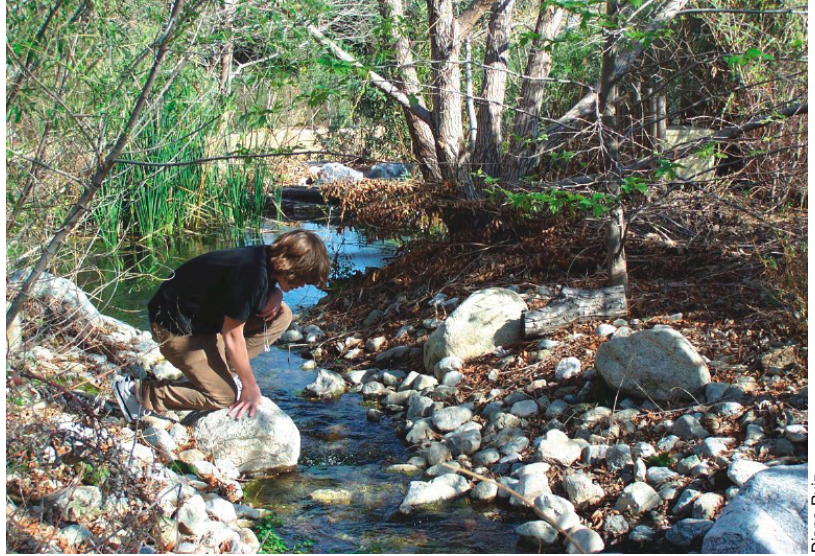


Gerald & Buff Crosi, California Academy of Sciences

Reduce Impacts on Native Wildlife

Prevent light, noise, and activity in, and adjacent to wetlands.

- If you wish to observe wildlife, please watch from afar, especially during the breeding and nesting season, from March to September. Most wild animals are naturally fearful of human contact. Human activity near a nest or den may frighten adult animals away from young and jeopardize their survival.
- When visiting natural areas, disturb as little as possible. Avoid walking or riding in a stream course or on channel banks. Heavy foot traffic, horses, and off-road vehicles may cause channel banks to collapse, accelerating erosion and increasing water-borne sediment and turbidity.
- Help control entry into habitat areas. Close unessential roadways to prevent access for illegal dumping, trespass, and off-road vehicle use.
- Leave nothing behind.
- Focus necessary lighting downward and inward toward your home, yard, and buildings.
- To report poaching or polluting call CalTIP, Californians Turn In Poachers and Polluters, a confidential secret witness program. The toll free telephone number operates 24 hours a day, 7 days a week. (See the *Resources Directory* insert for contact information.)



Do not allow pets to roam in habitat land where they will disturb and hunt native wildlife. Keep pets on a leash and droppings out of waterways. Cats and dogs stress or kill wildlife and prevent natural ecosystems from supporting their own predators, such as hawks, coyotes, foxes, and bobcats. Conversely, domesticated animals face hazards in wild areas. Pets may be attacked by predators, such as coyotes and rattlesnakes, or may contract disease, fleas, and ticks.

Do not release unwanted animals into the wild. Abandoned cats, dogs, birds, reptiles and fish can have significant impacts on populations of native species, either through disease, predation or competition for food and space.



Brown-headed Cowbird

- Exotic invaders crowd out native species both on land and in water. Do not place fish, frogs, crayfish, turtles, or aquatic plants into creeks, streams or lakes. Some non-native species are not only able to survive, but also reproduce explosively due to a lack of natural predators. For

example, the brown-headed cowbird is overwhelming riparian habitats. The cowbird lays its eggs in another bird's nest to the detriment of the host's young.

- Pets are usually unable to survive in wildlands. They starve to death or are eaten. If you cannot find a home for a pet, contact animal control, your local animal shelter, or the Humane Society.



The endangered Least Bell's Vireo is threatened by the Brown-headed Cowbird.

Respect and protect wild animals by keeping them wild. In some instances, being a good neighbor means protecting your living area by excluding certain kinds of wildlife, mainly mammals. The *human habitat* includes home sites, buildings, yards, gardens, and regularly used outdoor areas. Install fencing around the human habitat portion of your property and secure enclosures to protect children, pets, and farm animals.

- Do not take small animals, such as tortoises, tadpoles, frogs, snakes, birds, lizards or eggs from the wild. Never attempt to "adopt" or domesticate a wild animal.
- Discourage dangerous predators from penetrating human habitat areas. Install fencing that will exclude predators. Place sensors that trigger sprinklers and lights to deter predators and mammals from entering areas of human activity.
- Prevent mammals from living in and near your home by closing entries, filling holes, and removing brush, junk, and woodpiles near buildings.
- Don't feed human food to wildlife. Do not leave pet food outside. Prevent garbage from becoming a food source for wild mammals by sealing trash can lids. If you compost, use closed-containers or turn piles regularly. Compost plant material only; meat scraps should not be mixed in a compost pile.



For more information, contact the California Department of Fish and Game. (See the *Resources Directory* insert for contact information.)

Reduce Impacts on Native Plants

Remove invasive, non-native plants from home landscaping and adjacent habitat lands, especially those that quickly spread through waterways, displacing important native species.

DO NOT PLANT

Giant reed
Salt Cedar
Tree of Heaven
Red apple, heartleaf iceplant
Fountain grass (yellow)
Castor bean
Periwinkle
Peruvian (Calif.) pepper tree
Brazilian pepper tree
Mexican fan palm
Sweet fennel
Pampas grass/Jubata grass
Common iceplant
Myoporum species

Arundo donax
Tamarix chinensis
Ailanthus altissima
Aptenia cordifolia
Pennisetum setaceum
Ricinus communis
Vinca major
Schinus molle
Schinus terebinthifolius
Washingtonia robusta
Foeniculum vulgare
Cortaderia jubata/selloana
Mesembryanthemum crystallinum



Diana Ruiz

Invasive Giant Reed (*Arundo donax*) is being removed from Temescal Creek.

Contact your local Resource Conservation District for help identifying invasive species and for removal of exotic weeds from waterways. Visit the California Invasive Plant Council web site for suggested plants to replace invasives. (See the *Resources Directory* insert for contact information.)

Protect Water Quality

Make sure that the water that flows off your property is clean.

- Prevent trash, debris, and waste of any kind from washing off homesites and streets into gutters, storm drains, and dry washes. These drainage-ways empty into streams that flow to the Santa Ana River, and ultimately, the ocean.
- Evaluate the flow of runoff over your property. Place manure, barnyard bedding, and debris in areas where water does not pool or flow, or reuse the waste as fertilizer or mulch. Check with your local municipality for ordinances concerning the disposal of manure and bedding.
- Use care when applying fertilizers, pesticides, and herbicides on your property. Read labels "before you buy and before you apply" for directions, application rates, and disposal. Apply the correct amount at the proper time, for example, not during plant dormancy.



Diana Ruiz



Praying mantis



Ladybird beetle



Lacewing

Photos by Greg Balmer

- Reduce or eliminate the use of pesticides by using “beneficial insects” (ladybugs, praying mantids, lacewings, etc.) If you must use a pesticide, use one with a *least-toxic* rating, such as insecticidal soaps, horticultural oils, pyrethrin-based insecticides, and insect growth regulators.
- Control erosion to prevent sediment from entering runoff.
- If you have a septic system, inspect and maintain it. Poorly placed and neglected septic systems contaminate groundwater and streams.

Pollutants that flow from residential and urban areas contaminate surface water and the water that percolates into underground water basins (aquifers). Much of our local water supply is pumped from underground aquifers, so keeping runoff clean is essential.

To report any non-emergency crime, such as dumping, please call your City Police or County Sheriff Departments. To report illegal grading or dumping in waterways, contact your City or County Code Enforcement Department. (See the *Resources Directory* insert for contact numbers.)

Dispose of waste in its proper place.

- Read product labels, and dispose of household hazardous wastes (oil based paints, pesticides, antifreeze, motor oil, batteries, fluorescent bulbs, etc.) in prescribed ways and at designated disposal sites or community collection events, not on the ground or in a storm drain inlet. Whenever possible, reduce the use of hazardous materials in and around your home. Call the *Only Rain Down the Storm Drain* program for disposal dates and locations. (See the *Resources Directory* insert for contact numbers.) You can also recycle automotive fluids, tires, and batteries at car repair businesses.
- Dispose of trash at sanitary landfills.
- Compost yard and other organic wastes.



Diana Ruiz

Better yet:
Reduce,
Reuse,
Recycle.

Provide Space for Habitat, Fire, and Flood Protection



Robert Caliva

Siting Homes Near Waterways

If you are building next to a waterway, leave a buffer between the waterway and your *human habitat* area of graded pads, structures, and ornamental landscaping. *Wildlife habitat* land includes areas beyond buildings, yards, and defensible space (fire safety zones), generally to be left undisturbed for wildlife. A buffer between the human habitat and a waterway provides space for habitat, flood waters, and for wildlife escape during high water.

The buffer or “setback” distance will vary according to site conditions, however a minimum 100-foot setback from the **top edge** of a waterway, not from the water itself, is recommended. This allows space for creek/stream meander and high water flows. The banks of creeks and streams “meander”, which means they are constantly “wandering” or relocating. Meander naturally occurs when flows cause erosion of channel banks and deposition of sediment.

As land is converted to urban uses, the volume of flow in waterways increases. Impervious surfaces from streets, roofs, and parking lots increase the amount of runoff, erosion and pollutants that degrade water quality.



Frank Heyming

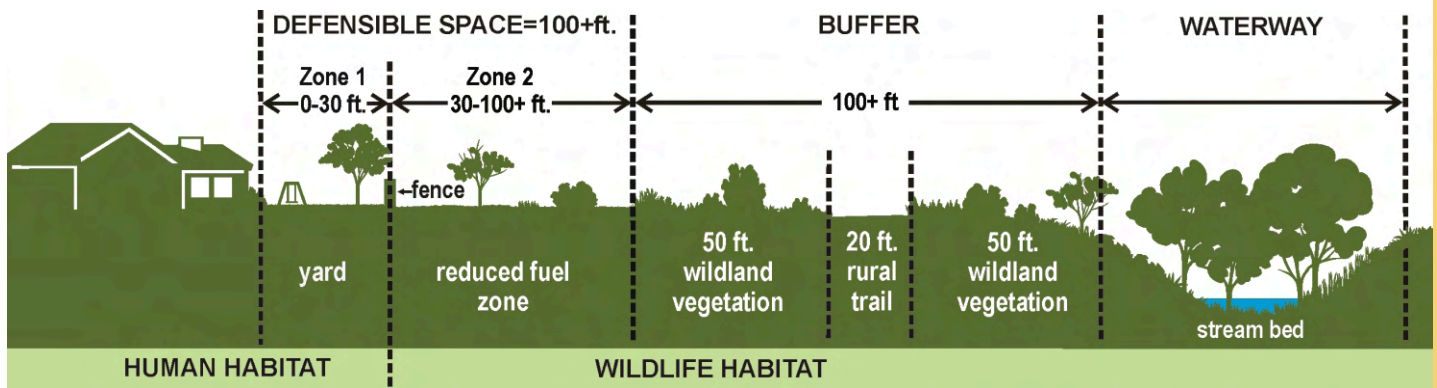
A house pad fills an important tributary to a waterway.

Many people are not aware of the vulnerability of natural ecosystems, nor are they aware that it is illegal to grade or alter a waterway without an assessment and permits from resource agencies and municipalities. If you propose an activity that will impact a stream, river, or lake, the California Department of Fish and Game (DFG) requires completion of a Streambed Alteration Agreement. Depending on the activity you are proposing, you may need to obtain a permit, agreement, or other authorization from one or more government agencies. Notify DFG, U.S. Army Corps of Engineers, and the Santa Ana Regional Water Quality Control Board during early planning, prior to beginning a project that will:

- use material from a streambed;
- divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake;
- result in the disposal or deposition of debris, waste, or other natural material where it can pass into any river, stream, or lake.

A Streambed Alteration Agreement is also required for streams that flow intermittently, such as dry washes and waterways with subsurface flow.

It is essential that landowners do not confine, or encroach on waterways. Keep buildings, septic systems, horses, livestock, fencing, agricultural and ornamental plantings out of waterways and away from channel banks.



When building homes in fire-prone areas, avoid ridge tops and canyons. Set buildings back from the edge of steep slopes. Create a minimum distance of 100-feet of *defensible space*, a managed area around a home, where the amount of fuel (dead plants, dry leaves, wood) has been reduced. Consult with your local fire department or the California Department of Forestry and Fire Protection for fire safety and weed abatement information. (Please see *Resources Directory* insert).

Habitat-friendly Yards

Landscape with Locals. Not just any California native plant is suitable for landscapes near habitat lands. Local native plants are the safest because they have unique characteristics that have helped them survive in their specific environments. Gardening with local flora helps maintain the *genetic integrity* of local plants and ecosystems. It helps maintain regional variation in vegetation and wildlife.

Why is regional variation important? If plants from other areas crossbreed with local natives, scientists fear that local populations would lose some of the unique characteristics that are important for success in this region. Their genetic material would no longer be unique and regionally identifiable. Plant interbreeding could reduce biological diversity, *biodiversity*, in the gene pool. There are important interactions between native plants, microorganisms, and the animals that use them, some of which are critical to the reproduction and survival of native plants and animals.

Create habitat in your yard for urban-adapted wildlife. Even if you live in the heart of a city, consider gardening for urban-adapted wildlife by providing a reliable water source and **local** native plants that provide food, shelter, and nesting sites. Each small patch of yard provides a stepping-stone of habitat from wildlands across the city. A patchwork of *habitat-yards* creates an urban ecosystem that more closely mimics our predevelopment, native landscape. When linked together, those patches cumulatively support biodiversity. To host a variety of native birds and butterflies in your yard, select plants that flower and fruit at different times of the year. Prune trees and shrubs in fall and early winter, rather than spring, to avoid destroying bird nests.



Len Nunney

Benefits of landscaping with local native plants:

- Most native plants are drought tolerant, so they require less water.
- Natives rarely require fertilizers.
- Patches of habitat support urban-adapted wildlife, such as birds, bats and insects that help pollinate plants.
- Natives rarely require pesticides. Native plants provide their own natural pest control by attracting beneficial insects that prey on troublesome bugs.
- Local natives help preserve *genetic diversity* and the integrity of local ecosystems.

Water-wise Landscapes Conserve Water

Reduce water-use by replacing unnecessary lawn areas with native or drought-tolerant plants and with hardscape (hard surfaces), such as walkways and patios of concrete, brick, stone, decomposed granite, and permeable paving. For places where you do need a lawn, such as play areas, plant a low water-use turf variety.

When selecting a plant, find out:

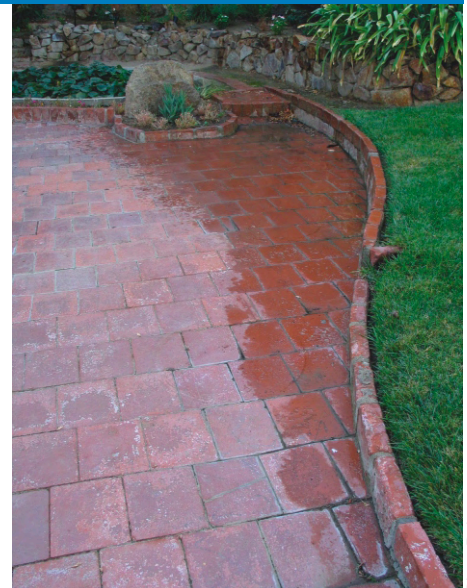
- Is it water-thirsty or drought-tolerant?
- When is its growing season; when will it need water?

Most* local native plants are dormant or slow-growing during the hot, dry summers; their growth occurs during our rainy season. Once established, many survive with rainfall alone. This is the opposite for non-native, ornamental landscapes that grow slowly, or not at all during winter, but require irrigation throughout the summer.

- Group plants with similar watering needs together, and install water-saving irrigation systems (drip, micro-sprayers) to apply the correct amount for each *hydro-zone* or plant grouping. Trees require deep irrigation and may need separate irrigation lines.
- Readjust your irrigation schedule for season and weather conditions. Turn off automatic systems when it's raining. Don't run sprinklers when the wind is blowing. Water deeply and only when needed. Water plants in the early morning or evening. Adjust irrigation systems to water soil, not concrete and pavement.
- Apply mulch (bark, compost, sawdust, gravel) to reduce evaporation from the soil surface and to control weeds.

For information about conserving water in landscapes and using native and drought tolerant plants, refer to plant databases, such as the one at beWaterwise.com. The website will also help you create a customized watering schedule for your yard. (See the *Resources Directory* insert for booklist and websites.)

*Not all native plants are dormant during summer: local riparian plants are the exception. They need water year round, as they are suited for waterways. Streamside vegetation, along dry or flowing waterways, is referred to as riparian.



Diana Ruiz

Fire-wise Landscaping

Create a minimum distance of 100 ft. of *defensible space*, a landscape that deprives fire of fuel. Use fire-resistant plants and remove plants that are highly volatile.

Zone 1: Lean, Clean and Green

Zone 1 is from 0-30 ft. out from buildings. (See diagram on prior page.)

Grow plants that are small or succulent, such as irrigated lawns or ground covers and low growing, high-moisture shrubs. If you use native plants, use those that can be trimmed back during the dry season or that stay small with little trimming. Native plants that tolerate summer watering (see native plant lists) should be kept well hydrated.*

- Keep plants well hydrated to help them resist fire. Well-trimmed and watered plants are less likely to ignite than desiccated plants that have a buildup of dry stems and leaves.
- Fire needs fuel to burn, so remove any unnecessary plant materials. Prune dead wood and clean the landscape of dead plants, dry leaves, dry brush, firewood, and combustibles.
- Strategically place hard surfaces in your landscape, such as concrete, brick, or stone patios, driveways, pools, walls, and non-flammable decks, to interrupt the spread of fire to buildings.

Zone 2: Reduced Fuel

Create the reduced fuel zone beginning 30 ft. from buildings and extending 100 ft. or more, depending on steepness of slope and type/density of vegetation.

- Selectively remove large shrubby plants and dense groupings. Thin overcrowded plants. Mow grasses and weedy vegetation while they are green.
- Carefully remove excess plants without disturbing the soil; mow instead of disc, to prevent erosion and invasion of non-native plants.
- In chaparral plant communities, after thinning, reduce old, woody growth by cutting plants to their bases every few years, during the summer dormancy. Young plant tissues have higher moisture content and are less flammable. The heavy pruning eliminates mature, highly flammable vegetation but maintains root systems to protect the soil from erosion.
- Low branches and plants growing under trees create “ladders” for fire to climb. Eliminate ladder fuels, plants that serve as a link between grass and treetops. Prune the lower branches from the lower 1/3 of trees and shrubs. For trees or shrubs taller than 18 feet, prune the lower branches 6 feet above the ground. Remove dead leaves, twigs, and branches.
- In general, remove shrubs that are growing below trees, unless there is a space between the top of the shrub to the lowest branch of the tree that is three times the height of the shrub.

Remove plants that ignite easily and burn hot, such as those with volatile oils (sages) and those that accumulate fine woody branches or many small, dry leaves (chamise). In Zone 1, remove highly volatile plants (partial list below). In Zone 2, remove or widely space volatile plant types, including:

Chamise, *Adenostoma fasciculata*
Brittlebrush, *Encelia farinosa*
California buckwheat, *Eriogonum fasciculatum*
White sage, *Salvia apiana*
Some Eucalyptus and Acacia

Black sage, *Salvia mellifera*
Woolly blue curls, *Trichostema lanatum*
Mountain blue curls, *Trichostema parishii*
Red Shank, *Adenostoma sparsifolium*
All Pine, Cypress, Juniper, and Cedar species.

*For best results with native plants, water on overcast days during summer and fall.

Create Space Between Plants

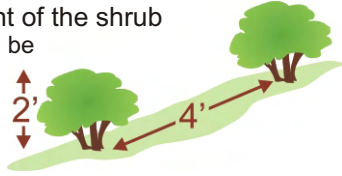
Shrubs

From edge of one shrub to the edge of the next.

Flat to mild slope

(0% to 20% slope)

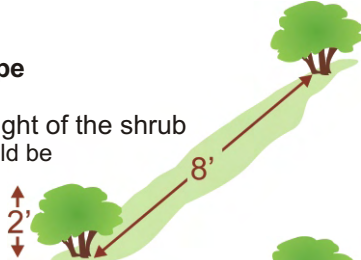
Two times (2x) the height of the shrub
(Two shrubs 2' high should be spaced 4' apart)



Mild to moderate slope

(20% to 40% slope)

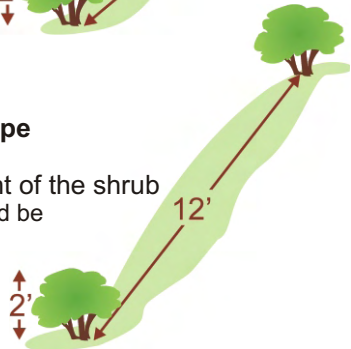
Four times (4x) the height of the shrub
(Two shrubs 2' high should be spaced 8' apart)



Moderate to steep slope

(greater than 40% slope)

Six times (6x) the height of the shrub
(Two shrubs 2' high should be spaced 12' apart)

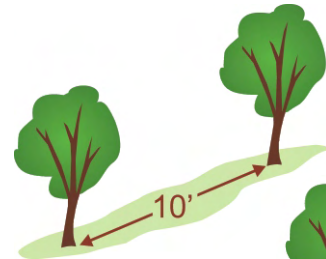


Trees

From edge of one tree canopy to the edge of the next.

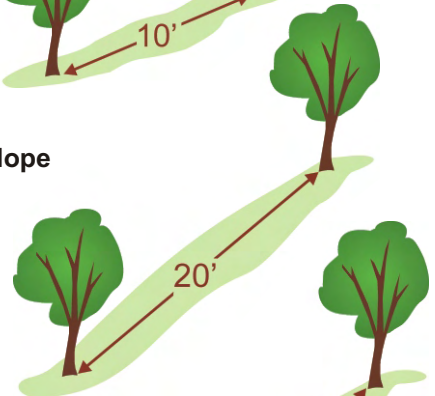
Flat to mild slope

(0% to 20% slope)



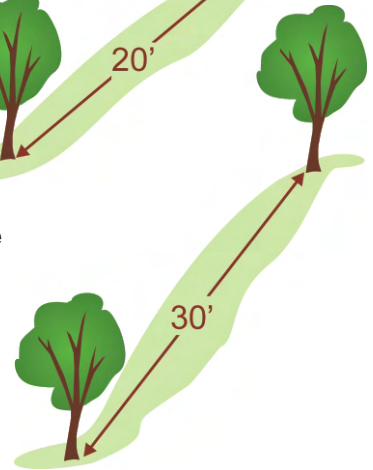
Mild to moderate slope

(20% to 40% slope)



Moderate to steep slope

(greater than 40% slope)



Horizontal clearance information from the California Department of Forestry and Fire Protection.

Prevent erosion and stabilize eroding areas.

If you have exposed soil surfaces, cover with mulch, and landscape as soon as possible. (Plants break the impact of falling rain, and their roots hold soil in place.) Eroding soil becomes sediment in runoff water, which pollutes waterways. Disturbed soil also encourages the growth of non-native weed species.

Retain thinned, deep-rooted native plants to anchor the soil and maintain slope stability. Generally, tall plants have deep, broad root systems. A goal of fire-wise landscaping is to maximize rooting depth while minimizing fuel volume.



Diana Ruiz

For site-specific advice, contact your local Resource Conservation District (RCD) or the USDA Natural Resources Conservation Service (NRCS). For recommendations of native grasses for erosion control, contact the California Native Grasslands Society. (See the *Resources Directory* insert for contact information.)

Native Plants for Defensible Space Landscaping in the Inland Empire

If you prefer to create a landscape of native, low water-use plants, use these lists to design a yard that is fire-wise. Maintenance is essential; dead and dry plant material must be removed during dry, summer dormancy. Some native plants cannot tolerate irrigation during their summer dormancy, so may die if watered too frequently. Some need only infrequent, deep watering to remain hydrated during the dry summer and fall. The low-growing, low-fuel volume plants are suitable for Zone 1 (0-30 ft.) and beyond. Larger shrubs and trees, for Zone 2 (30-100+ ft.), must be widely spaced (see diagram on previous page).

Shrubs for Zone 2

Shrubs that need or tolerate water during summer.

Carpenteria, *Carpenteria californica*
Western redbud, *Cercis occidentalis*
Toyon, *Heteromeles arbutifolia*
Nevin's barberry, *Mahonia nevinii*
Coffeeberry, *Rhamnus californica*
Golden current, *Ribes aureum*.
California wild rose, *Rosa californica*
Western bridalwreath, *Spiraea douglasii*
Squawbush, *Rhus trilobata*



UDSA-NRCS PLANTS Database

Coffeeberry

Shrubs that do not usually tolerate water during summer.

Low shrubs

Bladder pod, *Isomeris arborea*
Bush monkeyflower, *Mimulus aurantiacus*
Chaparral honeysuckle, *Lonicera subspicata*
Hollyleaf redberry, *Rhamnus illicifolia*
Redberry, *Rhamnus crocea*
Yellow bush-penstemon, *Keckiella antirrhinoides*



Paul Aigner

Yellow bush-penstemon

Tall, deep-rooted shrubs that stay green during summer.

Bigberry manzanita, *Arctostaphylos glauca*
Thick-leaved lilac, *Ceanothus crassifolius*
Buck brush, *Ceanothus cuneatus*
Hairy California lilac, *Ceanothus oliganthus*
Mountain mahogany, *Cercocarpus betuloides*
Laurel sumac, *Malosma laurina*
Scrub oak, *Quercus berberidifolia*
Sugarbush, *Rhus ovata*
Lemonade berry, *Rhus integrifolia*
California Flannel bush, *Fremontodendron californicum*



Arlee M. Montalvo

Sugarbush

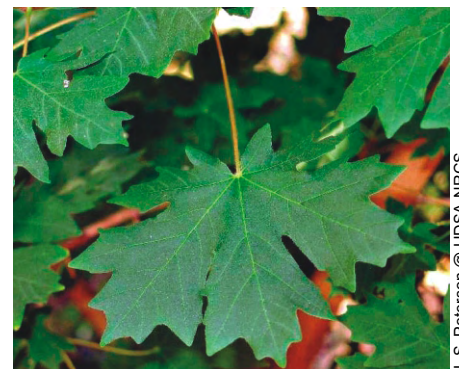
Trees for Zone 2

Trees that tolerate occasional water during summer.

Catalina cherry, *Prunus illicifolia* ssp. *Lyonii*
Coast live oak, *Quercus agrifolia*
Valley oak, *Quercus lobata*
Engelman oak, *Quercus engelmannii*

Trees that need water during summer.

Big leaf maple, *Acer macrophyllum*
White alder, *Alnus rhombifolia*
So. California walnut, *Juglans californica*
California sycamore, *Platanus racemosa*
California black oak, *Quercus kelloggii*
Canyon live oak, *Quercus chrysolepis*
Willows: *Salix laevigata*, *S. gooddingii*
California bay laurel, *Umbellularia californica*



J. S. Peterson @ UD SA-NRCS

Big leaf maple

Perennial herbs that tolerate or need water during summer

Yarrow, *Achillea millefolium*
 Columbine, *Aquilegia formosa*
 Douglas iris, *Iris douglasiana*
 Deer grass, *Muhlenbergia rigens*
 Calif. blue-eyed grass, *Sisyrinchium bellum*
 Meadow rue, *Thalictrum fendleri* var. *polycarpum*
 Yerba mansa, *Anemopsis californica*
 Coral bells, *Heuchera* ssp.
 Common monkey flower, *Mimulus guttatus*
 Scarlet bugler, *Penstemon centranthifolius*
 California goldenrod, *Solidago californica*
 Hedge nettle, *Stachys bullata*
 Slender sedge, *Carex praegracilis*
 Narrow-leaved milkweed, *Asclepias fascicularis*



Arlee M. Montalvo

Narrow-leaved milkweed

Succulents, Ground Covers, and Low Shrubs

Keep hydrated; if needed, water monthly during summer.

San Diego sedge, *Carex spissa*
 Wild lilac, *Ceanothus griseus* 'horizontalis'
 California fuchsia, *Epilobium canum* = *Zauschneria*
 Golden yarrow, *Eriophyllum confertiflorum*
 Lance-leaved live-forever, *Dudleya lanceolata*
 Chalk dudleya, *Dudleya pulverulenta*
 Parry's nolina, *Nolina parryi*
 Creeping sage, *Salvia sonomensis*
 Creeping snowberry, *Symphoricarpos mollis*
 Chaparral yucca, *Yucca whipplei* = *Hesperoyucca whipplei*
 Valley cholla, *Opuntia parryi*
 Coastal prickly pear, *Opuntia littoralis*



Arlee M. Montalvo

Chaparral yucca

Annuals or summer-dormant perennials

No need for water during summer. There is little, if any, plant material above ground to burn.

California poppy, *Eschscholzia californica*
 Larkspurs, delphinium, *Delphinium parryi*, *D. cardinale*
 Wild Canterbury-bell, *Phacelia minor*
 California figwort, *Scrophularia californica*
 Baby blue eyes, *Nemophila menziesii*
 Royal penstemon, *Penstemon spectabilis*
 Lupine, *Lupinus* species (*L. bicolor*, *L. succulentus*,
L. truncatus, *L. sparsiflorus*)



Arlee M. Montalvo

Baby blue eyes

Habitat Land Stewards

If you live near conservation easement land or a waterway, there are ways that you can help. Be observant of activities that might be harmful to your nearby habitat lands, or form a *habitat-watch* group in your neighborhood. Like a neighborhood-watch, property owners help look out for neighborhood habitat and waterways, report illegal activity, and help educate neighbors about human impacts. For help forming a *habitat-watch* group, contact your local Resource Conservation District or the Riverside Land Conservancy.



This publication was developed by the Riverside-Corona Resource Conservation District. www.RCRCD.com

1-07

All programs and services are provided without regard for race, religion, gender, national origin, and handicap.

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Helpful telephone numbers and links:

RIVERSIDE COUNTY WATER AGENCIES

City of Banning	(951) 922-3130
City of Beaumont/Cherry Valley	(951) 845-9581
City of Blythe	(760) 922-6161
City of Coachella	(760) 398-3502
City of Corona	(951) 736-2263
City of Hemet	(951) 765-3710
City of Norco	(951) 270 5607
City of Riverside Public Works	(951) 351-6140
City of San Jacinto	(951) 654-4041
Coachella Valley Water District	(760) 398-2651
Desert Water Agency (Palm Springs)	(760) 323-4971
Eastern Municipal Water District	(951) 928-3777
Elsinore Valley Municipal Water District	(951) 674 3146
Elsinore Water District	(951) 674-2168
Farm Mutual Water Company	(951) 244-4198
Idyllwild Water District	(951) 659-2143
Indio Water Authority	(760) 391-4129
Jurupa Community Services District	(951) 685-7434
Lee Lake Water	(951) 658-3241
Mission Springs Water	(760) 329-6448
Rancho California Water District	(951) 296-6900
Ripley, CSA #62	(760) 922-4951
Riverside Co. Service Area #51	(760) 227-3203
Rubidoux Community Services District	(951) 684-7580
Valley Sanitary District	(760) 347-2356
Western Municipal Water District	(951) 789-5000
Yucaipa Valley Water District	(909) 797-5117

REPORT ILLEGAL STORM DRAIN DISPOSAL

1-800-506-2555 or e-mail us at fcnpdes@rcflood.org

- Riverside County Flood Control and Water Conservation District www.rcflood.org

Online resources include:

- California Storm Water Quality Association www.casqa.org
- State Water Resources Control Board www.waterboards.ca.gov
- Power Washers of North America www.thepwna.org

Stormwater Pollution

What you should know for...

Outdoor Cleaning Activities and Professional Mobile Service Providers



Storm drain pollution prevention information for:

- Car Washing / Mobile Detailers
- Window and Carpet Cleaners
- Power Washers
- Waterproofers / Street Sweepers
- Equipment cleaners or degreasers and all mobile service providers

Do you know where street flows actually go?

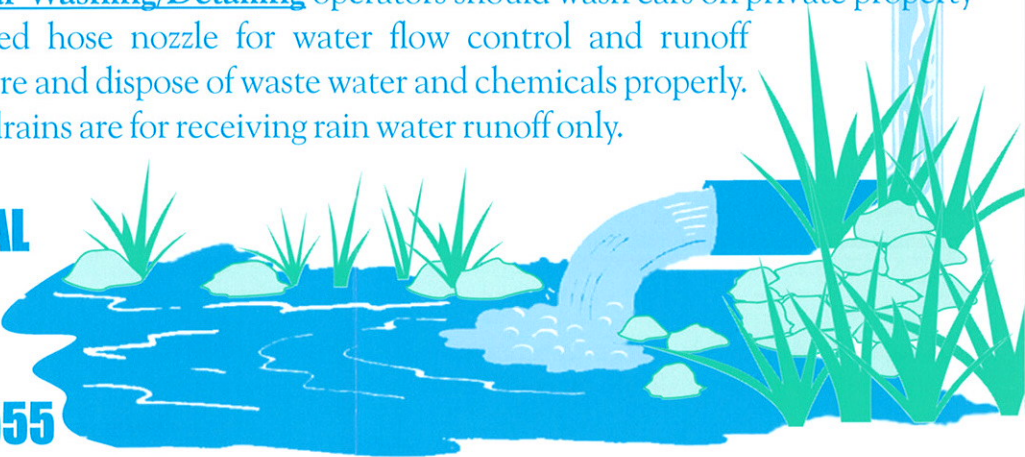
Storm drains are NOT connected to sanitary sewer systems and treatment plants!



The primary purpose of storm drains is to carry rain water away from developed areas to prevent flooding. Pollutants discharged to storm drains are transported directly into rivers, lakes and streams. Soaps, degreasers, automotive fluids, litter and a host of materials are washed off buildings, sidewalks, plazas and parking areas. Vehicles and equipment must be properly managed to prevent the pollution of local waterways.

Unintentional spills by mobile service operators can flow into storm drains and pollute our waterways. **Avoid mishaps.** Always have a **Spill Response Kit** on hand to clean up unintentional spills. Only emergency **Mechanical** repairs should be done in City streets, using drip pans for spills. **Plumbing** should be done on private property. Always store chemicals in a leak-proof container and keep covered when not in use. **Window/Power Washing** waste water shouldn't be released into the streets, but should be disposed of in a sanitary sewer, landscaped area or in the soil. Soiled **Carpet Cleaning** wash water should be filtered before being discharged into the sanitary sewer. Dispose of all filter debris properly. **Car Washing/Detailing** operators should wash cars on private property and use a regulated hose nozzle for water flow control and runoff prevention. Capture and dispose of waste water and chemicals properly. Remember, storm drains are for receiving rain water runoff only.

REPORT ILLEGAL STORM DRAIN DISPOSAL 1-800-506-2555



Help Protect Our Waterways!

Use these guidelines for Outdoor Cleaning Activities and Wash Water Disposal

Did you know that disposing of pollutants into the street, gutter, storm drain or body of water is **PROHIBITED** by law and can result in stiff penalties?

Best Management Practices

Waste wash water from Mechanics, Plumbers, Window/Power Washers, Carpet Cleaners, Car Washing and Mobile Detailing activities may contain significant quantities of motor oil, grease, chemicals, dirt, detergents, brake pad dust, litter and other materials.

Best Management Practices, or BMPs as they are known, are guides to prevent pollutants from entering the storm drains. *Each of us* can do our part to keep storm water clean by using the suggested BMPs below:

Simple solutions for both light and heavy duty jobs:

Do...consider dry cleaning methods first such as a mop, broom, rag or wire brush. Always keep a spill response kit on site.

Do...prepare the work area before power cleaning by using sand bags, rubber mats, vacuum booms, containment pads or temporary berms to keep wash water away from the gutters and storm drains.

Do...use vacuums or other machines to remove and collect loose debris or litter before applying water.

Do...obtain the property owner's permission to dispose of *small amounts* of power washing waste water on to landscaped, gravel or unpaved surfaces.

Do...check your local sanitary sewer agency's policies on wash water disposal regulations before disposing wash water to the sewer. (See list on reverse side)

Do...be aware that if discharging to landscape areas, soapy wash water may damage landscaping. Residual wash water may remain on paved surfaces to evaporate. Sweep up solid residuals and dispose of properly. Vacuum booms are another option for capturing and collecting wash water.

Do...check to see if local ordinances prevent certain activities.

Do not let...wash or waste water from sidewalk, plaza or building cleaning go into a street or storm drain.



Report illegal storm drain disposal,
Call Toll Free
1-800-506-2555

Using Cleaning Agents

Try using biodegradable/phosphate-free products. They are easier on the environment, but don't confuse them for being toxic free. Soapy water entering the storm drain system can impact the delicate aquatic environment.



When cleaning surfaces with a *high-pressure washer* or *steam cleaner*, additional precautions should be taken to prevent the discharge of pollutants into the storm drain system. These two methods of surface cleaning can loosen additional material that can contaminate local waterways.

Think Water Conservation

Minimize water use by using high pressure, low volume nozzles. Be sure to check all hoses for leaks. Water is a precious resource, don't let it flow freely and be sure to shut it off in between uses.

Screening Wash Water

Conduct thorough dry cleanup before washing exterior surfaces, such as buildings and decks *with loose paint*, sidewalks or plaza areas. Keep debris from entering the storm drain after cleaning by first passing the wash water through a "20 mesh" or finer screen to catch the solid materials, then dispose of the mesh in a refuse container. Do not let the remaining wash water enter a street, gutter or storm drain.

Drain Inlet Protection & Collection of Wash Water

- Prior to any washing, block all storm drains with an impervious barrier such as sandbags or berms, or seal the storm drain with plugs or other appropriate materials.
- Create a containment area with berms and traps or take advantage of a low spot to keep wash water contained.
- Wash vehicles and equipment on grassy or gravel areas so that the wash water can seep into the ground.
- Pump or vacuum up all wash water in the contained area.

Concrete/Coring/Saw Cutting and Drilling Projects

Protect any down-gradient inlet by using dry activity techniques whenever possible. If water is used, minimize the amount of water used during the coring/drilling or saw cutting process. Place a barrier of sandbags and/or absorbent berms to protect the storm drain inlet or watercourse. Use a shovel or wet vacuum to remove the residue from the pavement. Do not wash residue or particulate matter into a storm drain inlet or watercourse.

Guidebook for Living in the **San Jacinto Watershed**



A Guide for Residents of the
San Jacinto Watershed and Surrounding Communities

Guidebook FOR LIVING IN THE SAN JACINTO WATERSHED PARTNERSHIPS

The San Jacinto River Watershed Council recognizes the following organizations and agencies as partners in creating *The Guidebook for Living in the San Jacinto Watershed, A Guide for Residents of the San Jacinto Watershed and Surrounding Communities*. From providing funding to lending technical expertise, these organizations have contributed to preserving the natural resources of the San Jacinto Watershed:

Bureau of Reclamation, California Environmental Protection Agency Environmental Justice Small Grants Program • City of Lake Elsinore • Eastern Municipal Water District • Elsinore Valley Municipal Water District • Lake Elsinore and San Jacinto Watersheds Authority • Lewis Planned Communities and the Garrett Group • Milk Producers Environmental Fund • Riverside County Farm Bureau • Riverside County Flood Control and Water Conservation District, Santa Ana Watershed Association, Santa Ana Watershed Project Authority • Soboba Band of Luiseño Indians and Western Municipal Water District.

The San Jacinto Guidebook is based upon the Arroyo Seco "Living Lightly in Our Watersheds: A Guide for Residents of Arroyo Seco and surrounding communities." The Arroyo Seco book was based upon earlier concepts from the Topanga Watershed Committee and the Malibu Creek Advisory Council. We wish to thank the Topanga Watershed Committee, the Malibu Creek Watershed Advisory Council, and the Arroyo Seco Watershed Committee.

Adaptation of text reprinted from the "Living Lightly In Our Watersheds Guide" with permission from the Arroyo Seco Watershed Committee.

This book is also available in Spanish. Please contact the San Jacinto River Watershed Council for additional information.

Prepared by:
The San Jacinto River Watershed Council

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About

The San Jacinto River Watershed Council

The San Jacinto River Watershed Council (SJRWC) is a nonprofit organization dedicated to providing educational, scientific, and technical assistance that will help sustain, restore, and enhance the natural resources of the San Jacinto River basin while promoting long-term social and economic vitality to the region. Water is a critical natural resource for our future and for all future generations.

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The San Jacinto River Watershed Council is proud to provide this Guidebook for your use. It would not have been possible except for the financial generosity of the following sponsors:

Bureau of Reclamation (BR)
 Cal EPA Environmental Justice Small Grants Program
 City of Lake Elsinore
 Eastern Municipal Water District (EMWD)
 Elsinore Valley Municipal Water District (EVMWD)
 Lake Elsinore and San Jacinto Watersheds Authority (LESJWA)
 Lewis Planned Communities and the Garrett Group
 Milk Producers Environmental Fund
 Riverside County Farm Bureau (RCFB)
 Riverside County Flood Control and Water Conservation District
 Santa Ana Watershed Association (SAWA)
 Soboba Band of Luiseño Indians.
 Western Municipal Water District (WMWD).



Welcome to

The Guidebook for Living in the
San Jacinto Watershed

Dear Friends,

There's a spot along the Ernie Maxwell Scenic Hiking Trail, just east of Idyllwild, where much of the San Jacinto River Watershed may be taken in at a single glance. Here in the shadow of Tahquitz Peak, the mountains, ridges and hilltops that form the upper boundaries of our watershed surround you. Lake Hemet and Garner Valley lie just south. Below the Lake lies the canyon of the south fork of the San Jacinto River winding northwest toward the Soboba Indian Reservation, the Badlands and that ephemeral jewel, Mystic Lake. Along the trace of the Canyon and just west of Mystic Lake are the dairy lands and the San Jacinto Wildlife Area, one of the best indicators of the health of our watershed. Further west and just beyond our view lie Canyon Lake and Lake Elsinore, where much of how we all live is reflected in the quality of those aquatic environments.

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These stops along the energy highway that comprise our watershed are but a glimpse of the real complexity that underlies the environment in which we all live and work. It's the droplets of water, particles of soil, molecules of oxygen, photons of sunlight, bacteria, insects, flowering plants, birds, mountain lions and all of us – all are related, connected by lifelines and knotted together in a network. We now better understand that when we work together locally for environmental quality, the integrity of the network can be maintained and we can achieve stability, the most fundamental property of a functioning watershed and sustainable communities.

And we have come together: citizens, local, state and federal agencies as members of the non-profit San Jacinto River Watershed Council to coordinate efforts and share resources to develop and implement watershed management strategies that will make western Riverside County a great place to live and work.

This booklet, Guidebook for Living in the San Jacinto Watershed, was developed to inform you of the work of all of our members, what you can do to help reduce pollution and conserve resources, and how you can become involved in and support the work of the Council.

Enjoy!!

Jim Gilmore, President
San Jacinto River Watershed Council



County of Riverside



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David P. Stokovich
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SUPERVISOR BOB BUSTER
FIRST DISTRICT

LAKE ELSINORE OFFICE:
2499 E. Lakeshore Drive
Lake Elsinore, CA 92530
(951) 471-4270
Fax (951) 471-4288

Wendy Kalk

Dear Friends of the San Jacinto River:

Among the many reasons to reside in or visit Riverside County is the high quality of life available to an active population. Within that portion of just the San Jacinto River Watershed, the variety of activities offered takes a lifetime to enjoy fully. You can hike high in the cool mountains. You can water-ski, fish or sail on several lakes. You can tour public gardens or grow your own flower and herb gardens year-round. You can be as active or passive as you prefer.

The San Jacinto River Watershed has it all. The best way to enjoy your lifestyle is to "live lightly" in our communities. That's what this guidebook offers you—opportunities for enjoyment and the obligation to be part of the conservation ethic that reduces pollution, keeps our air and water clean, and endorses our priority to maintain bountiful green space. We can all do our parts to ensure that the watershed will be a valued destination for new generations.

Many individuals from private, governmental and volunteer organizations contributed their expertise to this guidebook. We know you'll find this guidebook helpful in understanding the San Jacinto River Watershed and appreciating what it has to offer.

Sincerely,

Bob Buster, Chairman
Supervisor, First District

Jeff Stone
Supervisor, Third District

Marion Ashley
Supervisor, Fifth District

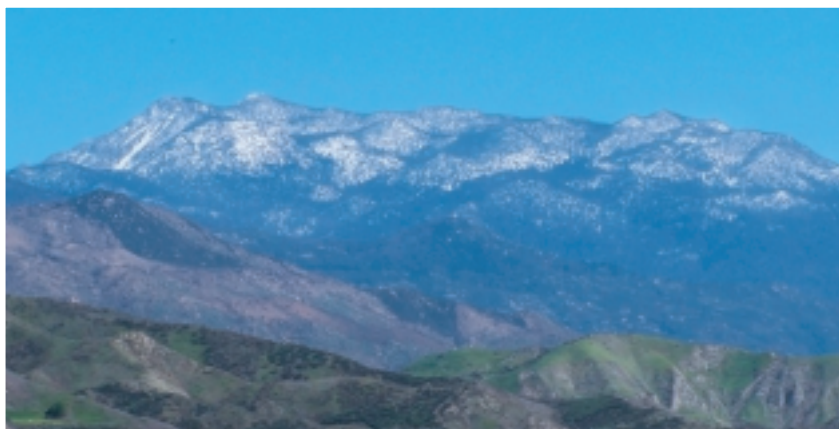
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Imagine THE SAN JACINTO WATERSHED

as a clean and protected environment that is the source of community pride. Parks, bicycle trails, places to walk under a green canopy of trees, clean air, water and wildlife habitat are all a part of what the future holds for the watershed.

With your support, the vision is becoming a reality.



What is a Watershed?

A watershed is an area of land from which all rainfall drains to a common point. All land is part of a watershed. As rainwater and melting snow run downhill, they carry sediment and other materials into our streams, lakes and groundwater.

The San Jacinto Watershed upstream of Canyon Lake covers 718 square miles in the western half of Riverside County. There are two main watercourses in the watershed, San Jacinto River and Salt Creek.

The San Jacinto drains the western slopes of the San Jacinto Mountains and flows through the communities of San Jacinto and Perris before entering Canyon Lake. Salt Creek is tributary to the San Jacinto River and flows into Canyon Lake from the east. Discharges from the Canyon Lake Dam flow southwest in the San Jacinto River to Lake Elsinore and, then flows northwest in Temescal Wash to the Santa Ana River, which flows to the Pacific Ocean.





Section 1

OUR WATERSHED

The earth's surface acts as an amazing sponge and filter, allowing moisture, minerals, and organic materials to be used and reused by all life. In developing our cities and communities, we have changed the underlying conditions of the land on which they are built. Where once water, air, and nutrients could enter the soil and circulate freely, we now have increasingly larger areas of hard surfaces that rapidly concentrate rain and pollutants. We have also introduced plants and animals into areas where they were not previously found, thus dramatically changing the make-up of our region's biological communities. Learning to work with the natural cycles that have sustained the earth will help ensure that food, clean air, and water, and beautiful green open space will be available to future generations.

"To keep every cog and wheel is the first precaution of intelligent tinkering."

– Aldo Leopold

Section 1 OUR WATERSHED

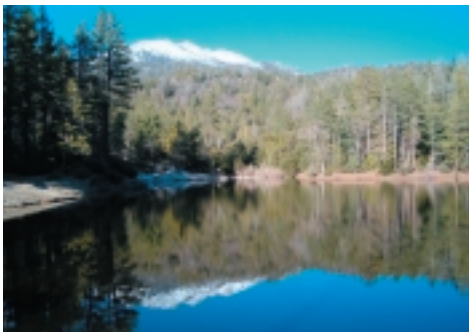
A Watershed Approach

People working together to protect public health and the environment - community by community, watershed by watershed.

*Carol M. Browner, Administrator
U.S. Environmental Protection Agency
June 1996*

Rainfall travels from the mountains to the ocean. Water, air, plants and animals move freely across political boundaries. Strategies for improving water quality and availability, increasing flood protection, protecting our lakes and preserving open space for recreation and wildlife are more effective when pursued collectively over a whole watershed. Agencies, organizations, politicians, and individuals should cross over city lines, joining together with neighbors in their watersheds to work toward these important goals. This watershed-based approach not only promises better and more cost-effective results, it also serves to unite neighborhoods, further enriching our lives.

To this end, The San Jacinto River Watershed Council has produced this environmental guide, *"Guidebook for Living in the San Jacinto Watershed,"* for communities in and around the San Jacinto watershed.



Foster Lake



Mystic Lake after a large storm event

CONTACT

FOR MORE INFORMATION ON WATERSHEDS:

► The San Jacinto River Watershed Council-
www.sawpa.org/sjwrc/

► LESJWA-
www.mywatersheds.com

The San Jacinto Watershed

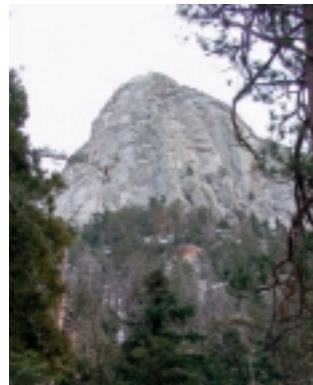
The San Jacinto Watershed is a 780 square mile watershed with diverse and unique geographical, cultural, and ecological significance. Let's take a journey (see map page vi) to better understand how water flows through our watershed.

At the top of our watershed, in the San Jacinto Mountain communities of Idyllwild, Pine Cove Fern Valley and Garner Valley, rain and snow fall on steep, rocky slopes. Water and sediments wash from the slopes, and move down the mountain and canyons into the headwaters of the San Jacinto River. Lake Hemet, on the South Fork of the river, captures significant quantities of mountain runoff. In wetter years, Lake Hemet overflows, drastically increasing the flow in the river as it exits the mountains into the San Jacinto Valley near the community of Valle Vista.

East of the city of San Jacinto, in the rolling foothills of the San Jacinto Mountains, is the 7,000 acre Soboba Indian Reservation, home of the Soboba Band of Luiseño Indians. The reservation extends into the broad level floodplain at the southeast edge of the San Jacinto Valley. Two other mountain streams, Indian Creek and Poppet Creek, flow through the reservation. Water is and always has been a cornerstone of the Soboba band.

The San Jacinto Valley holds a rich and diverse agricultural history. On the south end of the valley are several thousand acres of citrus orchards located in the foothills near Bautista Creek. On the northern half of the San Jacinto Valley the San Jacinto River flows through a large dairy and agricultural community. In the early 1900's, farmers co-opted in building a leveed diversion channel to keep the river from flooding into a large depression at the north edge of the valley known as Mystic Lake. During heavy storm events the levees are overwhelmed, and the river breaks out to flow into Mystic Lake.

Today, Mystic Lake is part of the 19,100 acre San Jacinto Wildlife Area owned by the California



The 8,828-foot Tahquitz Peak, a granite dome in the San Jacinto Wilderness is a favorite with climbers.

3



Soboba Pow wow



Agriculture in the San Jacinto Valley



Section 1 OUR WATERSHED

Department of Fish and Game. This conservation area is comprised of the 9,100 acre Potrero Unit, on the Potrero Creek Drainage east of Lamb Canyon Road, and the 10,000 acre Davis Road Unit, which surrounds Mystic Lake in the northern San Jacinto Valley. When Mystic Lake fills and overflows just east of Lake Perris, water flows into the lower reach of the San Jacinto River, which cuts southwesterly across the Perris Valley. Urban runoff from Moreno Valley, Perris, and the communities of Lakeview, Nuevo, Romoland adds to the flow of the water in the river as it makes its way westward toward Canyon Lake.

Salt Creek, a major San Jacinto River tributary, collects runoff from the southern portion of our watershed which includes Hemet, San Jacinto, and the Winchester, Menifee Valley, and Sun City communities. These flows are conveyed to the east bay of Canyon Lake. Runoff from communities near Quail Valley also flows into Canyon Lake.

Canyon Lake, surrounded by a private gated community, flows over its dam during moderate and wet storm seasons. Spillway flows then traverses a short reach of the San Jacinto River within Railroad Canyon until they reach the river's final destination - Lake Elsinore. Lake Elsinore, with the spectacular Cleveland National Forest as a mountain backdrop, is the largest natural freshwater lake in Southern California.

On average, every 7 to 14 years, large storm events occur on our watershed. Spectacular views of the river result, but also flooding. Sediment and pollution, if not controlled, move down its course, seriously impacting the health of the downstream lakes. It is with this in mind that we remind everyone to treat this naturally fragile watershed system with care and respect as you enjoy its miles of ever changing beauty.



Duck pond on the San Jacinto Wildlife area.



Railroad Canyon Lake Dam, built in 1928, created Canyon Lake, a water supply reservoir.



Lake Elsinore with the Cleveland National Forest as a mountain backdrop.




Parks and Public Space

The quality of life for the residents who call the San Jacinto watershed their home relies upon the presence of beautiful, peaceful parks, and abundant open space.

WHAT YOU CAN DO

to keep our parks safe and beautiful:

-  Keep your dogs on a leash and clean up after them.
-  Do not feed the wildlife. Human food is not healthy for birds, squirrels, and other animals.
-  Take only pictures, leave only footprints.
-  No fires in undesignated areas. Follow all other local rules and regulations.
-  If you live near an open, green space, park or hillside, keep your cat indoors. Chances are they will live longer and the birds, bugs and lizards will thank you!

Slow down and take some time to get to know and enjoy the treasures of our region. See the fold-out map, page vii.



Fishing at Lake Perris.



5

Lake Perris State Recreation Area and the San Jacinto Wildlife area are two wildlife treasures in the upper watershed full of outdoor activities for you and your family.



Section 1 OUR WATERSHED

Environmental Challenges







Stormwater Pollution

Trash, bacteria, pesticides, fertilizers and oil wash into streets and storm drains and contaminate our streams, groundwater, and lakes. Fertilizers and other non-natural sources of nutrients such as grass clippings stimulate the growth of plants, disrupt local water- and land-based communities of plants, and cause severe impairment of our lakes. Each person, simply by changing a few everyday habits, can effect positive change across the watershed.



WHAT YOU CAN DO

to reduce stormwater pollution:

-  Pick up trash and litter around your yard and home.
-  Sweep rather than hose down driveways.
-  Reduce use of toxic chemicals in and around your home and use only as directed on the label.
-  Dispose of unwanted household hazardous wastes, antifreeze, batteries, oil and paint at official collection stations. Call (800) 506-2555.
-  Clean up pet waste.
-  Wash your car at a car wash to keep detergents out of the streets.
-  Report illegal dumping and stormwater pollution to (800) 506-2555.



Why clean up after your pet?

Pet waste that is left exposed to the elements eventually washes into the storm drains, channels and creeks and down to the lakes .

Pet waste degrades the environment and water quality by:

- Increasing nitrogen and phosphorus in the water, resulting in excessive algae growth.
- Increasing the amount of bacteria and viruses in the water.
- Making neighborhoods and parks less healthy and enjoyable for all users.



PLEASE CLEAN UP AFTER YOUR PET!



Invasive Plants

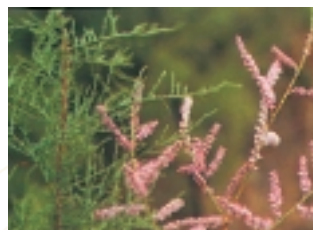
Ever since Spanish colonial times, mankind has brought foreign plants, "exotics," to the New World, sometimes by accident, but more usually as fodder or ornament. In our watershed, many drought-tolerant ornamentals are well-behaved, but some escape our yards and create problems. Once growing in the wild, all of them, however attractive, such as Scotch broom in the mountains and fountain grass on the roadside, crowd out native plants to which our native birds and insects are adapted.

Other plants not only out-compete the natives, but do further damage. Invasive annual grasses grow quickly and dry to tinder, making meadows and scrubland more prone to fire. Eucalyptus grow fast, are brittle, extremely flammable and prone to disease, as are oleanders. Castor-oil plant is poisonous, and tocolote has many irritating burrs.

Possibly the worst invasives in the watershed are the giant reed, Arundo, and the Tamarisk tree. These water-thirsty foreigners deplete the water table and form monoculture stands where no bird sings. There is a current effort underway – at a cost of millions of dollars – to eradicate Arundo from the Santa Ana and San Jacinto watersheds.



A very invasive plant. Arundo Donax






Tamarisk

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WHAT YOU CAN DO

to control invasive plants:

-  Get to know the plants that are problematic in your area and avoid using them.
-  Use native plants from our local area. (See page 15 for species.)
-  When you see problem exotics for sale in the nurseries, tell them why you want natives instead.

DID YOU KNOW?

The National Parks Conservation Association considers the invasion of national parks by non-native species among the most significant causes of biodiversity loss in parks.



Section 2

GREEN LIVING

In southern California's gentle weather we are able to live and enjoy much of our lives outdoors. Many of our homes are designed to take full advantage of this gift, with living areas brought outside into the garden and the outdoors carefully framed for viewing from indoors. In the San Jacinto watershed, we share a rich cultural diversity and various lifestyles—mountain communities, rural agriculture influences, and growing urban communities. What a perfect setting in which to consider how the environment is affected daily by the choices we make in building and maintaining our homes, gardens, and style of living.

"Start by doing what's necessary, then do what's possible and suddenly you are doing the impossible."

St. Francis of Assisi

Section 2 GREEN LIVING






Water Conservation

An effective way to minimize environmental damage and promote a safe and reliable water supply is through conservation. This is particularly important since over half of our drinking water is brought in from distant places such as northern California and the Colorado River. Water conservation efforts add up, reducing our need to import water and increasing the availability and quality of local water resources. Water-conserving appliances and plumbing fixtures save water *and* money.



WHAT YOU CAN DO

to conserve household water:

-  Replace high volume flush toilets. *Savings:* up to 8,500 gallons per year for the average single-family household.
-  Use a low-flow showerhead. *Savings:* more than 14,600 gallons a year per household.
-  When it's time for a new washing machine or dishwasher, buy a water-saving model. Water-wise machines use 1/3 less water and half the energy, and require less detergent and washing additives.
-  Fix all leaky faucets and plumbing joints.
-  Run your dishwasher and clothes washer only when fully loaded.

Outdoor Water Conservation

Our yearly rainfall averages from fifteen to twenty inches but can be as little as eight inches. Most rain falls between October and March with long, hot, dry summers. This amount and seasonal cycle of moisture simply cannot sustain most traditional landscapes and lawns. According to the Western Municipal Water District, more than 60% of residential water use is for outdoor landscaping and pools in the inland region.

CONTACT

ASK YOUR CITY OR WATER PROVIDER FOR ADDITIONAL CONSERVATION TIPS AND REBATES

- ▶ Eastern Municipal Water District, www.emwd.org
- ▶ Elsinore Valley Municipal Water District www.evmwd.com
- ▶ Idyllwild Water District www.idyllwildwater.org
- ▶ Lake Hemet Municipal Water District, www.lhmwd.org
- ▶ Nuevo Water Company 951-928-1832
- ▶ Western Municipal Water District, www.wmwd.org www.bewaterwise.com





WHAT YOU CAN DO

to conserve landscape water:

- ☀ Consider using a weather-based irrigation controller that irrigates according to historic or real-time weather patterns in your neighborhood.
- ☀ During the winter, turn your controller off and water only when winter rains are infrequent.
- ☀ During the hotter and drier seasons, water less frequently and more deeply to encourage stronger, healthier plants.
- ☀ Check for broken and misaligned sprinkler heads often. This problem causes excessive runoff and landscape failures.
- ☀ Lawns are very thirsty. Use them for functional areas only.
- ☀ Consider using native plants best adapted to the southern California climate. (see page 15).
- ☀ Use drip and low-volume irrigation for garden beds and pots. Group plants with similar water needs.
- ☀ Sweep paths and driveways rather than using a hose.
- ☀ Place mulch and clippings from your own garden around your plants and trees to reduce evaporation and keep the roots cooler.
- ☀ Do not cut your lawn too low – taller grass reduces evaporation.
- ☀ Water your yard at cooler and less windy times of the day to reduce water loss through evaporation. Early morning is best.



Use drip irrigation.



11

The beautiful green lawn in front of EVMWD's office is artificial turf. No water required! A great way to conserve water.



Section 2 GREEN LIVING

Landscaping

Another important way to help the environment and save water is by creating a 'California-friendly' yard. There are many drought-tolerant plants that will help with the latter, but amongst these, California natives from local stock have several advantages.

WHAT YOU CAN DO

- 🌱 Good habitat for native birds, butterflies and other animals – food, water, shelter and nest materials – is best provided by species that have evolved together. Welcome a wide variety of local wildlife by using native plants.
- 🌱 Carefully chosen native plants require little or no supplemental water once established. They can co-exist with local pests, so that they seldom need chemical treatments or fertilizer, both of which can pollute. Chemical compounds can endanger your family's health, as well as killing beneficial insects and birds, and cause stormwater pollution.
- 🌱 Native plants require only an occasional clean-up pruning to thrive.
- 🌱 Gardening with natives may help support declining local communities if the plants selected are grown from local parent stock – the specialist nurseries mentioned on page 13 can help you with your selection. California has more rare and threatened species than any other state except Hawaii.

Why Use Natives?

Our sense of belonging increases with an appreciation for the remarkable adjustments the native plants and animals have made to the home we share. The colors of the mountains, slopes and valley – the deep green of the forests, the grey-greens of the sages and the grey-brown of the rocks – all contribute to a special sense of place.



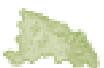
Tortoiseshell Butterfly on Sunflower.



Bee Pollinating Plants.



Toyon



Compared to natives, exotic plants (from outside our region) have not evolved with our native birds, butterflies and insects. As a result, they can be devastated by pests or disease or, conversely, spread out of control and reduce native diversity. They do not provide the natural food sources that the native plants do for our local insects, and, if these decline, we lose the building blocks of the local food web, causing in turn the decline of the many local birds which depend on them.

Other Things You Can Do:

- Use permeable surfaces for walkways, patios and driveways that let water soak into the ground; this replenishes the water table and reduce runoff.
- Reduce green waste by choosing plants that will not grow larger than the amount of space you have for them.
- Use clippings from your own garden as use a mulch or in your own compost pile.



Ceanothus, California Lilac



Fremontia



Holly-leaved Cherry

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CONTACT

► California Native Plant Society www.cnps.org

► Rancho Santa Ana Botanic Garden Claremont
(909) 625-8767
www.rsabg.org

► UC Riverside Botanic Gardens
Riverside (951) 787-4650
www.gardens.ucr.edu

► Mockingbird Nurseries, Inc.
Riverside (951) 780-3571

► Tree of Life Nursery
San Juan Capistrano
(949) 728-0685
www.treeoflifenuresery.com

► Western Municipal Water District Landscapes Southern California Style (951) 789-5987



Section 2 GREEN LIVING

Trees and Urban Forestry

Why are our cities so hot? The average temperatures in cities can be between 2 and 10 degrees hotter than the surrounding countryside. This phenomenon is called the urban heat island effect and is due to the replacement of plants with asphalt, concrete, and building surfaces that absorb and store heat. Planting trees is an effective way to help beautify and cool our cities and homes, reducing our dependence on fossil fuels.

Trees improve air quality by collecting and filtering dust and other pollution particles, absorbing carbon dioxide, and releasing oxygen. They improve water quality and reduce flooding by intercepting rainfall and increasing its absorption into the ground.



WHAT YOU CAN DO

to have healthy trees

- ☼ Plan ahead carefully when planting trees, considering the mature size of the tree.
- ☼ Allow leaf litter to accumulate and even add more mulch to the surrounding soil, but do not let it pile up against the trunk, which can lead to disease.
- ☼ Loosen ties and stakes as soon as you plant, and remove them as soon as possible.
- ☼ Protect the trunk from damage, such as from a weed trimmer.
- ☼ Never cut main branches or the central stem back to stubs. This practice, though common in our area, severely stresses and can injure a tree.



Trees improve the health of our watershed. Trees increase groundwater infiltration, filter particulates from the air, shade our homes and provide many other benefits.

California Native Plants for Your Home Garden:

COMMON NAME

SCIENTIFIC NAME

Trees

Western Redbud	<i>Cercis occidentalis</i>
Western Sycamore	<i>Platanus racemosa</i>
Coast Live Oak	<i>Quercus agrifolia</i>
Elderberry	<i>Sambucus mexicana</i>
California Bay	<i>Umbellularia californica</i>
Mesa Oak	<i>Quercus engelmannii</i>

Shrubs

Chamise	<i>Artemisia californica</i>
Manzanita	<i>Arctostaphylos species eg. glauca</i>
California Lilac	<i>Ceanothus species eg. crassifolius</i>
California Sunflowers	<i>Encelia californica or E. farinosa</i>
Fremontia, Flannel Bush	<i>Fremontodendron californica</i>
Toyon	<i>Heteromeles arbutifolia</i>
Holly-leaved Cherry	<i>Prunus ilicifolia</i>
Coffeeberry	<i>Rhamnus californica</i>
Lemonadeberry	<i>Rhus integrifolia</i>
Sugar Bush	<i>Rhus ovata</i>

Perennials and Groundcovers

Manzanita (low)	<i>Arctostaphylos eg. uva-ursi</i>
California Lilac (low)	<i>Ceanothus eg. 'Emerald Carpet'</i>
California Fuchsia	<i>Epilobium canum or Zauschneria californica</i>
Wild Buckwheat	<i>Eriogonum fasciculatum</i>
Coral Bells	<i>Heuchera species</i>
Douglas Iris	<i>Iris douglasiana</i>
Sticky Monkeyflower	<i>Mimulus aurantiacus</i>
Deer Grass	<i>Muhlenbergia rigens</i>
Showy Penstemon	<i>Penstemon spectabilis</i>
California Sages	<i>Salvia apiana or S. mellifera</i>
Wild Grape	<i>Vitis californica</i>

Annuals

California Poppy	<i>Eschscholzia californica</i>
Arroyo Lupine	<i>Lupinus succulentus</i>
Desert Bells	<i>Phacelia minor</i>
Chia	<i>Salvia columbariae</i>

Note: Most of these thrive in Inland Empire sun and with little supplemental water, though many will look better in summer with monthly irrigation in the early morning. Take care, however, some nursery-bred varieties of these species may need regular garden water.












Section 2 GREEN LIVING

Fire Safety and Fuel Modification

In southern California, fires are always a serious concern. If you live in a canyon or on a slope, the risk is even higher, especially if your property is adjacent to natural space. Be sure to follow local fire department clearance regulations and safety practices.

WHAT YOU CAN DO

to reduce fire risk:

-  Keep brush clear around all structures.
-  Keep roof and gutters clear of leaves and plants.
-  Trim trees away from your roof or chimney.
-  Branches should not come within 10' of the house.
-  Space trees and shrubs that are near structures.
-  Prune tall trees to remove branches near the ground.
-  Water plants adequately; water trees and shrubs deeply every 20-30 days during fire season.
-  Stack firewood outside.
-  Plant fire-resistant plants and trees. Plant a deciduous tree, which will lower the energy bill by shading the house in the summer.
-  Stabilize slopes by planting deep-rooted, woody ground covers. Add widely-spaced taller shrubs and trees to maximize slope stability.
-  Do not plant Cypress, Eucalyptus, or Junipers close to the house as they contain oils that can cause fire to spread rapidly.



CONTACT

► California Dept. of Forestry & Fire Protection, www.fire.ca.gov

► California Fire Safe Council
www.firesafecouncil.org

► Firewise, sponsored by the National Wildfire Coordinating Group, www.firewise.org

► Smokey Bear Fire Prevention Materials, www.smokeybear.com

**FOR ALL FIRE EMERGENCIES
CALL 911**

Air Quality, Automobiles, and Energy

Electricity generation and the use of fossil fuels for transportation are major sources of air pollution in the United States, contributing to smog, acid rain and global warming. One of the single most effective ways to improve air quality and help the environment is to reduce dependence on cars and gasoline. Conservation can make a difference!



Ride a Bike.

WHAT YOU CAN DO

to help clear the air:

- ☼ Carpool, ride the bus, walk, or ride a bike.
- ☼ Make your next vehicle purchase an electric or a hybrid car.
- ☼ Combine multiple errands into one trip.
- ☼ Take the kids bicycling, walking or roller-skating to form healthy habits and develop an understanding of the impact their actions have on air quality.
- ☼ Turn off all appliances and lights when not in use.
- ☼ Change incandescent bulbs to compact fluorescent.
- ☼ Install energy-efficient (Energy-Star) appliances.
- ☼ Switch to solar energy.
- ☼ Plant a tree. Trees lower energy bills by shading the house.
- ☼ Install a whole house fan rather than an air conditioner.
- ☼ Close curtains on sunny windows to reduce heat gain.
- ☼ Minimize use of wood stoves or fireplaces.
- ☼ Use a dry cleaner that does not use perchlorate.

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CONTACT

WEBSITES WITH ENERGY SAVING TIPS







- ▶ Flex Your Power
www.flexyourpower.ca.gov
- ▶ Earth911
www.earth911.org
- ▶ US Department of Energy
www.eere.energy.gov



Section 2 GREEN LIVING

WHAT YOU CAN DO

to help when you must drive:





-  Make your next vehicle cleaner-fueled and more efficient. Electric, natural gas, and hybrid-electric vehicles pollute less and reduce our dependence on oil.
-  Combine multiple errands into a single trip.
-  Maintain your vehicle, especially tire pressure. Excessive exhaust is harmful to you and the people around you.
-  When getting gas, do not top off your tank and wait before removing the nozzle. Fuel spillage adds to air pollution.
-  Park in the shade of a building or tree to reduce the evaporation of gasoline from your car.
-  Use your ashtray if you are a smoker. Cigarette butts take up to five years to break down in the ocean and can kill fish, birds, seals, and other marine life.



Green Electricity

Green electricity is derived from clean, renewable energy sources such as solar, wind, biomass, and geothermal. Most electricity in the United States comes from coal, oil, nuclear, large hydroelectric, and natural gas plants. The burning of non-renewable fossil fuels contributes to air quality problems and global warming.

WHAT YOU CAN DO

-  Use less energy.
-  Wear a sweater when it's cool.
-  Contact your utility company to learn about your green energy options.
-  Let your representatives know that renewable energy sources should be a priority.

EDUCATE YOURSELF:

- ▶ Go Green Power
www.gogreenpower.org
- ▶ Global green USA
www.globalgreen.org
- ▶ GreenE, www.green-e.org
- ▶ California Energy Commission
www.energy.ca.gov
- ▶ US Department of Energy
www.eere.energy.gov

Buying Green

The best way to reduce our impact on the environment is to limit our use of resources. It is helpful to purchase products whose production and use have a reduced impact on the environment. Small changes by many people can make a big difference!

WHAT YOU CAN DO

Purchase products that:

- ☼ Use minimal packaging.
- ☼ Contain recycled material.
- ☼ Contain raw materials derived from renewable sources.
- ☼ Can be reused or recycled.
- ☼ Are produced locally.
- ☼ Do not use products that require special disposal.



Buy local products.



Using recycled water.

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Buy local produce.

SAFE ALTERNATIVES TO COMMON HOUSEHOLD CLEANERS

Try:	Instead of:
• borax and water or baking soda	chlorine bleach
• ½ c. vinegar + 1 qt. water	glass cleaner
• ½ lemon dipped in borax or baking soda	abrasive cleanser
• 1 part lemon juice + 2 parts vegetable oil	furniture polish
• toothpaste or baking soda polish	silver polish

SOURCE: American Oceans Campaign
(www.americoceans.org)

Section 2 GREEN LIVING

Green Housing Construction

When building or modifying a home keep sound environmental practices in mind. Green construction improves energy efficiency, resource conservation, indoor air quality, and protects the health of your family. In addition to helping the environment, a "green" house can save you money and provide you with a healthier, quieter, and more comfortable home.



Generally, building greener involves one or more of the following:

- Planning to preserve the natural environment
- Site development which reduces erosion, minimizes paved surfaces, and protects vegetation
- Water conservation indoors and outdoors
- Energy efficiency
- Using recyclable materials and air conditioning costs.






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Permeable Surfaces

Permeable surfaces such as decomposed (crushed) granite, broken concrete, gravel, mulch and grass or other plants allow water to pass through and soak into the soil beneath, as opposed to running off your yard and contributing to stormwater pollution and flooding.



WHAT YOU CAN DO:

-  Use bricks, stones, broken concrete, crushed granite or gravel for driveways, paths, and patios.
-  Use a contractor who knows and follows regulations concerning construction runoff. Even a small remodel can contribute a large amount of gravel, dirt, and hazardous materials to the storm drain system.
-  Investigate the installation of a 'gray water' system—to collect your household's washing water for re-use in the landscape or for flushing toilets—with your local building department officials to determine if they allow residential use of reclaimed water.



WHAT YOU CAN DO:

to increase sustainability in your home:

- ☼ Add insulation to your home.
- ☼ Use innovative, engineered wood products.
- ☼ Use recycled-content building materials whenever possible and ask your contractor to recycle their demolition waste.
- ☼ Use adhesives, paints, and cleaners with low volatile organic compounds (VOC) to reduce indoor air pollution.
- ☼ Use light colored roofing to reduce home heat absorption, or consider new "green roofs."
- ☼ Use double-glazed windows to save on heating and air conditioning costs.
- ☼ When building a house use the sun. Orient your house and plan your landscaping to take advantage of winter sun and summer shade.
- ☼ Use ceiling fans, whole house fans, and attic ventilation to affordably keep your home comfortable.



Light-Tiled roof



Whole-House fan

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Choose a smart sprinkler controller for your home

- A smart sprinkler controller automatically adjusts irrigation schedules in response to changing weather conditions.
- They are also called "weather-based irrigation controllers."
- Smart controllers are a new technology & can be difficult to find.

For more information log onto www.bewaterwise.com for a listing of manufacturers & websites

LEARN MORE:

- ▶ Ecohome Network
www.ecohome.org
- ▶ National Association of Home Builders
www.nahb.org
- ▶ Home Builders Association
www.hba.org
- ▶ Urban Land Institute
www.uli.org/



Section 2 GREEN LIVING

Trash and Recycling

Reduce, Reuse, Recycle

As populations grow, cities face increasing problems with waste disposal. Finding ways to dispose of our waste becomes increasingly difficult and expensive. Trash that washes into storm drains is a leading contributor to unhealthy water in our streams, rivers and lakes.



Recycle, Recycle, Recycle.

DID YOU KNOW:

- Nearly half of the world's annual commercial wood harvest is used to produce paper.
- Recycling aluminum saves 95% of the energy required to produce it from virgin materials.
- Over 30% of California's solid waste consists of organic materials. Most of this ends up in a landfill, even though it could be composted.
- Materials in landfills can take hundreds of years to degrade.
- Although plastic carries a recycling symbol, very little of it is actually recycled. Discarded plastic washes into the ocean and chokes and kills marine animals including turtles, sea horses, fish, seals, and birds.

Household Hazardous Waste includes metals, chemicals, batteries, and electronics, such as computers and stereos, that can be used or stored in your kitchen, workshop, garage, garden, or bathroom. It is illegal to dispose of household hazardous waste anywhere but at authorized Household Hazardous Waste and/or Antifreeze, Batteries, Oil and Paint (HHW/ABOP) collection centers. The County of Riverside and local cities sponsor several free collection events throughout the year in the San Jacinto watershed. You can learn more about HHW/ABOP, disposal, and free collection events as www.rivcoeh.org or by calling (800) 506-2555.



Be creative – reuse or recycle products. This old tree became a work of art.

WHAT YOU CAN DO

to help reduce waste and consume less:

- ☼ Use canvas bags or re-use plastic bags when shopping.
- ☼ Purchase products with minimal packaging material.
- ☼ Buy products that use recycled materials.
- ☼ Use both sides of paper. Make your own notepads by saving one-sided scrap paper or mail, cutting in half and securing with a re-usable clip.
- ☼ Avoid using plastic unless it is something, like a sturdy cup or bag, that you can re-use.
- ☼ Recycle.
- ☼ Give away or garage sale useful unwanted items.
- ☼ Dispose of hazardous household waste properly (call 800-506-2555 for HHW/ABOP disposal days). Remember that this includes paint, many common cleansers, car fluids, and electronic equipment.
- ☼ Use tap water or wash, refill, and reuse water bottles.
- ☼ Join a neighborhood clean-up.
- ☼ PUT IT IN THE CAN! Pick up a little litter wherever you are, whether in the city or on the trail.

to help reduce green waste:

- ☼ Leave grass clippings on your lawn, sometimes called "grasscycling". They provide important nutrients and reduce water loss.
- ☼ Choose plants that will be the desired size at maturity to minimize pruning.
- ☼ Compost garden and household fruit and vegetable waste.
- ☼ Chip clippings, prunings, and raked leaves. They all make great mulch.



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Section 3

 GET INVOLVED

The following is a list of some of the local environmental organizations and exciting things that are happening in and around the San Jacinto watershed. As a volunteer, you can take direct action to preserve the quality of life for our communities and the natural beauty and benefits of our watershed. Stay aware of what is being planned for the future of your own neighborhood and express your opinions.

"Never doubt that a small group of thoughtful, committed individuals can change the world, indeed it's the only thing that ever has."

— Margaret Mead

Section 3 GET INVOLVED

Volunteer Opportunities

California Native Plant Society

Preservation of native plants and habitat, www.cnps.org.

Center For Community Action and Environmental Justice.

P.O. Box 33124 Riverside, CA 92519

Ph. (951) 360-8451, <http://www.ccae.org/>

Friends of the Northern San Jacinto Valley

Hiking, reforestation, park clean ups

P.O. Box 9097, Moreno, Valley 92552

Ph. (951) 928-3698, <http://www.northfriends.org/>

Friends of Nuevo Community Council

PO Box 647, Nuevo CA 92567

<http://www.foncc.net/>, and info@foncc.net

Lake Elsinore Citizen Committee, Contact: Donna Frances, Ph. (951) 674-1989. Lake Elsinore, *focuses on the recreation and preservation of the lake.

National Wildlife Federation

Backyard and schoolyard habitat program, www.nwf.org.

San Bernardino Valley Audubon Society

P.O. Box 10973, San Bernardino, CA 92423

<http://www.sbvas.org>

San Jacinto River Watershed Council

Non-profit watershed council

Contact: Pat Boldt, Ph. (951) 808-8531

Santa Rosa Plateau Ecological Reserve/Nature

Conservatory, Location: outskirts of Murrieta

Contact: Carol Bell, Ph. (951) 677-6951

Santa Ana Watershed Association, Education, cleanups, Contact: Renee Latu (909) 799-7407 Ext. 105

Sierra Club

San Gorgonio Chapter of environmental activism, hiking, 4079 Mission Inn Ave., Riverside, CA 92501

Ph. (951) 684-6203

<http://www.sangorgonio.sierraclub.org/>

Western Riverside County Agriculture Coalition

Coalition addresses agricultural environmental issues in the watershed. Comprised of agricultural operators, dairy, and land owners. Contact: Bruce Scott

Ph. (951) 654-5096 or wrcac_mail@yahoo.com



What's Happening in and Around Your Watershed

There are many exciting things happening in and around your watershed. Here are several important developments and projects.

The San Jacinto River Watershed Council

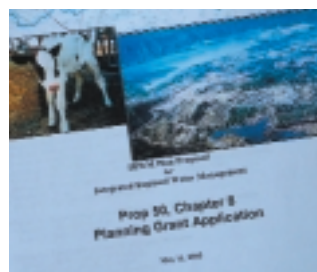
The San Jacinto Watershed Council, a 501 (c) 3 non-profit, grass roots organization, is an open forum of the entire watershed, upper and lower, and strives to represent all stakeholders. The Council Board consists of water agency, County, federal/regional, tribal, dairy, agriculture, environmental and 2 at-large representatives. The Council may be characterized as broad-based in its representation and holistic in its approach to issues of watershed management and planning. Current activities include:

- Prop 50, Chapter 8 Planning Grant for the Development of an Integrated Regional Watershed Management Plan for the San Jacinto Watershed (funded by the State of California, Department of Water Resources)
- Assistance with TMDL Implementation (page 28)
- Education and Outreach...this Guidebook!
- Applying for grants that will help address water resource and water quality problems
- Coordination and integration of other regional studies and plans, and their impacts on the watershed.
- Development of work groups to address critical issues
- Assist development of strategies to control nutrients and pathogens negatively impacting water bodies.

For more information visit our website at www.sawpa.org/sjrwc/, or contact Pat Boldt, SJRWC Executive Director at Mpboldt@aol.com.



San Jacinto River Watershed Volunteer opportunities



Prop 50 Planning Grants.



The San Jacinto "GAP" area.

Section 3 GET INVOLVED

What is a TMDL?

In our watershed, there are two impaired lakes that do not meet expected water quality standards. Under the Clean Water Act, the Santa Ana Regional Water Quality Control Board (RWQCB) has identified Canyon Lake and Lake Elsinore as needing water quality improvement. Excessive nutrients and pathogens are the primary problems affecting the lakes.

To control the level of nutrient and pathogens entering the lakes, RWQCB has established a new water quality regulation called a Total Maximum Daily Load (TMDL). The TMDL provides an assessment and planning framework for identifying nutrient and pathogen sources, achieving load reductions, and taking actions that are needed to attain the water quality standards. The TMDL also sets target dates for when the water quality standards must be met and an implementation plan to attain it. By compliance to these water quality standards, aquatic life, drinking water and other beneficial uses at the lakes will be protected.

A stakeholder TMDL Task Force has been formed to address the TMDL's affecting our watershed. Specific tasks have been identified to start the process of improving water quality in these two lakes and work is underway. However, the solution will ultimately be dependent on controlling watershed residents contributions of nutrients and pathogens to the lakes.

If you would like additional information regarding the TMDL, please visit www.mywatersheds.com.



Lake Elsinore



Canyon Lake



The goal of the TMDL is to restore beneficial uses to Canyon Lake and Lake Elsinore.



Stocking fish in Lake Elsinore.



The Multi-Species Habitat Conservation Plan

When Western Riverside County revised its General Plan, the Multi-Species Habitat Conservation Plan (MSHCP) was an important part. Finalized in June 2004, it aims to address the dissatisfaction that all sectors of our County felt with the long and complicated process developers had had to go through to get clearance to build, and the haphazard way species were protected.

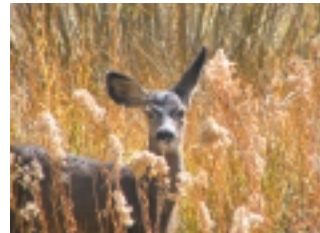
Certain areas are considered important to keep as open space, besides those lands already in public hands. This conserves the habitats for some of our most beautiful and threatened species of wild life and to provide linkages among the conserved areas.

The San Jacinto River is a vital corridor in this Habitat Conservation Plan. Starting in the San Jacinto mountain range, it passes through the Mystic Lake wetlands, then agricultural flood plain, which has been for centuries home to native creatures and the hawks and owls that prey on them. The river flows to the base of the Cleveland range and then, into Lake Elsinore, which is gradually being restored as home for native fish and recreation for humans.

As development continues in our watershed, we must ensure that enough of the "criteria areas" of the MSHCP are conserved, to ensure that our river continues to meander in winter across the valley, nourishing rare plants that are found nowhere else, providing a haven for large and small wildlife, and replenishing our underground water.



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Section 3 GET INVOLVED

Lake Elsinore And San Jacinto Watersheds Authority

LESJWA improves and maintains the waters within Lake Elsinore, Canyon Lake, and the San Jacinto River Watershed.

LESJWA's membership includes representatives from five member agencies in the area (listed below) working together to improve water quality at Lake Elsinore and Canyon Lake.

- Santa Ana Watershed Project Authority
- City of Lake Elsinore
- City of Canyon Lake
- Elsinore Valley Municipal Water District
- County of Riverside

A few of LESJWA's projects are as follows:

LAKE ELSINORE

- **Supplemental Lake Water** – Improvements made to existing lake supply wells and recycled water treatment will provide supplemental water that will replenish low lake water levels, when necessary.
- **Lake Mixing System** – Large amounts of algae in Lake Elsinore decrease healthy oxygen levels, in turn killing fish and damaging recreational opportunities. Lake mixing helps evenly distribute oxygen throughout the lake to keep it vibrant and healthy.
- **Aeration System** – This subsurface aeration system bubbles air into the water column from pipes on the bottom of the lake to increase lake oxygen levels, which helps lower the amount of algae throughout the lake.
- **Carp Removal** – Carp is a bottom dwelling fish that stirs up silt and unwanted nutrients from lake floors that contribute to the growth of alga blooms which can be harmful to water quality. The removal of carp is vital to the overall health of a lake.

CANYON LAKE

- **Dredging System** – Dredging removes sediment levels from the lake bottom with the use of a self-propelled platform whose suction vacuum sweeps the bottom of the lake floor which improves water quality and water supply.

For additional information visit www.mywatersheds.com



LESJWA's mascot Bessie the Bass explains what a watershed is at the Temecula Water Festival.



Dredging machine at Canyon Lake



Island Wells water flow at Lake Elsinore.

Ten Fun Ways to Enjoy your Watershed

1. **Take a Hike**...a jaunt, a trek, a strut...just get out and see, hear and smell the world in your back yard.
2. **Stop and Smell the Roses**...the mountains, the hills, the valley, Lupine, Poppies, and Sage.
3. **Spend Some Quality Time with your Pet**...leash your dog or cat (bring a bag for pet wastes). Ride a horse or a mule! Check out the trails together.
4. **Play in the Garden**...add native plants to your garden—Manzanita, California lilac, Toyon, and Sage. Use biological controls instead of pesticides, Conserve water.
5. **Get Down and Dirty**...volunteer with other organizations. Help plant trees, restore habitat, and clean-up your watershed.
6. **Tap into Watershed Consciousness**... the big picture! Remember your street and storm drains lead to the ocean.
7. **Sing, Shout, Get the Word Out!**...let friends, family and officials know how you feel about preserving and restoring the San Jacinto.
8. **Explore your Watershed**...discover the San Jacinto watershed, all 780 miles of diverse plantlife, animals, its human communities, and wonderful cultural gems.
9. **Plan a Bright Future**...participate in San Jacinto watershed planning efforts. Bring a friend. Log onto www.sawpa.org/sjrwc/
10. **You Can Make A Difference!**...embrace our natural resources. Protect habitat and enjoy your watershed.



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Section 4

RESOURCES IN YOUR COMMUNITY

We hope you have found this guidebook educational, informative and full of simple actions that you can take to help protect our water supply and preserve our open spaces for your enjoyment and the enjoyment of future generations. We put together the following resources and contacts to help you become more involved in your communities and in the health of your watershed. Remember that your government representatives at all levels—from local to the national—work for you and want to know what you think—express your opinion!

*"Hope is the thing with feathers - that
perches in the soul - and sings the tune
without words - and never stops, at all."*

— Emily Dickinson

Section 4 RESOURCES IN YOUR COMMUNITY

Parks and Open Space

PARKS

Lake Perris State Recreation Area

17801 Lake Perris Drive, Perris, CA 92571

Ph: (951) 657-0676

www.parks.ca.gov/default.asp?page_is+651

Mount San Jacinto State Park

PO Box 308

25905 Highway 243

Idyllwild, CA 92549

Ph: (951) 659-2607

wilderness permits 951-659-2607

www.parks.ca.gov/default.asp?page_id+36

The San Bernardino National Forest

54270 Pinecrest

P.O. Box 518, Idyllwild CA 92549

Ph: (951) 382-2921

wilderness permits 951-659-2117

www.fs.us/r5/sanbernardino

Visitor Information Center

(Corner of Pine Crest and Highway 243 in Idyllwild)

www.parks.ca.gov/default.asp?page_is+651

San Jacinto Wildlife Area

PO Box 1254, 17050 Davis Road

Nuevo, CA 92567

Ph: (951) 928-0580

Riverside County Regional Park & Open Space District

4600 Crestmore Road, Riverside, CA 92509

Ph: (951) 955-4310

reservations 1-800-234-7275 (park)

www.riversidecountyparks.org/

McCall Memorial Park

28500 McCall Park Road

Mountain Center, CA 92561

(951) 659-2311

Lawler Alpine Cabins (youth group lodging only)

19751 Hwy 243 Idyllwild, CA 92549

Ph: (951) 955-4397

Idyllwild Nature Center

25222 Hwy 243, Idyllwild, CA 92549

Ph: (951) 659-3850

Idyllwild Park

5400 Riverside County Playground Rd.,
Idyllwild, CA 92549

Ph: (951) 659-2656

Hurkey Park

56375 Highway 74

Mountain Center, CA 92561

Ph: (951) 659-2050

Simpson Park

28505 Rawlings Road

Hemet, CA

www.cityofhemet.org/parks.htm#simpson



Lakes/Recreation Areas

Diamond Valley Reservoir Recreation Area

Now open for boaters and anglers. Additional recreational activities are planned. A Visitor's Center highlighting paleontological discoveries and a scenic viewpoint will be open on varying schedules. Ph: (800) 211-9863 for days, hours and directions.



Lake Elsinore Recreation Area (LERA)

The lake offers boating, camping and day use areas. General Lake information: (951) 674-7730
LERA Campground: Ph: (951) 471-1212
LERA Campground reservations: Ph: (800) 416-6992
Seaport Boat launch: Ph: (951) 245-9308
Camping information: Ph: (800) 416-4992



Lake Perris State Recreation Area

Lake Perris offers a variety of water recreation activities including swimming, fishing (shore, pier, and boating), water craft use, sailing, waterskiing and even scuba diving.

17801 Lake Perris Drive, Perris CA 92571

Ph: (951) 657-0676

www.parks.ca.gov/default.asp?page_is+651

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EQUESTRIAN TRAILS

Diamond Valley Reservoir Recreation Area

*not currently available/future plans

Lake Perris Recreation Area

17801 Lake Perris Drive

Perris, CA 92571

Ph: (951) 657-0676

www.parks.ca.gov/default.asp?page_is+651

AGRICULTURAL RESOURCES

Milk Producer's Council

Bill Van Dam Ph: (909) 628-6018

Riverside County Farm Bureau

Contact: Steve Pastor Ph: (951) 684-6732

www.riversidecfb.com

pastor@riversidecfb.com

Western Riverside County Agriculture Coalition

Contact: Bruce Scott at (951) 654-5096 or

wrcac_mail@yahoo.com



Section 4 RESOURCES IN YOUR COMMUNITY

Educational Programs and Workshops:

Santa Ana Watershed Association (SAWA)

Provides on-site education, clean up days, and other educational activities,
For more information contact: Renee Latu Ph: (909) 799-7407, Ext. 105

The San Jacinto Center for Environmental Education

Provides environmental education at the San Jacinto Wildlife area, Contact:
Sue Nash Ph: (909) 228-6710

San Jacinto Basin Resource Conservation District

(951) 654-7733

Western Municipal Water District

Landscapes Southern California Style-A one-acre water
conservation demonstration garden, via a self-guided tour of over
250+ plant species and 50 educational stations. Additional information at
www.wmwd.com, School educational tours available. Ph: (951) 789-5987

Home and Garden

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Green Building:

National Association of Home Builders www.nahb.org
Home Builders Association www.hba.org
Urban Land Institute www.uli.org/
Ecohome Network, Ph: (323) 662-5207, www.ecohome.org

Garden-Native Plants and Invasive Species:

Backyard Composting Program, Ph: (951) 486-3200, for times and locations
California Native Plant Society, www.cnps.org
California Invasive Plant Council, Ph: (510) 525-1502, www.caleppc.org
Riverside County Agricultural Commissioner, Ph: (951) 955-3000
Metropolitan Water District, Heritage Garden Program,
www.bewaterwise.com
National Wildlife Federation, Backyard Wildlife Habitat Program
Ph: (619) 296-8353, www.nwf.org
Rancho Santa Ana Botanic Garden, Ph: (909) 625-8767
www.rsabg.org
Theodore Payne Foundation Nursery, Ph: (818) 768-1802
www.theodorepayne.org
Tree of Life Nursery, San Juan Capistrano, Ph: (949) 728-0685
www.treeoflifenyrsery.com

Fire Departments

FOR ALL FIRE EMERGENCIES CALL 911!



Air, Water and Land Resource Agencies and Organizations

GOVERNMENTAL AGENCIES:

South Coast Air Quality Management District (SCAQMD), Regional air quality or to lodge a pollution complaint, Ph: (800) CUT SMOG (288-7664). SCAQMD, list of non-toxic cleaners in our area, [www.aqmd.gov]

California EPA, Air Resources Board, Ph: (800) 363-7664 for pollution complaints and to find out about the health effects of indoor and outdoor air pollution, Ph: (916) 322-2990 for info on air quality programs.

US Environmental Protection Agency, Region 9 Office, Potential sources of indoor air pollution and ways to improve indoor air quality, Ph: (415) 972-3102, (800) 438-4318.

Non-profit Organizations:

Communities for a Better Environment, strategies for improving and protecting air quality, www.cbemw.org.

Environmental Defense Scorecard, air quality and polluters in your community, [www.scorecard.org].

Natural Resources Defense Council, air and energy programs, federal legislation, and publications on air quality, www.nrdc.org.

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Websites with Energy Saving Tips:

Flex Your Power, www.flexyourpower.ca.gov

Earth911, www.earth911.org

US Department of Energy, www.eere.energy.gov

Local Electricity and Gas Providers:

Southern California Electric, Ph: (800) 655-4555

Southern California Gas Company, Ph: (800) 427-2000

Air, Water and Land Resource Agencies and Organizations

Renewable Energy Information:

Go Green Power, www.gogreenpower.org

Global Green USA, www.globalgreen.org

GreenE, www.green-e.org

California Energy Commission, www.energy.ca.gov

US Department of Energy, www.eere.energy.gov

Waste, Stormwater and Watershed Management

Lake Elsinore and San Jacinto Watersheds Authority

www.mywatersheds.com

Riverside County Environmental Health Dept. Call 1 (800) 304-2226 for dates and times of free collection events throughout Riverside County, This Department can help you with hazardous waste disposal and pollution issues.



Section 4 RESOURCES IN YOUR COMMUNITY

Santa Ana Watershed Project Authority, www.sawpa.org/

Riverside County Flood Control and Water Conservation District

(951) 955-1200, <http://www.floodcontrol.co.riverside.ca.us>. This Department can help you with flooding concerns and reporting of storm water pollution.

Riverside County Waste Management Department

Ph: (800) 366-SAVE or (951) 486-3200, <http://www.rivcowm.org>. This Department can assist you with information about landfills, recycling, and the composting programs.

Riverside County Water Task Force, Supervisor Marion Ashley

Ph: (951) 955-1050, www.district5@rcb05.org

California Regional Water Quality Control Board, Santa Ana Region

Ph: (951) 782-4130, region8info@waterboards.ca.gov

The San Jacinto River Watershed Council

Ph: (951) 808-8531, www.sawpa.org/sjrw

Bureau of Reclamation

Reclamation is the largest wholesale water supplier in the United States, and the nation's second largest producer of hydroelectric power. Its facilities also provide substantial flood control, recreation, and fish and wildlife benefits. Visit their website at <http://www.usbr.gov>

Southern California area office, Ph: (951) 695-5310

Government Representatives

UNITED STATES LEGISLATURE:

To find out who your representative and senators are, either call your local city hall, check your telephone book or enter your zip code in the following website: www.congress.org, Federal and State Elected Officials, Cities in Watershed

STATE OF CALIFORNIA

Governor

Arnold Schwarzenegger

Ph: (916) 445-2841 or (213) 897-0322, e-mail: governor@governor.ca.gov

Congressional

Congresswoman Mary Bono, U. S. Congressional District 45

Ph: (202) 225-5330 or (951) 658-2312

Congressman Ken Calvert, U.S. Congressional District 44

Ph: (202) 225-1986 or (951) 784-4300

Congressman Darrell Issa, U. S. Congressional District 49

Ph: (202) 225-3906 or (951) 693-2447

Congressman Jerry Lewis, U.S. Congressional District 41

Ph: (202) 225-5861 or (909) 862-6030

State Assembly

Bill Emmerson, District 63, Ph: (909) 466-9096

John Benoit, District 64, Ph: (951) 369-6644

Russ Bogh, District 65, Ph: (909) 790-4196

Ray Haynes, District 66, Ph: (951) 699-1113

State Senate

Bob Dutton, District 31, Ph: (909) 466-4180

Dennis Hollingsworth, District 36, Ph: (951) 676-1020

Jim Battin, District 37, Ph: (951) 953-9502

SAN JACINTO WATERSHED CITIES AND COMMUNITIES

Cities

City of Beaumont

Ph: (951) 769-8520

www.ci.beaumont.ca.us

City of Canyon Lake

Ph: (951) 244-2955

www.cityofcanyonlake.com

City of Hemet

Ph: (951) 765-2300

www.cityofhemet.org

City of Lake Elsinore

Ph: (951) 674-3124

www.lake-elsinore.org

City of Moreno Valley

Ph: (951) 413-3000

www.ci.moreno-valley.ca.us

City of Murrieta

Ph: (951) 304-2489

www.murrieta.org

City of Perris

Ph: (951) 943-6100

www.cityofperris.org

City of Riverside

Ph: (951) 826-5311

www.riversideca.gov

City of San Jacinto

Ph: (951) 654-7337

www.ci.san-jacinto.ca.us

Community

Idyllwild

Ph: (951) 659-3259

www.idyllwildchamber.com

Quail Valley

Ph: (951) 672-1991 (Menifee Chamber)

Sun City

Ph: (951) 672-9006

Menifee

Ph: (951) 672-1991

www.menifeevalleychamber.com

Romoland

Ph: (951) 672-1991 (Menifee Chamber)

Soboba Band of Luiseño Indians

(951) 654-2765

Winchester

Ph: (951) 926-8972

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CONTACT

WATER SUPPLIERS

► Eastern Municipal Water District, www.emwd.org

► Elsinore Valley Municipal Water District, www.evmwd.com

► Idyllwild Water District www.idyllwildwater.org

► Lake Hemet Municipal Water District, www.lhmwd.org

► Nuevo Water Company Ph: (951) 928-1832

► Western Municipal Water District, www.wmwd.com



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Watershed Map

Elsinore Valley Municipal Water District

Watershed Illustration

LESJWA

San Jacinto Watershed

AND SURROUNDING COMMUNITIES





Stormwater Pollution Found in Your Area!

This is not a citation.

This is to inform you that our staff found the following pollutants in the storm sewer system in your area. This storm sewer system leads directly to

-
- ☐ Motor oil
 - ☐ Oil filters
 - ☐ Antifreeze/
transmission fluid
 - ☐ Paint
 - ☐ Solvent/degreaser
 - ☐ Cooking grease
 - ☐ Detergent
 - ☐ Home improvement waste (concrete,
mortar)
 - ☐ Pet waste
 - ☐ Yard waste (leaves, grass, mulch)
 - ☐ Excessive dirt and
gravel
 - ☐ Trash
 - ☐ Construction debris
 - ☐ Pesticides and
fertilizers
 - ☐ Other
-



**For more information or to report
an illegal discharge of
pollutants, please call:**

**Riverside County Residents, Call . . .
1-800-506-2555**



www.epa.gov/npdes/stormwater

EPA 833-F-03-002

April 2003



Stormwater runoff is precipitation from rain or snowmelt that flows over the ground. As it flows, it can pick up debris, chemicals, dirt, and other pollutants and deposit them into a storm sewer system or waterbody

Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water

Remember:
Only Rain Down the Drain

To keep the stormwater leaving your home or workplace clean, follow these simple guidelines:

- Use pesticides and fertilizers sparingly
- Repair auto leaks.
- Dispose of household hazardous waste, used auto fluids (antifreeze, oil, etc.), and batteries at designated collection or recycling locations.
- Clean up after your pet.
- Use a commercial car wash or wash your car on a lawn or other unpaved surface.
- Sweep up yard debris rather than hosing down areas. Compost or recycle yard waste when possible.
- Clean paint brushes in a sink, not outdoors. Properly dispose of excess paints through a household hazardous waste collection program.
- Sweep up and properly dispose of construction debris like concrete and mortar

