TECHNICAL APPENDICES

Magnolia-Plaza Reliability Project
Initial Study / Mitigated Negative Declaration

Prepared For:

City of Riverside – Public Utilities Department
Energy Delivery Engineering Division
Mission Square, 4th Floor
3750 University Avenue
Riverside, California 92501
Contact: Fady Megala, P.E., Utilities Senior Electrical Engineer, Substations
Phone: 951.826-5873

Prepared by:
RBF Consulting
9755 Clairemont Mesa Boulevard, Suite 9755
San Diego, California 92124
Contact: Nicole Marotz, Senior Environmental Planner
Phone: 858.614.5000

November 2013

Appendix A

Air Quality/Climate Change Assessment

TECHNICAL MEMORANDUM

ENTECH CONSULTING GROUP
PLANNING • ENVIRONMENTAL • CONSTRUCTION MANAGEMENT

DATE: September 9, 2013

PREPARED FOR: City of Riverside

PREPARED BY: Michelle A. Jones, Principal, Entech Consulting Group

SUBJECT: Air Quality and Climate Change Assessment – Magnolia-Plaza Reliability Project

Introduction

The City of Riverside Public Utilities (RPU) is proposing the Magnolia Plaza Reliability Project (proposed project). This proposed project consists of expanding the existing Plaza Substation, located between Magnolia Avenue and Elizabeth Street, to support the conversion from 4kV distribution to 12 kV for improved efficiency and modernize and replace the existing obsolete equipment. Upon project completion of the proposed project, the conversion to 12 kV distributions will facilitate the retirement and removal of the Magnolia Substation, located directly east of State Route 91 and south of Central Avenue to the north and BNSF railroad tracks to the east.

Construction of the proposed project will be broken down into the following five phases. Phase 1, referred to as the Plaza T5 Addition, will involve the upgrade of equipment to complete the 4kV to 12 kV conversion, including but not limited to transformer additions with associated circuit breakers, capacitor bank, relay and control panels and a switchgear building. Phases 2 through 4 will provide for the replacement of distribution feeders and transmission work to support transferring all electrical services from the existing Magnolia Substation to the expanded Plaza Substation. Phase 5 will consist of the demolition of the Magnolia after all power is transferred to the new Plaza T5 Addition.

This technical memorandum will assess the potential air quality and climate change impacts the proposed project may have on the surrounding environment. The assessment will be performed pursuant to the requirement of the California Environmental Quality Act (CEQA).

Thresholds of Significance

An air quality assessment was performed to identify potential impacts for the proposed project utilizing the checklist provided in Appendix G of the CEQA Guidelines. An air quality impact would have a significant adverse effect on sensitive receptors if any of the following would occur as a result of a project-related component.

a) If the proposed project would conflict with or obstruct implementation of the applicable air quality plan.

b) If the proposed project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

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

d) If the proposed project would expose sensitive receptors to substantial pollutant concentrations.

e) If the proposed project would create objectionable odors affecting a substantial number of people.

The proposed project is located within the South Coast Air Basin (Basin). The South Coast Air Quality Management District (SCAQMD) has jurisdiction over the Basin and has regional authority delegated by California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (U.S. EPA). Therefore, the regional and localized thresholds recommended by the SCAQMD are utilized for this assessment as shown in Table 1.

Regional Emission Significance Thresholds are designed to limit the impacts that emissions from a proposed project would have in affecting the ability of the Basin to attain or maintain air quality standards. Such emissions may affect the attainment of air quality standards many miles from a proposed project location. This assessment will quantify regional emissions and compare them to regional emission thresholds for construction and operational activities to assess regional air quality impacts.

Localized Significance Thresholds are established to assess short-term construction activities and long-term operational air quality impacts on nearby sensitive receptors. Sensitive receptors are defined as those individuals who are sensitive to air pollution and include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as NO_x and CO), commercial and/or industrial facilities would be considered worker receptors for those purposes.

The closest sensitive receptors consist of a community of single-family residences along both sides of Elizabeth Street located approximately 200 feet east of the existing Plaza Substation property line. Air quality impacts will be assessed at these receptors to evaluate impacts.

Table 1 displays the regional and local SCAQMD significance thresholds applicable to the proposed project.

The air quality assessment evaluated the operational and construction air quality impacts from the proposed project to determine whether significant adverse effects would occur on noise sensitive land uses in the project area. The conclusions of the air quality assessment are presented below for each threshold criteria.

Table 1. SCAQMD Significance Thresholds

Pollutant	Thresholds (lbs/day)	
	Construction	Operational
Volatile Organic Compounds (VOC)	75	55
Nitrogen Oxides (NO_x)	100	55
Particulate Matter (PM_{10})	150	150
Particulate Matter ($PM_{2.5}$)	55	55
Sulfur Oxides (SO_x)	150	150
Carbon Monoxide (CO)	550	550
SCAQMD Localized Significance Thresholds[(1)]		
Pollutant	**Thresholds (lbs/day)**	
	Construction	**Operational**
Nitrogen Oxides (NO_x)	148	148
Carbon Monoxide (CO)	887	887
Particulate Matter (PM_{10})	12	3
Particulate Matter ($PM_{2.5}$)	4	1
SCAQMD Health Risk Significance Threshold		
Toxic Air Contaminants	Maximum Incremental Cancer Risk >= 10 in 1 million Hazard Index >= 1.0	

Source: SCAQMD web page, www.aqmd.gov
Notes:

1) The localized significance thresholds are applicable to SCAQMD Source-Receptor Area (Metropolitan Riverside County) where the Project is located and for construction area of 1 acre and a distance of 50 meters to the nearest sensitive receptor.

Climate Change Significance Criteria

According to the California Natural Resources Agency, "due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis. According to Appendix G of the CEQA Guidelines, the following criteria may be considered to establish the significance of Global Climate Change (GCC) emissions:

Would the project:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As discussed in Section 15064.4 of the CEQA Guidelines, the determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency, consistent with the provisions in Section 15064. Section 15064.4 further provides that a lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or

2) Rely on a qualitative analysis or performance based standards.

Section 15064.4 also advises a lead agency to consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and

3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

Based on the CARB's analysis that statewide 2020 business as usual GHG emissions would be 596 million metric tons of CO_2 equivalents ($MMTCO_{2e}$) and that 1990 emissions were 427 $MMTCO_2e$, local lead agencies have estimated that a reduction of 28.35% below business as usual is required to achieve the AB 32 reduction mandate (CARB 2010).

To date, the SCAQMD Board has adopted an interim CEQA significance threshold for GHGs for industrial projects where the SCAQMD is the lead agency, and continues to consider screening levels under CEQA for residential, commercial, and mixed use projects.

Beginning in April 2008, the SCAQMD convened a working group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. On December 5, 2008, the SCAQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold for industrial projects where the SCAQMD is the lead agency (SCAQMD 2008). The interim screening threshold for industrial projects is 10,000 $MTCO_2e$ per year ($MTCO_2e$/yr).

In September 2010, SCAQMD staff presented to the Working Group a proposed tiered approach to determining GHG significance for proposed residential and commercial projects (SCAQMD 2010). At Tier 1, GHG emissions impact would be less than significant if the project qualifies under a categorical or statutory CEQA exemption. At Tier 2, the GHG emissions impact would be less than significant if the project is consistent with a previously adopted GHG reduction plan that meets specific requirements. At Tier 3, the Working Group proposes extending the 10,000 $MTCO_2e$/yr screening threshold applicable to industrial projects where SCAQMD is the lead agency, described above, to other lead agency industrial projects. For residential and commercial projects the Working Group proposes the following Tier 3 screening values: either (1) a single 3,000 $MTCO_2e$/yr threshold for all land use types or (2) separate thresholds of 3,500 $MTCO_2e$/yr residential projects, 1,400 $_{MTCO2e}$/yr for commercial projects, and 3,000 $MTCO_2e$/yr for mixed use projects. A project with emissions less than the applicable screening value would have less than significant GHG emissions.

Projects with emissions greater than the Tier 3 screening values would be analyzed at Tier 4 by one of two methods:

1) A percent emission reduction target. This method is used by the Sacramento Metropolitan and San Joaquin Valley Air Districts and the City of San Diego. The SCAQMD Working Group made no recommendation relative to this method.

2) Efficiency Targets. On the project level, 2020 GHG emissions should not exceed 4.8 $MTCO_2e$/yr per service population (SP) where SP is project residents plus employees. Further, 2035 GHG emissions should not exceed 3.0 $MTCO_2e$/yr per SP.

Projects with GHG emissions that do not meet the Tier 4 targets would be required to provide mitigation in the form of real, quantifiable, and verifiable offsets to achieve the target thresholds. The offsets may be achieved through project design features, other onsite methods, or by off-site actions, such as energy efficiency upgrade of existing buildings.

This proposed screening and mitigation proposal from SCAQMD remains a work in progress; the Working Group has not convened since the fall of 2010. As of August 2013, the proposal has not been considered or approved for use by the SCAQMD Board. In the meantime, no GHG significance thresholds are approved for use in the Basin. The City of Riverside is located within the jurisdiction of the SCAQMD; therefore, the recommended Significance Thresholds provided by the SCAQMD are applicable to projects within the City of Riverside.

Impact Analysis

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

Less than Significant Impact. The applicable air quality plan is the 2012 Air Quality Management Plan (AQMP) adopted by the SCAQMD on December 7, 2012. Two criteria were set in responding to this checklist question to assess compliance with the AQMP:

Criterion 1: Does the proposed project's regional construction and operational emission impacts conform to the SCAQMD's regional emission significance thresholds?

Criterion 2: Are the emissions from the proposed project within the emission budgets assumed in the AQMP?

Criterion 1: Regional Construction and Operational Emission Impacts

With regard to the first criterion, the Project's regional construction and operational emissions may add to an already existing emission burden in the South Coast Air Basin affecting the ability of the South Coast Basin to attain and maintain ambient air quality standards. The estimation of the project's regional emission was based on the CalEEMod land use emission model that is recommended by the SCAQMD. The estimate of regional emissions accounts for emissions that are generated from onsite activities such as the use of construction equipment and dust generated from onsite activities and from offsite sources of emissions from worker vehicles and delivery supply trucks.

Regional Short-term Construction Emissions

Construction emissions may occur during all facets of the construction activities involving demolition, underground work, overhead work, and substation infrastructure construction. Such emissions would come from construction equipment combustion exhaust, fugitive dust from the demolition of the existing public works building, grading and earth-moving activities, paving and emissions from vehicles driven to and from the site by construction workers and delivery vehicles. Construction emissions generate the following pollutants VOCs, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$.

An assessment of regional short-term construction air pollutant emissions was conducted using an estimated construction schedule provided by the City and an inventory of construction equipment typical of the type of construction contemplated for the proposed project. The rates of pollutant emissions from both onsite and offsite construction activities were derived from information provided by the SCAQMD.

The proposed project would cover a total of approximately 1.5 acres including the existing substation site, the empty lot to west of the existing substation, and the demolition of the existing Magnolia Substation. In estimating construction emissions, the following construction activities were included:

- Demolition of the existing Magnolia Substation
- Grading of the empty parcel to the west of the existing Plaza Substation
- Trenching/Underground Utilities
    - Underground work – pulling cable and splicing into existing substructures
    - Underground work – installing a padmounted switch
- Infrastructure construction

- Delivery of construction materials
- Construction of the substation infrastructure

- Aggregate Paving
  - Delivery of paving materials
  - Paving of the entire area of the additional parcel.

From the information provided by the applicant, it was assumed that construction of the proposed project would commence between August 2013 and October 2015. Demolition of the existing Magnolia Station is expected to start in August 2014 and be completed by June 2015. Construction was assumed to occur over an 8-hour day during the construction period.

Table 2 presents the estimated maximum daily regional construction emissions for the proposed project and compares the estimated emissions with the daily mass regional emission significance thresholds for construction established by the SCAQMD. As shown in Table 2, the construction emissions from the proposed project would not exceed any of SCAQMD's regional construction significance thresholds.

Table 2. Estimated Maximum Daily Regional Construction Emissions (lbs/day)

Construction Activity	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Phase 1 - Plaza T5 Addition						
Site Preparation	1.74	12.61	9.01	0.01	0.89	0.81
Trenching	3.09	21.12	16.58	0.03	1.37	1.38
Infrastructure Construction	2.27	16.85	11.48	0.02	1.17	1.07
Aggregate Paving	2.26	13.86	10.79	0.02	1.34	1.12
Regional Threshold	75	100	550	150	150	55
Significant Impact?	no	No	no	no	no	no
Phase 2 - 4-12 kV Conversion						
Site Preparation	1.63	11.82	8.96	0.01	0.91	0.73
Grading	1.99	13.17	11.18	0.02	3.61	1.8
Trenching	3.06	21.08	16.04	0.03	1.37	1.37
Regional Threshold	75	100	550	150	150	55
Significant Impact?	no	No	no	no	no	no
Phase 3 - Distribution feeders						
Site Preparation	1.63	11.82	8.96	0.01	0.8	0.73
Trenching	3.09	21.12	16.58	0.03	1.51	1.38
Regional Threshold	75	100	550	150	150	55
Significant Impact?	no	No	no	no	no	no
Phase 4 - Transmission Line						
Site Preparation	1.63	11.82	8.96	0.01	0.91	0.73
Trenching	3.09	21.12	16.58	0.03	1.51	1.38
Regional Threshold	75	100	550	150	150	55
Significant Impact?	no	no	no	no	no	no
Phase 5 - Magnolia Substation Demo/Decommission						
Demolition	1.9	13.07	9.96	0.02	1.08	0.95
Regional Threshold	75	100	550	150	150	55
Significant Impact?	no	no	no	no	no	no

Source: Entech Consulting Group, 2013

Regional Long-term Operational Emissions

Long-term emissions occur during the full operation of the proposed project. Such emissions would come from area sources including gasoline-powered landscaping, maintenance equipment and from mobile sources (e.g. vehicle trips by Public Utilities employees). The proposed project represents an improvement of the existing substation to complete the conversion of 4kV to 12kV distribution; therefore, it is not

anticipated that any new trips will occur by worker personnel. The Magnolia Substation will be removed and landscaped. Negligible amounts of emissions would also be generated from landscape equipment. The maximum daily operational emissions are expected to be less than significant.

Therefore, the Project's construction and operational emissions would not exceed any of the SCAQMD's regional significance thresholds.

Criterion 2: Project's Emissions are Within the AQMP Emission Budgets

The AQMP is based in large part on the general plans of the various local planning agencies in defining the type and intensity of land use in estimating future emissions budgets. The Project land use is permitted with the general residential designation within the City of Riverside General Plan 2025. The City's zoning ordinance allows public utilities, i.e., substations on parcels that are zoned Residential. As a result, the proposed Project is consistent with the emission budget assumptions contained in the AQMP since it is consistent with the General Plan land use. Thus, the Project would not conflict with or obstruct implementation of the applicable air quality plan.

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

Less than Significant Impact. Two criteria were used in responding to this checklist question:

Criterion 1: Do the Project's regional construction and operational emission impacts conform to the SCAQMD's regional emission significance thresholds?

Criterion 2: Do the Project's localized construction and operational emissions conform to the SCAQMD's localized significance thresholds?

The application of these criteria in addressing this impact question is designed to insure that the air impacts of a proposed project would not cause a new exceedance or contribute to an existing or projected exceedance of an air quality standard either locally within the immediate area of the Project or within the South Coast Air Basin.

Air quality is continuously monitored throughout the SCAB by the SCAQMD. The SCAQMD has positioned multiple air quality monitoring stations throughout the basin to monitor criteria pollutants CO, PM_{10}, $PM_{2.5}$, O_3, NO_2, SO_2, and Pb concentration levels in the atmosphere. The SCAQMD utilizes these monitoring stations to monitor exceedances of criteria pollutant concentrations in the environment. The proposed project area is designated as a non-attainment area for O_3, PM_{10}, and $PM_{2.5}$. The project area is also categorized as a maintenance area for CO. Table 3 presents the last three years of monitoring data to illustrate the air pollutant concentration trends for the pollutants of concern. The concentrations collected from nearby air quality monitoring stations show that O_3 has exceeded both state and federal standards for the last three years. $PM_{2.5}$ and PM_{10} concentrations increased from 2010 to 2011, but decreased to below state and federal standards in 2012. CO concentrations for the past three years have been well below state and federal standards.

Table 3. Ambient Air Quality at Nearby Air Monitoring Stations

	Ozone		Carbon Monoxide		$PM_{2.5}$ [1]	PM_{10}
	Max 1-hour Conc. (ppm)	Max 8-hour Conc. (ppm)	Max 1-hour Conc. (ppm)	Max 8-hour Conc. (ppm)	Max 24-hour Conc. (ppm)	Max 24-hour Conc. (ppm)[c]
Monitoring Station Location	5888 Mission Blvd., Rubidoux		7002 Magnolia Ave., Riverside		7002 Magnolia Ave., Riverside	5888 Mission Blvd., Rubidoux
Federal Standard	**No Federal Standard**	**0.075 ppm**	**35 ppm**	**9 ppm**	**35 μg/m³**	**150 μg/m³**
2012	0.126	0.102	2.7	1.5	30.2	67
2011	0.128	0.115	3.1	1.5	51.6	82
2010	0.128	0.098	2.5	1.7	43.7	75
State Standard	**0.09 ppm**	**0.07 ppm**	**20 ppm**	**9 ppm**	**35 μg/m³**	**50 μg/m³**
2012	0.126	0.102	2.7	1.5	30.2	67
2011	0.128	0.115	3.1	1.5	51.6	82
2010	0.128	0.098	2.5	1.7	43.7	75

Source: EPA web page, http://www.epa.gov/airdata/ad_rep_mon.html
Note:

1. Monitoring data was not available for the annual $PM_{2.5}$ emissions.

Criterion 1: Regional Construction and Operational Emission Impacts

As noted from the information provided in the discussion above, the Project's regional construction and operational emission impacts would not exceed any of the SCAQMD's regional significance thresholds.

Criterion 2: Local Construction and Operational Emission Impacts

The estimation of local emissions focuses on the quantification of emissions generated from activities carried out only while on the Project site (e.g., from construction equipment and fugitive dust) and does not include emissions generated from off-site sources such as from worker vehicles and delivery trucks.

Local Short-Term Criteria Pollutant Construction Emissions

The localized significance thresholds applicable to the Project were derived from the SCAQMD mass rate daily emission tables for a 1 acre construction area (the approximate construction area) in SCAQMD source-receptor area 23 (Metropolitan Riverside County) where the Project is located. A receptor distance of approximately 200 feet from the Project fence line was also assumed as the distance to the nearest residences, which are located east of the Plaza Substation. Table 4 provides the localized significance threshold analysis results for construction compared to the SCAQMD local construction thresholds applicable to the proposed project.

Table 4. Estimated Maximum Daily Local Construction Emissions

Construction Activity	Emissions (pounds per day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Phase 1 - Plaza T5 Addition				
Site Preparation	12.58	8.68	0.82	0.81
Trenching	21.07	15.97	1.37	1.37
Infrastructure Construction	16.33	10.77	1.04	1.04
Aggregate Paving	13.77	9.69	1.1	1.1
Localized Threshold[1]	148	887	12	4
Significant Impact?	no	no	no	no
Phase 2 - 4-12 kV Conversion				
Site Preparation	11.79	8.65	0.84	0.73
Grading	13.02	9.35	2.45	1.77
Trenching	21.07	15.97	1.37	1.37
Localized Threshold[1]	148	887	12	4
Significant Impact?	no	no	no	no
Phase 3 - Distribution feeders				
Site Preparation	11.79	8.65	0.73	0.73
Trenching	21.07	15.97	1.37	1.37
Localized Threshold[1]	148	887	12	4
Significant Impact?	no	no	no	no
Phase 4 - Transmission Line				
Site Preparation	11.79	8.65	0.84	0.73
Trenching	21.07	15.97	1.37	1.37
Localized Threshold[1]	148	887	12	4
Significant Impact?	no	no	no	no
Phase 5 - Magnolia Substation Demo/Decommission				
Demolition	13.02	9.35	0.94	0.94
Localized Threshold[1]	148	887	12	4
Significant Impact?	no	no	no	no

Source: Entech Consulting Group, 2013

Note:

1) Localized threshold is based on the project size of 1 acre and distance to the nearest sensitive receiver location, approximately 200 feet from the Plaza Substation property line.

As noted from the results shown in Table 4, the construction of the proposed Project would not exceed the SCAQMD's localized significance thresholds. Thus, the project would not cause any violations of any air quality standard or contribute substantially to an existing or project air quality violation.

Local Short-Term Greenhouse Gas Construction Emissions

Greenhouse gas emissions from construction were estimated utilizing the CalEEMod model using emission rates developed by the SCAQMD and the type of construction activities discussed previously. Table 5 summarizes the carbon monoxide emission from the proposed project. Emissions of nitrous oxide and methane are negligible.

Table 5. Construction Greenhouse Gas Emissions

Phase of Construction	Emissions ($MTCO_2e$)
Phase 1 - Plaza T5 Addition	
Site Preparation	39.57
Trenching	24.09
Infrastructure Construction	44.73
Aggregate Paving	7.19
Phase 2 - 4-12 kV Conversion	
Site Preparation	3.3
Grading	1.6
Trenching	23.25
Phase 3 - Distribution feeders	
Site Preparation	3.3
Trenching	48.19
Phase 4 - Transmission Line	
Site Preparation	3.3
Trenching	24.09
Phase 5 - Magnolia Substation Demo/Decommission	
Demolition	50
Total	272.61
Total Amortized over 30-years	9.1

Source: Entech Consulting Group, 2013
1) and resources are available.

Local Long-Term Criteria Pollutant Operational Emissions

The proposed project provides upgrade of electrical transmission and distribution equipment to an existing substation. No new emissions are expected to be generated from onsite operational activities, and therefore, the local operational emissions are less than significant. Thus, the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Long-Term Operational Greenhouse Gas Emissions

Operational emissions occur over the life of the project. However, since the proposed project involves the upgrade of transmission and distribution equipment, no new vehicle trips are expected to be generated. The only new greenhouse gas emissions to be generated during operation of the proposed project are from the potential leakage of sulfur hexafluoride gas from the operation of the circuit breakers and transformers. Information from Casa Blanca Substation Initial Study (Michael Brandman Associates, 2010) indicates that maximum capacity of each breaker is 33 pounds of sulfur hexafluoride gas. The manufacturers of the circuit breakers warrant a gas leak rate of less than 1 percent per year. Assuming that two breakers are in operation at 33 pounds per breaker, the total amount of sulfur hexafluoride in operation is 66 pounds. Assuming a leak rate of 1 percent per year, the sulfur hexafluoride leakage rate amounts to 0.66 pounds per year from the operation of the proposed project. This amount of sulfur hexafluoride leakage is equivalent to approximately 7.2 metric tons per year of CO_2e. The SCAQMD recommends amortizing the construction emissions over a 30-year time period. As shown in Table 6, the total greenhouse gas emissions from construction and operation are approximately 16.3 CO_2e per year, which is far below the 10,000 CO_2e threshold for industrial land uses as a screening threshold. Construction and operation emissions would therefore have a less than significant contribution to global climate change impacts.

Table 6. Construction and Operational Greenhouse Gas Emissions

Activity	Emissions ($MTCO_2e$)
Construction	9.1
Operation	7.2
Total	**16.3**

Notes: $MTCO_2e$=metric tons of carbon dioxide equivalent, converted from tons by multiplying 0.9072 and the global warming potential of 1.

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

Less than Significant Impact. The CEQA guidelines indicate that the Project would create a significant impact if it would "result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)." The region where the Project is located is a nonattainment area for PM_{10}, $PM_{2.5}$ and the ozone. The Project would contribute criteria pollutants to the area during short-term project construction. However, as detailed above, these emissions would be less than all SCAQMD regional and localized significance thresholds including emissions of NO_x and VOC, which are ozone precursors. Because short- and long- term emissions associated with the Project would be below SCAQMD thresholds, the Project's contribution of these pollutants would not be cumulatively considerable and would represent a less than significant impact. The Project is consistent with the current land use designated in the City of Riverside General Plan 2025 as well as consistent with the SCAQMD's AQMP. Finally, because the project impacts would not exceed any SCAQMD significance threshold, the impacts from the Project would not result in any cumulative health impacts either locally or regionally.

The project would not 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).

Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. The CEQA Guidelines indicate that a significant impact would occur if the project would expose sensitive receptors to substantial pollutant concentrations. Two criteria were used to address this impact question:

Criterion 1: Does the proposed project's local construction and operational emissions conform to the SCAQMD's localized significance thresholds?

Criterion 2: Would nearby sensitive receptors be exposed to substantial levels of toxic air contaminants?

Criterion 1: Local Construction and Operational Emission Impacts

As discussed previously above, the results of the localized significance assessment concluded that the construction or operation emissions would not exceed any of the SCAQMD's localized significance thresholds.

Criterion 2: Exposure to Substantial Levels of Toxic Air Contaminants

Construction activities would result in short-term, project-generated emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment used for site preparation (e.g., demolition, excavation, and grading); paving; and building construction). CARB identified diesel PM as a toxic air contaminant (TAC) in 1998. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to

TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with a project. For the proposed project, there would be few pieces of off-road, heavy-duty diesel equipment in operation, and the construction period would be short (approximately 12 months) when compared to a 70-year exposure period. When considering these facts combined with the highly dispersive properties of diesel PM and additional reductions in particulate emissions from newer construction equipment, as required by USEPA and CARB regulations, it can be concluded that TAC emissions during construction of the proposed project would not expose sensitive receptors to substantial emissions of TACs. There would be a less than significant impact and no mitigation is required.

Create objectionable odors affecting a substantial number of people?

Less than Significant Impact. Individual responses to odors are highly variable and can result in a variety of psychological effects (i.e., irritation, anger, or anxiety) to physiological (i.e., circulatory and respiratory effects, nausea, vomiting, and headache). Generally, the impact of an odor results from a variety of interacting factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works or visits; the type of activity they are engaged in, and the sensitivity of the impacted receptor.

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The Project does not contain land uses typically associated with emitting objectionable odors. Diesel exhaust and VOCs would be emitted during construction of the Project, which are objectionable to some; however, emissions would disperse rapidly from the Project site. The closest sensitive receptors consist of residences located 200 feet east of the existing substation. Because of the rapid dispersion of potentially objectionable odors, such odors should not reach a level to induce a negative response at any nearby sensitive receptor.

Thus, the Project would not create objectionable odors affecting a substantial number of people.

References

California Air Pollution Control Officers Association. *Quantifying Greenhouse Gas Mitigation Measures.* August 2010.

California Air Resource Board web page, www.arb.ca.gov

Environ International Corporation in coordination with South Coast Air Quality Management District and other Air Quality Districts. *California Emissions Estimator Model version 2011.1.* February 2011.

Google Maps web page, http://maps.google.com

Michael Brandman Associates. *Initial Study and Mitigated Negative Declaration Casa Blanca Power Project, City of Riverside, CA.* August 10, 2010.

South Coast Air Quality Management District web page, www.aqmd.gov

South Coast Air Quality Management District. *2012 Final Air Quality Management Plan.* December 2012.

South Coast Air Quality Management District. *Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group #15 (slide presentation)*. Diamond Bar, CA. SCAQMD. http://www.aqmd.gov/ceqa/handbook/GHG/2010/ sept28mtg/ghgmtg15-web.pdf. September 28, 2010.

U.S. Environmental Protection Agency web page. Air Section, www.epa.gov

Appendix B

MSHCP Habitat Assessment Report

MSHCP Habitat Assessment Report for the Magnolia-Plaza Reliability Project,

City of Riverside, Riverside County, California

Prepared for:
RBF Consulting, a company of
Michael Baker Corporation
9755 Clairemont Mesa Blvd., MS 524
San Diego, CA 92124

Prepared by:
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008

Author: Felicia Griego, B.S.

July 19, 2013

rincon

Environmental Scientists Planners Engineers

F. Griego
2013 *Biological Resources Assessment for the Magnolia-Plaza Substation Project, Riverside County, California*. Rincon Consultants Project No. 12-00409.

Magnolia-Plaza Substation Project

Table of Contents

Photographs

Appendices

EXECUTIVE SUMMARY

Purpose and Scope

Rincon Consultants (Rincon) was retained by RBF Consulting to conduct a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Habitat Assessment for the Magnolia-Plaza Substation Project (project), which proposes upgrade of the Plaza Substation, demolition of the Magnolia Substation, and upgrading of all Magnolia circuits from 4 kilovolt (kV) to 12kV. The report was completed to document the existing conditions on the project site and determine potential impacts to sensitive biological resources and compliance with the MSHCP based upon proposed project plans. This report has been prepared in conformance with the California Environmental Quality Act (CEQA) and included a records search, literature review, field assessment, and reporting.

The project site is developed and contains non-native ruderal vegetation, non-native trees, and landscaping. No sensitive resources were found within the project sites and no sensitive resources are anticipated to occur during project activities. No sensitive plant communities are located within the project site and no regional wildlife linkages or corridors are mapped within or near the project site. Project implementation will not interfere with the provisions of the MSHCP. Therefore, potential project impacts to these sensitive resources would be less than significant.

The Magnolia Substation contains suitable habitat for nesting birds. To minimize impacts to nesting birds, Rincon recommends the following mitigation: Ground disturbing and vegetation removal activities should be conducted outside of the nesting bird season (generally February to September). If project activities must occur during the nesting season, a nesting bird survey should be conducted within 7 days prior to any ground disturbing activities to determine if any nesting birds occur within the project site. If nesting birds are not found within the project site, no further actions are required. If nesting birds are observed on site, no impacts shall occur within 250 feet (500 feet for raptors) of any active nests. Construction activity may only occur within 250 feet of an active nest at the discretion of a biological monitor.

1.0 INTRODUCTION

Rincon Consultants (Rincon) was retained by RBF Consulting, a company of Michael Baker Corporation to conduct a MSHCP Habitat Assessment for the Magnolia-Plaza Substation Project of two substation sites and their circuit routes for the Magnolia-Plaza Substation Project (project) located in the City of Riverside. The field survey of both substations was conducted on July 1, 2013.

The project site is generally located north of Lake Matthews, east and west of State Route 91, south of State Route 60 (Figure 1). The Plaza Substation site is located at 3716 Elizabeth Street, along Magnolia Avenue within Section 34, Township 2 South, Range 5 West (Figure 2a). The Magnolia Substation site is located at 3416 Central Avenue where it meets the Riverside Freeway (State Route 91), within Section 35, Township 2 South, Range 5 West. Both project sites are located on the Riverside West USGS 7.5 Minute Topographic quadrangle. The project is subject to the California Environmental Quality Act.

The project proposes changes to two substation sites, the Magnolia Substation and the Plaza Substation. The Magnolia Substation, built in 1949, will be demolished and the lot rough graded after demolition. In addition, a new block wall fence will be constructed around the perimeter. Facility upgrades to the Plaza Substation, built in 1965, include an approximately 23,668-square-foot expansion. This addition will include a new T5 transformer and switchgear, a perimeter 10-foot-tall block wall, and landscaping around the front of the substation. In addition, all Magnolia circuits will be converted from 4 to 12 kilovolts (kV). Conversion of the circuits from 4 to 12 kV will comprise the reconductoring of overhead wires, replacing overhead insulators and transformers, replacing some of the existing poles, and installing pad-mounted equipment in specific locations.

2.0 METHODOLOGY

The Habitat Assessment and Consistency Analysis for the proposed project included a review of relevant literature followed by a field survey. The literature review included a query of the Riverside County Integrated Project (RCIP) Conservation Summary Report Generator to determine potential MSHCP sensitive species survey and conservation requirements for the project site. If sensitive species survey requirements were identified by the RCIP, the California Natural Diversity Data Base (CNDDB) and Biogeographic Information and Observation System (BIOS – www.bios.dfg.ca.gov) were reviewed to determine the closest recorded species locations. In addition, the MSHCP was reviewed for information pertaining to sensitive plant and wildlife species, sensitive habitat, riparian/riverine areas, vernal pools and the Urban/Wildlands interface. Site plans provided by the client, aerial photographs, topographic maps, and soil survey maps were also examined.

The field survey documented existing site conditions and the potential presence of sensitive biological resources, including sensitive plant and wildlife species, sensitive plant communities, jurisdictional waters and wetlands, and habitat for nesting birds. The biologist surveyed the project site on foot including an additional 100 foot survey area, and recorded the biological resources present on-site such as plant and wildlife species.

The potential presence of sensitive species is based on a literature review and field survey designed to assess habitat suitability only. Definitive surveys to confirm the presence or absence of special-status species were not performed. Definitive surveys for sensitive plant and wildlife species generally require specific survey protocols and extensive field survey time, and are conducted only at certain times of the year. The findings and opinions conveyed in this report are based on this methodology.

3.0 EXISTING SITE CONDITIONS

3.1 ENVIRONMENTAL SETTING

The field survey was conducted on July 1, 2013, between the hours of 1300 and 1430. Weather conditions during the survey included an average temperature of 97 degrees Fahrenheit, with calm winds of zero to two miles per hour and 50 percent cloud cover.

The Plaza Substation site is situated at an elevation of 257.5 meters (845 feet) above mean sea level (AMSL) and the Magnolia Substation site is at an elevation of 263.4 meters (864 feet) AMSL. The project site is located within an area that has been developed or disturbed for many decades.

3.2 SOILS

The soil mapped on the Plaza Substation is Arlington loam, 2 to 5 percent slopes and the Magnolia Substation is Arlington loam, 0 to 5 percent slopes (United States Department of Agriculture, WebSoilSurvey.com). The Arlington series consists of well drained alluvial soils derived from granite. These soils these soils are not listed as sensitive in the MSHCP and do not provide suitable habitat for any sensitive plant species.

3.3 PLANT COMMUNITIES

The proposed project potentially affects three distinct vegetation communities or land features described below. There were no native plant species observed within the project area.

3.3.1. Developed

Areas classified as developed include paved areas and areas with infrastructure that no longer provide habitat for any plant revegetation. The Plaza Substation contains no bare ground and is covered by crushed rock and concrete foundations. No vegetation was observed within the substation boundary (Photograph 1). The Magnolia Substation contains areas of asphalt and concrete foundations (Photographs 2 and 3).

3.3.2. Ruderal

Areas mapped as ruderal are characterized as disturbed areas that are dominated by non-native plant species adapted to disturbance. The Plaza Substation expansion area consists of bare

ground and is highly disturbed by dumping and grading (Photograph 4). Common species observed in this area include prickly Russian thistle (*Kali tragus*), leporinum barley (*Hordeum murinum* ssp. *leporinum*), red-stemmed filaree (*Erodium cicutarium*), red brome grass (*Bromus rubens*), and horseweed (*Conyza canadensis*).The Magnolia Substation includes open area with bare ground surrounding the substation infrastructure. Vegetation in this area was sparse and limited to the fence line (Photograph 5). Common species observed in this area include leporinum barley, red-stemmed filaree, and prickly Russian thistle.

Photograph 1. Developed area within Plaza Substation, facing southwest. (7/1/2013)

Photograph 2. Developed area within Magnolia Substation, facing north. (7/1/2013)

Photograph 3. Asphalt driveway within Magnolia Substation, facing northeast. (7/1/2013)

Photograph 4. Plaza Substation expansion area, facing south (7/1/2013)

3.3.3. Landscaped

Both substations had minimal landscaping around the entrance. The landscaping contains non-native trees and shrubs including India Hawthorne (*Rhaphiolepis indica*) and redbud (*Cecis canadensis*) at Magnolia Substation (Photograph 6) and crape myrtle (*Lagerstroemia* sp.) at both

Plaza and Magnolia Substations. The landscaped area of Magnolia substation also includes daylilies (*Hemerocallis* sp.).

Photograph 5. Magnolia Substation, facing south (7/1/2013)

Photograph 6. Magnolia Substation landscaped entrance, facing southwest (7/1/2013)

3.4 JURISDICTIONAL WATERS

The United States Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into waters of the United States. The State of California also regulates waters of the State and streambeds under regional board and CDFG jurisdiction. These waters include wetlands and non-wetland bodies of water that meet specific criteria. The project site does not contain features that are jurisdictional under the Clean Water Act or State regulation for isolated waters or streambeds.

3.5 NESTING BIRDS

The project site contains minimal suitable nesting habitat for avian species. The MSHCP does not cover impacts to nesting birds; however, they are protected under section 3503 of CDFW code or the Migratory Bird Treaty Act (MBTA). Few bird species were observed within the project area during the survey due to the high heat. Birds observed include American crow (*Corvus brachyrhynchos*) and rock pigeon (*Columba livia*). No nests were observed within the project area.

3.6 MSHCP

The project site is within APNs 223150009, 225052008, 225052010, 225052019, 225052021, 225064001, 225064002, and 225064003 within the Cities of Riverside and Norco Area Plan. The project site is not within a Cell or any designated survey areas for sensitive species (Figure 2). The project site does not contain any riverine/riparian habitat, vernal pools or Urban/ Wildlands interface areas.

4.0 PROJECT IMPACTS

The project will result in the removal of ruderal vegetation within the expansion area of the Plaza Substation. No impacts to sensitive species will occur with the development of this area. There is a potential for nesting birds to utilize the non-native shrubs and trees within the landscaped entrance of the Magnolia Substation. Potential impacts to nesting birds can be minimized if vegetation removal is conducted outside of the nesting bird season, which is generally February to September. A CNDDB query was performed for the project (Figure 2). In conjunction with the CNDDB and survey results, no special status species were identified as having the potential to occur on site.

5.0 MSHCP CONSISTENCY ANALYSIS

5.1 MSHCP REQUIREMENTS

The proposed project site is located in the City of Riverside and is not within an MSHCP Criteria Cell. The MSHCP establishes habitat assessment requirements for certain species of plants, birds, mammals, and amphibians. Since the project is not within a mammal, amphibian survey area or riparian/riverine area, no additional analysis is required for this project.

5.1.1 Urban/Wildlands Interface Guidelines

According to the MSHCP, the Urban/Wildlands Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area (MSHCP, p 6-42). The project site is not within the vicinity of a conservation area and the Urban/Wildlife Interface Guidelines are not applicable.

5.1.2 - Sensitive Plant Species

The project site is not within the MSHCP Narrow Endemic Plant Species or Criteria Area Species Survey Areas. No rare plants found within the project area and no suitable habitat for rare plants is located within the project area.

5.2 JURISDICTIONAL WATERS

There are no jurisdictional drainages within the project area.

5.2.1 Riparian/Riverine Habitat

There is no riparian/riverine habitat found within the project site.

5.2.2 Riparian/Riverine Species

None of the riparian/riverine species listed in Section 6.1.2 of the MSHCP were found within the project site.

5.2.3 - Vernal Pools/Fairy Shrimp Habitat

No depressions or areas where water would pool were observed within the project site. No vernal pools occur on the project site and there is no suitable habitat for fairy shrimp to occur.

6.0 RECOMMENDATIONS

Based on the results of the records search and field survey, Rincon Consultants recommends no further biological studies for the Magnolia-Plaza Substation Project. The conversion from 4 to 12 kV will take place on existing lines, and therefore will not have a significant impact on biological resources. The decommissioning of the Magnolia Substation may impact nesting birds if vegetation is removed during nesting season. The measure listed below is recommended to mitigate potential impacts to nesting birds.

6.1 NESTING BIRDS

Ground disturbing and vegetation removal activities should be conducted outside of the nesting bird season (generally February to September). If project activities must occur during the nesting season, a nesting bird survey should be conducted within 7 days prior to any

ground disturbing activities to determine if any nesting birds occur within the project site. If nesting birds are not found within the project site, no further action is required. If nesting birds are observed on site, no impacts shall occur within 250 feet (500 feet for raptors) of any active nests. Construction activity may only occur within 250 feet of an active nest at the discretion of a biological monitor.

7.0 REFERENCES

American Ornithologists' Union
2013. Check-list of North American Birds. Electronic document. http://www.aou.org/checklist/north/print.php Accessed July 2013.

Calflora
2013. Information on wild California plants for conservation, education, and appreciation. Berkeley, CA. http://www.calflora.org Accessed July 2013

California Department of Fish and Wildlife (CDFW)
2003. California Natural Diversity Database, Rarefind v. 4. Updated July 2013.

CDFW
2013a. Biogeographic Information and Observation System (BIOS). http://bios.dfg.ca.gov Accessed July 2013.

CDFW
2013b. Special Vascular Plants, Bryophytes, and Lichens List. Biogeographic Data Branch, California Natural Diversity Database. January 2013.

CNPS
2013. Inventory of Rare and Endangered Plants (online edition, v8-01a). California Native Plant Society. Sacramento, CA. http://www.rareplants.cnps.org Accessed July 2013.

NRCS
2013. Web Soil Survey. Soil Survey Area: Riverside, Ca. Soil Survey Data: Version 8, August 27, 2009. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx Accessed July 2013.

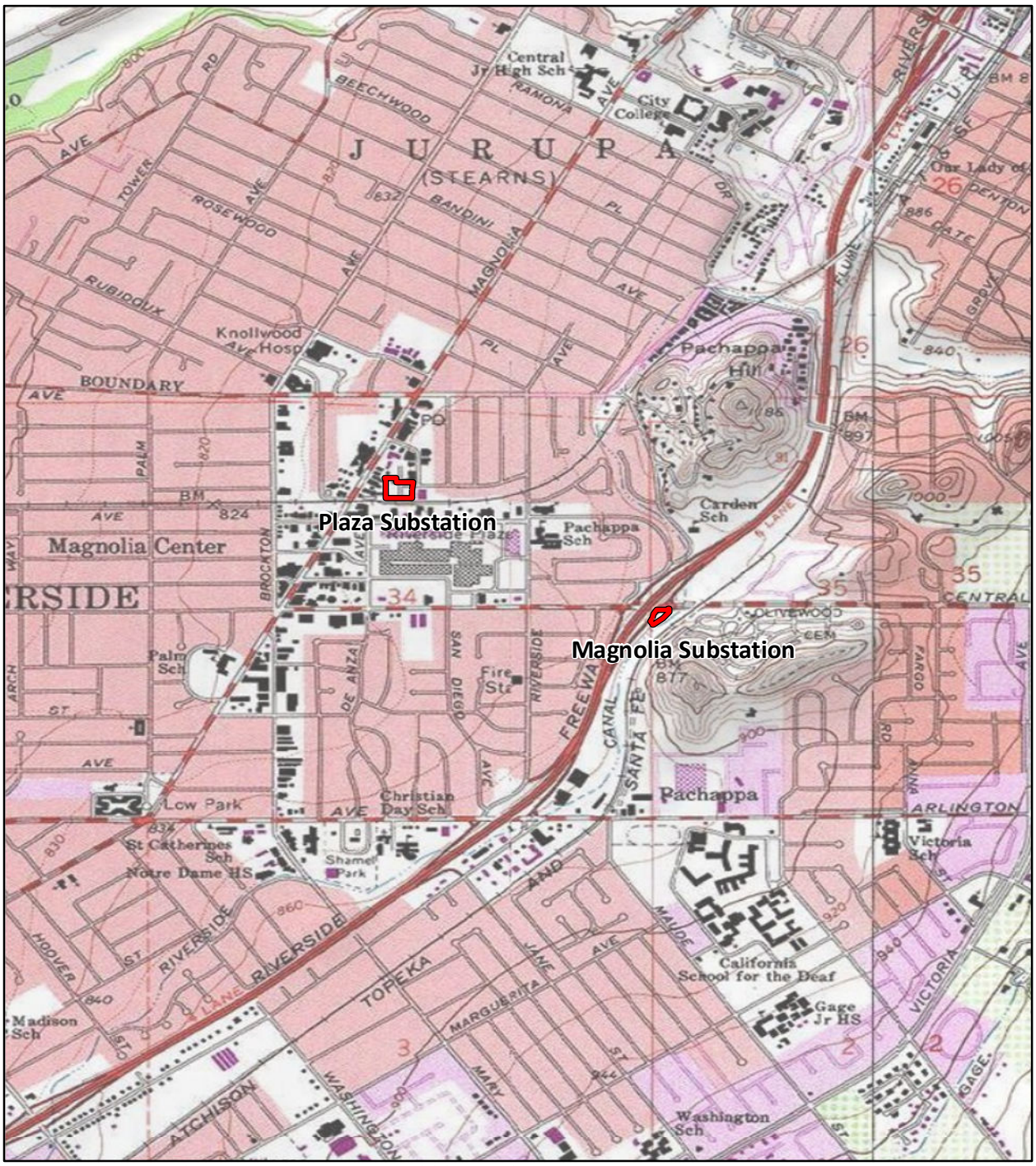
United States Fish and Wildlife Service (USFWS).
2013a. Critical Habitat Portal. http://criticalhabitat.fws.gov Accessed July 2013

USFWS.
2013b. Species list generator. http://www.fws.gov/sacramento/es_species/Lists/es_species_lists-form.cfm Accessed July 2013

University of California, Berkeley (UCB).
2013. The Jepson Online Interchange – California Floristics. http://ucjeps.berkeley.edu/interchange Accessed July 2013

Appendix A

Figure 1, Project Location



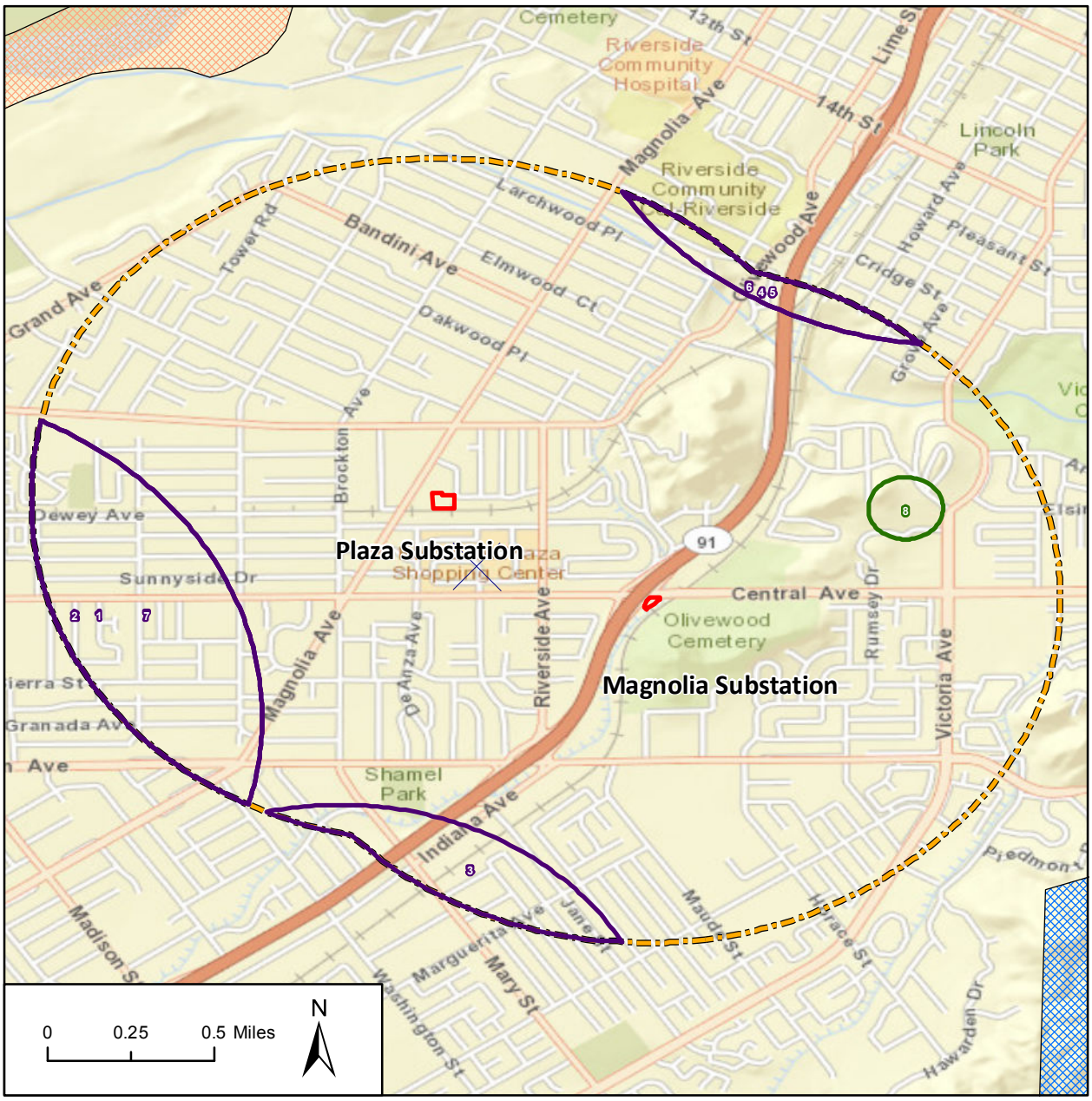
Imagery provided by ESRI and its licensors, 2013. USGS Topo, Copyright: © 2013 National Geographic Society. Riverside West Quadrangle. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Project Location

Figure 1

Appendix B

Figure 2, Sensitive Elements Reported by the California Natural Diversity Database



Basemap Sources: Imagery provided by ESRI and its licensors © 2013. Additional data layers from California Natural Diversity Database, July 2013 and U.S. Fish and Wildlife Service, April 2013. Critical habitat shown is that most recently available from U.S. FWS. Check with U.S. FWS or Federal Register to confirm. Note - Map to be printed in color, due to subtleties in symbology noticeable only on color version.

- Project Area
- 1-Mile Buffer
- Animals
- Plants

Final Critical Habitat

- Coastal California gnatcatcher
- Santa Ana sucker

1 - western yellow bat
2 - pocketed free-tailed bat
3 - San Bernardino kangaroo rat
4 - orangethroat whiptail
5 - red-diamond rattlesnake
6 - Desert cuckoo wasp
7 - Busck's gallmoth
8 - Nevin's barberry

Sensitive Elements Reported by the California Natural Diversity Database

Figure 2

Appendix C

C-1 Archaeological Resources Study

C-2 Historic Resources Assessment Report

C-3 Paleontological Resources Study

C-1 Archaeological Resources Study

Archeological Resources Study for the Magnolia-Plaza Reliability Project,

City of Riverside, Riverside County, California

U.S.G.S. *Riverside West, CA* quadrangle

Prepared for:
RBF Consulting, a company of
Michael Baker Corporation
9755 Clairemont Mesa Blvd., MS 524
San Diego, CA 92124

Prepared by:
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008

Authors: Hannah Haas, B.A., Kevin Hunt, B.A.,
and Robert Ramirez, M.A., RPA

July 18, 2013

Keywords: Riverside West, CA quadrangle; Magnolia Substation; Plaza Substation; negative findings; no impacts

H. Haas, K. Hunt, and R. Ramirez
2013 *Archaeological Resources Study for the Magnolia-Plaza Reliability Project, City of Riverside, Riverside County, California*. Rincon Consultants Project No. 12-00409. Report on file at the Eastern Information Center, Riverside, California.

Archaeological Resources Study
Magnolia-Plaza Reliability Project

Table of Contents

Tables

Photographs

Appendices

EXECUTIVE SUMMARY

Rincon Consultants (Rincon) was retained by RBF Consulting to conduct an archaeological survey for the proposed Magnolia-Plaza Reliability Project, which is intended to convert the 4 kilovolt (kV) circuits in the Magnolia neighborhood to 12kV infrastructure resulting in the demolition of Magnolia Substation and upgrade of Plaza Substation. The latter involves installation of new equipment that will provide the capacity needed to serve customers currently served by the Magnolia Substation. This study has been prepared in conformance with the California Environmental Quality Act (CEQA) and included a records search, Native American scoping, intensive pedestrian survey, and reporting. A companion historic built environment resources study was prepared by Daly and Associates for the project (Daly 2013) and also a separate Paleontological Resources Study (Daitch and Haas, Rincon Consultants 2013).

During the records search, 17 previously recorded cultural resources were identified within a 0.5-mile radius of the two project locations. No resources were identified within the project sites during the records search. No archaeological resources were identified during the pedestrian survey.

Based on the results of the cultural resources records search, Native American scoping, and archaeological survey, no further archaeological resources work is recommended for the project. The following standard measures are recommended in case of unanticipated discoveries.

Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's *Professional Qualifications Standards* for archaeology (National Park Service [NPS] 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

Unanticipated Discovery of Human Remains

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the Riverside County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

1.0 INTRODUCTION

Rincon Consultants (Rincon) was retained by RBF Consulting, a company of Michael Baker Corporation, to conduct an archaeological resources study of the proposed Magnolia-Plaza Reliability Project (project) for the City of Riverside. The project is intended to convert the 4kV circuits in the Magnolia neighborhood to 12kV infrastructure resulting in the demolition of Magnolia Substation and upgrade of Plaza Substation. The latter involves installation of new equipment that will provide the capacity needed to serve customers currently served by the Magnolia Substation. The archaeological survey of both substations was conducted on July 1, 2013.

The project proposes changes to two medium-voltage electrical substation sites, the Magnolia Substation and the Plaza Substation. The Magnolia Substation, built in 1949, will be demolished and the lot rough graded after demolition. In addition, a new block wall fence will be constructed around the perimeter. Facility upgrades to the Plaza Substation, built in 1965, include an approximately 23,668-square-foot expansion. This addition will include a new T5 transformer and switchgear, a perimeter 10-foot-tall block wall, and landscaping around the front of the substation. In addition, all Magnolia electrical circuits will be converted from 4 to 12 kilovolts (kV). Conversion of the circuits from 4 to 12 kV will comprise the reconductoring of overhead wires, replacing overhead insulators and transformers, replacing some of the existing poles, and installing pad-mounted equipment in specific locations. The Magnolia Substation is located at 3416 Central Avenue; the Plaza Substation site is located at 3716 Elizabeth Street, both in the City of Riverside, Riverside County, California. (Figure 1). The project is subject to the California Environmental Quality Act (CEQA).

1.1 REGULATORY SETTING

1.1.1 State

CEQA defines a *historical resource* as a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR) (Public Resources Code [PRC], Section 21084.1), a resource included in a local register of historical resources (PRC, Section 15064.5[a][2]), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][3]). For the purposes of CEQA, the term *historical resource* includes significant prehistoric archaeological resources.

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (PRC, Section 21084.1). If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and [c]).

PRC, Section 21083.2(g) defines a *unique archaeological resource* as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2) Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

1.1.2 Local

The City of Riverside General Plan 2025 includes cultural resource regulations in its Historic Preservation Element (HP) and Land Use Element (LU).

Historic Preservation Element Policies:

> Policy HP-1.1: The City shall promote the preservation of cultural resources to ensure that citizens of Riverside have the opportunity to understand and appreciate the City's unique heritage.
>
> Policy HP-1.3: The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable State and federal cultural resources protection and management laws in its planning and project review process.
>
> Policy HP-2.1: The City shall actively pursue a comprehensive program to document and preserve historic buildings, structures, districts, sites (including archaeological sites), objects, landscapes, and natural resources.
>
> Policy HP-2.3: The City shall provide information to citizens, and the building community about what to do upon the discovery of archaeological resources and burial sites, as well as, the treatment, preservation, and repatriation of such resources.

Land Use Element Policies:

> Policy LU-4.6: Ensure protection of prehistoric resources through consultations with the Native American tribe(s) identified by the Native American Heritage Commission pursuant to Government Code § 65352.3 and as required by the California Environmental Quality Act.

1.2 PERSONNEL

Rincon Cultural Resources Program Manager Kevin Hunt, B.A., managed the cultural resources study and serves as a coauthor of this report. Rincon archaeologist Hannah Haas requested the records search, conducted the Native American consultation, conducted the field survey, and was the primary author of this report. Rincon Cultural Resources Principal Investigator Robert Ramirez, M.A., Registered Professional Archaeologist (RPA), served as principal investigator for the study and coauthored the report. Mr. Ramirez meets the Secretary of the Interior's *Professional Qualification Standards* for prehistoric and historic archaeology (NPS 1983).

Administrative Assistant Stephanie Flores assisted with Native American consultation. GIS Analyst Katherine Warner, B.A. and B.S., prepared the figures found in the report.

2.0 ENVIRONMENTAL SETTING

The Magnolia-Plaza Reliability Project area is located within the corporate limits of the City of Riverside. The Plaza Substation site is situated at an elevation of 257.5 meters (845 feet) above mean sea level (AMSL) and is surrounded by commercial development. The Magnolia Substation site is at an elevation of 263.4 meters (864 feet) AMSL and is surrounded by commercial development and the Olivewood Cemetery. The circuits to be upgraded are located within an urban setting including commercial and residential land uses.

3.0 CULTURAL SETTING

3.1 PREHISTORY

During the twentieth century, many archaeologists developed chronological sequences to explain prehistoric cultural changes within all or portions of southern California (c.f., Jones and Klar 2007; Moratto 1984). Wallace (1955, 1978) devised a prehistoric chronology for the southern California coastal region based on early studies and focused on data synthesis that included four horizons: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Though initially lacking the chronological precision of absolute dates (Moratto 1984:159), Wallace's (1955) synthesis has been modified and improved using thousands of radiocarbon dates obtained by southern California researchers over recent decades (Byrd and Raab 2007:217; Koerper and Drover 1983; Koerper et al. 2002; Mason and Peterson 1994). The prehistoric chronological sequence for southern California presented below is a composite based on Wallace (1955) and Warren (1968) as well as later studies, including Koerper and Drover (1983).

3.1.1 Early Man Horizon (ca. 10,000 – 6,000 B.C.)

Numerous pre-8000 B.C. sites have been identified along the mainland coast and Channel Islands of southern California (c.f., Erlandson 1991; Johnson et al. 2002; Jones and Klar 2007; Moratto 1984; Rick et al. 2001:609). The Arlington Springs site on Santa Rosa Island produced human femurs dated to approximately 13,000 years ago (Arnold et al. 2004; Johnson *et al.* 2002). On nearby San Miguel Island, human occupation at Daisy Cave (SMI-261) has been dated to nearly 13,000 years ago and included basketry greater than 12,000 years old, the earliest on the Pacific Coast (Arnold et al. 2004).

Although few Clovis or Folsom style fluted points have been found in southern California (e.g., Dillon 2002; Erlandson et al. 1987), Early Man Horizon sites are generally associated with a greater emphasis on hunting than later horizons. Recent data indicate that the Early Man economy was a diverse mixture of hunting and gathering, including a significant focus on aquatic resources in coastal areas (e.g., Jones et al. 2002) and on inland Pleistocene lakeshores (Moratto 1984). A warm and dry 3,000-year period called the Altithermal began around 6000

B.C. The conditions of the Altithermal are likely responsible for the change in human subsistence patterns at this time, including a greater emphasis on plant foods and small game.

3.1.2 Milling Stone Horizon (6000–3000 B.C.)

Wallace (1955:219) defined the Milling Stone Horizon as "marked by extensive use of milling stones and mullers, a general lack of well-made projectile points, and burials with rock cairns." The dominance of such artifact types indicate a subsistence strategy oriented around collecting plant foods and small animals. A broad spectrum of food resources were consumed including small and large terrestrial mammals, sea mammals, birds, shellfish and other littoral and estuarine species, near-shore fishes, yucca, agave, and seeds and other plant products (Kowta 1969; Reinman 1964). Variability in artifact collections over time and from the coast to inland sites indicates that Milling Stone Horizon subsistence strategies adapted to environmental conditions (Byrd and Raab 2007:220). Lithic artifacts associated with Milling Stone Horizon sites are dominated by locally available tool stone and in addition to ground stone tools, such as manos and metates, chopping, scraping, and cutting tools, are very common. Kowta (1969) attributes the presence of numerous scraper-plane tools in Milling Stone Horizon collections to the processing of agave or yucca for food or fiber. The mortar and pestle, associated with acorns or other foods processed through pounding, were first used during the Milling Stone Horizon and increased dramatically in later periods (Wallace 1955, 1978; Warren 1968).

Two types of artifacts that are considered diagnostic of the Milling Stone period are the cogged stone and discoidal, most of which have been found within sites dating between 4,000 and 1,000 B.C. (Moratto 1984:149), though possibly as far back as 5,500 B.C. (Couch et al. 2009). The cogged stone is a ground stone object that has gear-like teeth on the perimeter and is produced from a variety of materials. The function of cogged stones is unknown, but many scholars have postulated ritualistic or ceremonial uses (c.f., Dixon 1968:64-65; Eberhart 1961:367) based on the materials used and their location near to burials and other established ceremonial artifacts as compared to typical habitation debris. Similar to cogged stones, discoidals are found in the archaeological record subsequent to the introduction of the cogged stone. Cogged stones and discoidals were often purposefully buried, or "cached." They are most common in sites along the coastal drainages from southern Ventura County southward and are particularly abundant at some Orange County sites, although a few specimens have been found inland at Cajon Pass (Dixon 1968:63; Moratto 1984:149). Discoidals and cogged stones have been found together at some Orange County sites, such as CA-ORA-83/86/144 (Van Bueren et al. 1989:772) and Los Cerritos Ranch (Dixon 1975). Cogged stones have been collected in Riverside County and their distribution appears to center on the Santa Ana River basin (Eberhart 1961).

3.1.3 Intermediate Horizon (3,000 B.C. – A.D. 500)

Wallace's Intermediate Horizon dates from approximately 3,000 B.C. - A.D. 500 and is characterized by a shift toward a hunting and maritime subsistence strategy, as well as greater use of plant foods. During the Intermediate Horizon, a noticeable trend occurred toward greater adaptation to local resources including a broad variety of fish, land mammal, and sea mammal remains along the coast. Tool kits for hunting, fishing, and processing food and materials reflect

this increased diversity, with flake scrapers, drills, various projectile points, and shell fishhooks being manufactured.

Mortars and pestles became more common during this transitional period, gradually replacing manos and metates as the dominant milling equipment. Many archaeologists believe this change in milling stones signals a change from the processing and consuming of hard seed resources to the increasing reliance on acorn (e.g., Glassow et al. 1988; True 1993). Mortuary practices during the Intermediate typically included fully flexed burials oriented toward the north or west (Warren 1968:2-3).

3.1.4 Late Prehistoric Horizon (A.D. 500–Historic Contact)

During Wallace's (1955, 1978) Late Prehistoric Horizon the diversity of plant food resources and land and sea mammal hunting increased even further than during the Intermediate Horizon. More classes of artifacts were observed during this period and high quality exotic lithic materials were used for small finely worked projectile points associated with the bow and arrow. Steatite containers were made for cooking and storage and an increased use of asphalt for waterproofing is noted. More artistic artifacts were recovered from Late Prehistoric sites and cremation became a common mortuary custom. Larger, more permanent villages supported an increased population size and social structure (Wallace 1955:223).

Warren (1968) attributes this dramatic change in material culture, burial practices, and subsistence focus to the westward migration of desert people he called the Takic, or Numic, Tradition in Los Angeles, Orange, and western Riverside counties. This Takic Tradition was formerly referred to as the "Shoshonean wedge" (Warren 1968), but this nomenclature is no longer used to avoid confusion with ethnohistoric and modern Shoshonean groups (Heizer 1978:5; Shipley 1978:88, 90). Modern Gabrielino/Tongva in western Riverside County are generally considered by archaeologists to be descendants of these prehistoric Uto-Aztecan, Takic-speaking populations that settled along the California coast during the Late Prehistoric Horizon.

3.2 ETHNOGRAPHIC OVERVIEW

The project is located within the Gabrielino/Tongva ethnographic territory (Bean and Smith 1978:538; Kroeber 1925: Plate 57). Adjacent native groups include the Chumash and Tataviam/Alliklik to the north, Serrano and Cahuilla to the east, and Juaneño to the south. The project area is specifically located within the southeastern corner of Gabrielino ethnographic territory near the contact zones with Cahuilla to the east, Serrano to the north, and Juaneño to the south (Bean and Smith 1978:538; Kroeber 1925:636). Archaeological, linguistic, and genetic evidence documents interaction between the Gabrielino and their neighbors in the form of intermarriage and trade. The term "Gabrielino" denotes those people who were administered by the Spanish at Mission San Gabriel, which included people from the traditional Gabrielino territory as well as other nearby groups (Bean and Smith 1978; Kroeber 1925). Many modern Gabrielino identify themselves as descendants of the indigenous people who lived within the Los Angeles Basin and refer to themselves as Tongva (King 1994:12). This term is used in the remainder of this section to refer to the contact period indigenous inhabitants of the Los

Angeles Basin and their descendants. Tongva lands encompassed the greater Los Angeles Basin and three Channel Islands: San Clemente, San Nicolas, and Santa Catalina (Bean and Smith 1978:538; Kroeber 1925:636).

The Tongva language belongs to the Takic branch of the Uto-Aztecan language family, which can be traced to the Great Basin region (Mithun 2004). This language family includes dialects spoken by the nearby Juaneño and Luiseño but is considerably different from those of the Chumash people living to the north and the Diegueño (including Ipai, Tipai, and Kumeyaay) people living to the south of the Tongva, Juaneño, and Luiseño. Tongva society was organized along patrilineal non-localized clans, a common Takic pattern. Each clan had a ceremonial leader and contained several lineages.

The Tongva established large permanent villages and smaller satellite camps in locations from the San Gabriel Mountains to the southern Channel Islands. Recent ethnohistoric work (O'Neil 2002) suggests a total tribal population of nearly 10,000, which is about twice that of earlier estimates of around 5,000 people (Bean and Smith 1978:540). The Riverside area was home to one recorded Tongva village during the late eighteenth century: *Hurumpa* or *Jurupa* (Kroeber 1925: Plate 57).

Tongva subsistence was oriented around acorns supplemented by the roots, leaves, seeds, and fruits of a wide variety of plants. Meat sources included large and small mammals, freshwater and saltwater fish, shellfish, birds, reptiles, and insects (Bean and Smith 1978; Langenwalter et al. 2001; Kroeber 1925; McCawley 1996). The Tongva employed a wide variety of tools and implements to gather and hunt food. The digging stick, used to extract roots and tubers, was frequently noted by early European explorers (Rawls 1984). Other tools included the bow and arrow, traps, nets, blinds, throwing sticks and slings, spears, harpoons, and hooks. Like the Chumash, the Tongva made oceangoing plank canoes (known as a *ti'at*) capable of holding six to 14 people and used for fishing, travel, and trade between the mainland and the Channel Islands. Tule reed canoes were employed for near-shore fishing (Blackburn 1963; McCawley 1996:117-127).

Chinigchinich, the last in a series of heroic mythological figures, was central to Tongva religious life at the time of Spanish contact (Kroeber 1925:637–638). The religion was spreading south among other Takic-speaking groups at the same time the Spanish were establishing Christian missions. Elements of Chinigchinich suggest it was a syncretic mixture of native and Christian belief and practices (McCawley 1996:143-144).

Prior to European contact and subsequent assimilation, deceased Tongva were either buried or cremated, with burial more common on the Channel Islands and the adjacent mainland coast and cremation on the remainder of the coast and in the interior (Harrington 1942; McCawley 1996:157). After pressure from Spanish missionaries, cremation essentially ceased during the post-Contact period (McCawley 1996:157).

3.3 HISTORIC OVERVIEW

Post-European contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present).

3.3.1 Spanish Period (1769–1822)

Juan Rodriguez Cabrillo in 1542 led the first European expedition to observe what is now called southern California. For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and Russian explorers sailed the Alta (upper) California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). Juan Bautista de Anza led an expedition through the Riverside area in 1774. De Anza's expedition created an overland travel route from Sonora, Mexico to Monterey in northern California (Lech 1998).

Gaspar de Portolá and Franciscan Father Junipero Serra established the first Spanish settlement in Alta California at Mission San Diego de Alcalá in 1769. This was the first of 21 missions erected by the Spanish between 1769 and 1823. Portolá continued north, passing through the project vicinity and reaching San Francisco Bay in 1769. On September 8, 1771, Fathers Pedro Cambón and Angel Somera established the Mission San Gabriel de Arcángel near the present-day city of Montebello (Johnson et al. 1972). The mission was moved in 1775 to its current location in San Gabriel due to better agricultural lands. Mission San Gabriel, despite a slow start partially due to misconduct by Spanish soldiers, eventually became so prosperous it was known as "The Queen of the Missions" (Johnson et al. 1972). During this period, Spain also deeded ranchos to prominent citizens and soldiers, though very few in comparison to the subsequent Mexican Period. To manage and expand their herds of cattle on these large ranchos, colonists enlisted the labor of the surrounding Native American population (Engelhardt 1927a). The missions were responsible for administrating to the local Indians as well as converting the population to Christianity (Engelhardt 1927b). The increased local population density and contact with diseases brought by Europeans greatly reducing the Native American population (McCawley 1996).

3.3.2 Mexican Period (1822–1848)

The Mexican Period commenced when news of the success of the Mexican Revolution (1810-1821) against the Spanish crown reached California in 1822. This period was an era of extensive interior land grant development and exploration by American fur trappers west of the Sierra Nevada Mountains. This period likely saw much more direct interaction between Native Americans and Europeans in what is now known as the Inland Empire area due to the secularization of the missions and land grants. Beginning in 1833, mission lands were conferred as rancho grants. Governor Pío Pico and his predecessors made more than 600 rancho grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time (Gumprecht 1999).

3.3.3 American Period (1848–Present)

The American Period officially began with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for the conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. Settlement of southern California continued dramatically in the early American Period. Many ranchos in the county were sold or otherwise acquired by Americans, and most were subdivided into agricultural parcels or towns.

The discovery of gold in northern California in 1848 led to the California Gold Rush, despite the first California gold being previously discovered in southern California at Placerita Canyon in 1842 (Guinn 1977; Workman 1935:26). Southern California remained dominated by cattle ranches in the early American period, though droughts and increasing population resulted in farming and more urban professions increasingly supplanting ranching through the late nineteenth century. In 1850, California was admitted into the United States and by 1853, the population of California exceeded 300,000. Thousands of settlers and immigrants continued to move into the state, particularly after completion of the transcontinental railroad in 1869.

City of Riverside

In 1870, investors from the Southern California Colony Association, solicited by John W. North, laid out a mile-square town site. The town was originally called Jurupa, but was changed to Riverside in 1871. A stream of agriculturalists, investors, and immigrants into the area was driven by the success of citrus crops. In the late 1800s, the California Fruit Growers Exchange, later Sunkist, was founded along with the Citrus Experimentation Station, making Riverside a key center of citrus machinery production. Riverside became a charter city in 1907, with a Mayor-Council form of government. A new City Charter was established in 1950, incited by population growth and city operating problems. A City Board of Freeholders was elected and a new Charter employing a Council-Manager form of government was implemented in 1952. Since the city's founding, Riverside has grown immensely and its economy has grown more diverse and multifaceted. Today, the Riverside-San Bernardino Metropolitan Area, the Inland Empire, is one of the most populous metropolitan areas in the country (City of Riverside 2011).

4.0 BACKGROUND RESEARCH

4.1 CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

At Rincon's request, on July 25, 2012, the Eastern Information Center (EIC) located at the University of California, Riverside completed a search of the California Historical Resources Information System (CHRIS). The search was conducted to identify all previously conducted cultural resources work within the project area and a 0.5-mile radius around it, as well as to identify previously recorded cultural resources within or near the project area. The CHRIS search included a review of the National Register of Historic Places (NRHP), the CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the

Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5- and 15-minute quadrangle maps.

The EIC records search identified eight previous studies within a 0.5-mile radius of the project area, one of which included a portion of the Magnolia Substation site. Two additional studies provide overviews of cultural resources in the general project vicinity. The National Archaeological Database listings for these studies are included with the records search summary in Appendix B.

Table 1
Previously Conducted Studies Within 0.5 Mile of the Project Area

EIC Report No.	Author	Year	Study	Proximity to Project Area
RI-00031	Gardener, Michael C.	1971	The Arlington Channel Flood Control Project Expected Impact on Archaeological Resources	Regional Overview
RI-03322	The Keith Companies	1988	State Route 91 Improvements Project: Historic Property Survey Report	Adjacent to Magnolia Substation
RI-03605	Wlodarski, Robert J.	1993	Draft Report: An Archaeological Survey Report Documenting the Effects of the RCIC I-215 Improvement Project in Moreno Valley, Riverside County to Orange Show Road in the City of San Bernardino, San Bernardino County, California	Within Magnolia Substation
RI-04125	Mason, Roger D., Philippe Lapin, and Wayne H. Bonner	1998	Cultural Resources Records Search and Survey Report for Pacific Bell Mobile Services Telecommunications Facility: CM 045-28, City of Riverside, California	Within 0.5 mile of both substations
RI-04370	Duke, Curt	1999	Letter Report: Cultural Resource Assessment for Pacific Bell Mobile Services Facility CM 492-14, County of Riverside, California	Within 0.5 mile of Plaza Substation
RI-04536	Duke, Curt	2001	Letter Report: Review of AT&T Fixed Wireless Facility Number RC_318_A, County of Riverside, California	Within 0.5 mile of both substations
RI-04813	National Park Service, HAER	1993	California Citrus Heritage Recording Project: Photographs, Written Historical and Descriptive Data, Reduced Copies of Measured Drawings For: Arlington Height Citrus Landscape, Gage Irrigation Canal, National Orange Company Packing House, Victoria Bridge, and Union Pacific Railroad Bridge	Regional Overview
RI-05312	White, Laurie S.	1999	Letter Report: Records Search Results for Sprint PCS Facility RV35XC098A (Magnolia Corp. Center), City of Riverside, Riverside County, California	Within 0.5 mile of both substations
RI-05313	Dice, Michael	2003	Phase I Cultural Resources Assessment and Paleontological Records Search: The Patterson Tract Project, City of Riverside, California	Within Magnolia Substation

Table 1
Previously Conducted Studies Within 0.5 Mile of the Project Area

EIC Report No.	Author	Year	Study	Proximity to Project Area
RI-08413	McKenna, Jeanette A.	2009	Letter Report: A Summary Report on the Proposed Improvements at the Pachappa Elementary School Campus in the City of Riverside, Riverside County, California	Within 0.5 mile of both substations

Source: Eastern Information Center, June 2013

The EIC records search identified 19 previously recorded historic cultural resources within 0.5 mile of the two substations (Table 2). Twelve (12) of these resources are within 0.5 miles of the Magnolia Substation. The remaining seven are located within 0.5 mile of the Plaza Substation. No cultural resources have been previously recorded within either of the substations. No previously recorded prehistoric cultural resources were identified within 0.5 mile of the substations.

Table 2
Previously Recorded Cultural Resources Within 0.5 Mile of the Project Area

Primary Number	Description	NRHP/CRHR Eligibility Status	Recorded By and Year	Proximity to Project Area
P-33-004495	Upper Riverside Canal	Code 6Y: Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or Local Listing.	Daniel Ballester 2009; Angie Gustafson and Mike McGrath 2001; Rick Starzak and Molly Fitzgerald 1996; Richard Starzak 1992; Robert Wlodarski and Dan Larson 1992; Patricia Jertberg 1991	Adjacent to Magnolia Substation
P-33-004791	Lower Riverside Canal	Recommended ineligible	Jeanette McKenna 2005; Evelyn N. Chandler 2002; Angie Gustafson 2001; Robert Wlodarski 1992	Within 0.5 mile of Plaza Substation
P-33-008227	McMahon Manufacturing Company Building	Insufficient information	Jean A. Keller, 1997	Within 0.5 mile of Magnolia Substation
P-33-009642	Single-family residence	Determined eligible for listing as a structure of merit	Bai “Tom” Tang, 2000	Within 0.5 mile of Plaza Substation
P-33-009692	Wood Streets historic neighborhood	Code 2D2: Contributor to a district determined eligible for NRHP by consensus through Section 106 process. Listed in the CRHR.	Alan Curl and John Flippen 1979	Within 0.5 mile of Plaza Substation

Table 2
Previously Recorded Cultural Resources Within 0.5 Mile of the Project Area

Primary Number	Description	NRHP/CRHR Eligibility Status	Recorded By and Year	Proximity to Project Area
P-33-011831	Olivewood Cemetery, Kaneko Family Plot	Code 7R: Identified in Reconnaissance Level Survey: Not evaluated	Michael Tanji 1980	Within 0.5 mile of Magnolia Substation
P-33-012823	6488/6494 Riverside Avenue; Single family residence, currently in use as a daycare facility	Recommended ineligible	Judith Marvin 2002	Within 0.5 mile of Magnolia Substation
P-33-012824	6476 Riverside Avenue; apartment complex	Recommended ineligible	Judith Marvin 2003	Within 0.5 mile of Magnolia Substation
P-33-012825	3454 Carlsbad Way; single family residence	Recommended ineligible	Judith Marvin 2002	Within 0.5 mile of Magnolia Substation
P-33-012826	3450 Carlsbad Way; single family residence	Recommended ineligible	Judith Marvin 2002	Within 0.5 mile of Magnolia Substation
P-33-012827	3449 Carlsbad Way; single family residence	Recommended ineligible	Judith Marvin 2002	Within 0.5 mile of Magnolia Substation
P-33-012828	3440 Bonita Avenue; single family residence	Recommended ineligible	Judith Marvin 2003	Within 0.5 mile of Magnolia Substation
P-33-012829	6382, 6374, 6358, 6352, and 6346/6348 Neva Street; tract residences	Recommended ineligible	Judith Marvin 2003	Within 0.5 mile of Magnolia Substation
P-33-012830	3419, 3429, 3425, 3421, and 3418 Sunnyside Drive; tract residences	Recommended ineligible	Judith Marvin 2003	Within 0.5 mile of Magnolia Substation
P-33-012841	3439 Arlington Avenue; concrete cinder block bowling alley	Recommended ineligible	Judith Marvin 2003	Within 0.5 mile of Magnolia Substation
P-33-014720	Palm Heights Historic District	Recommended eligible for CRHR	Jennifer Mermilliod 2004	Within 0.5 mile of Plaza Substation
P-33-016211	Kawa Market	Recommended ineligible for NRHP/CRHR, recommended eligible for local designation	Terri Jacquemain 2007	Within 0.5 mile of Plaza Substation

Table 2
Previously Recorded Cultural Resources Within 0.5 Mile of the Project Area

Primary Number	Description	NRHP/CRHR Eligibility Status	Recorded By and Year	Proximity to Project Area
P-33-016212	3772 Bandini Avenue; Single family residence	Code 2D2: Contributor to a district determined eligible for NRHP by consensus through Section 106 process. Listed in the CRHR.	Terri Jacquemain 2007	Within 0.5 mile of Plaza Substation
P-33-017825	Kawa Market (duplicated record)	Code 2D2: Contributor to a district determined eligible for NRHP by consensus through Section 106 process. Listed in the CRHR.	H. Vincent Moses and Catherine Whitmore 2007	Within 0.5 mile of Plaza Substation

Source: Eastern Information Center, June 2013

Review of the 1901 Riverside, Calif. 15′ Quadrangle identified no structures within either substation site.

4.2 NATIVE AMERICAN HERITAGE COMMISSION

Rincon Consultants initiated Native American coordination for this project on June 10, 2013. As part of the process of identifying cultural resources within or near the project area, we contacted the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File (SLF). The NAHC faxed a response on June 11, 2013 (Appendix C), and stated that a search of the SLF "failed to indicate the presence of Native American traditional cultural place(s) in the project site submitted." The NAHC provided a contact list of 16 Native American individuals or tribal organizations that may have knowledge of cultural resources in or near the project area. Rincon prepared and mailed letters (see example in Appendix C) to each of the NAHC-listed contacts on June 24, 2013, requesting information regarding any Native American cultural resources within or immediately adjacent to the project area.

Rose Duro, Culture Committee Chairman of the Rincon Band of Luiseño Indians, responded in a letter dated June 26, 2013, and stated that the project is "within the Aboriginal Territory of the Luiseño people, but it is not within Rincon's [the Rincon band's] Historic boundaries." Chairman Duro recommended that we contact the Pechanga Band of Luiseño Indians and the Soboba Band of Luiseño Indians. Letters regarding this project were sent to both of those groups.

As of July 18, 2013, no additional responses have been received.

5.0 FIELDWORK

5.1 SURVEY METHODS

Rincon archaeologist Hannah Haas conducted an archaeological resources survey of the two substations on July 1, 2013. The archaeological resources survey consisted of walking parallel transects oriented east-west and spaced no greater than five meters apart over both substation sites. No archaeological survey was conducted for the circuits because they are located along completely developed and paved alignments.

Ms. Haas examined all areas of exposed ground surface for prehistoric artifacts (e.g., chipped stone tools and production debris, stone milling tools, ceramics), historic debris (e.g., metal, glass, ceramics), or soil discoloration that might indicate the presence of a cultural midden. She recorded site characteristics and survey conditions using a field notebook and a digital camera. Copies of the field notes and digital photographs are on file with Rincon's Carlsbad office.

6.0 FINDINGS

The archaeological survey yielded negative results; no archaeological resources were observed during the pedestrian survey. The survey results are presented individually by substation in detail below.

6.1 MAGNOLIA SUBSTATION

The archaeological survey of the Magnolia Substation yielded negative results; no archaeological resources were observed during the pedestrian survey. The majority of Magnolia Substation is paved with asphalt, concrete, and gravel (approximately 80 percent). Ground visibility within the unpaved portions (approximately 20 percent) of the Magnolia Substation was excellent (approximately 95 percent).

Photograph 1. Magnolia Substation, facing north. (7/1/2013)

Photograph 2. Magnolia Substation, facing northeast. (7/1/2013)

6.2 PLAZA SUBSTATION

The archaeological survey of the Plaza Substation yielded negative results; no archaeological resources were observed during the pedestrian survey. The majority of Plaza Substation is paved with asphalt or concrete, or covered with gravel (approximately 60 percent). Ground visibility within the unpaved portions (approximately 40 percent) of the Plaza Substation was excellent (approximately 85 percent).

Photograph 3. Plaza Substation, facing southwest. (7/1/2013)

Photograph 4. Plaza Substation expansion area, facing north (7/1/2013)

7.0 RECOMMENDATIONS

Based on the results of the records search, Native American scoping, and field survey, Rincon Consultants recommends no further archaeological resources work for the Magnolia-Plaza Substation Project. The conversion from 4 to 12 kV will occur on existing lines and at fully developed pole locations, and therefore will not have a significant impact on any archaelogical

resources. The project will not adversely affect archaeological resources. The measures listed below are recommended in case of unanticipated discoveries.

7.2.1 Unanticipated Discovery of Cultural Resources

If archaeological resources are encountered during ground-disturbing activities, work in the immediate area would be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) would be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work such as data recovery excavation may be warranted to exhaust the data potential of the resource thereby reducing any impact to a less-than-significant level.

7.2.2 Unanticipated Discovery of Human Remains

If human remains are found, State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In accordance with this code, in the event of an unanticipated discovery of human remains, the Riverside County Coroner would be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD would complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

8.0 REFERENCES

Arnold, Jeanne E., Michael R. Walsh, and Sandra E. Hollimon
2004 The Archaeology of California. *Journal of Archaeological Research* Vol. 12, No. 1.

Bean, Walton
1968 *California: An Interpretive History.* McGraw-Hill Book Company, New York.

Blackburn, Thomas
1963 *Ethnohistoric Descriptions of Gabrielino Material Culture.* Annual Report, Archaeological Survey. University of California, Los Angeles.

Byrd, Brian F., and L. Mark Raab
2007 Prehistory of the Southern Bight: Models for a New Millennium. In *California Prehistory*, edited by T. L. Jones and K. A. Klar, pp. 215-228. Altimira Press, New York.

Couch, Jeffrey S., Joanne S. Couch, and Nancy Anastasia Wiley
2009 Saved by the Well: The Keystone Cache at CA-ORA-83, the Cogged Stone Site. *Proceedings of the Society for California Archaeology* 21:147-156.

Daitch, D. and H. Haas
2013 *Paleontological Resources Study for the Magnolia-Plaza Reliability Project, City of Riverside, Riverside County, California*. Rincon Consultants Project No. 12-00409. Report on file with Riverside Public Utilities, Riverside, California.

Daly, Pamela
2013 *Historic Resources Assessment Report of Magnolia Substation and Plaza Substation, Riverside, Riverside County, CA*. Report on file at the Eastern Information Center, Riverside, California.

Dillon, Brian D.
2002 California Paleo-Indians: Lack of Evidence, or Evidence of a Lack? In *Essays in California Archaeology: A Memorial to Franklin Fenenga*, edited by W. J. Wallace and F. A. Riddell, pp. 110–128. Contributions of the University of California Archaeological Research Facility, No. 60, Berkeley.

Dixon, Keith A.
1968 Cogged Stones and Other Ceremonial Cache Artifacts in Stratigraphic Context at ORA-58, a Site in the Lower Santa Ana River Drainage, Orange County. *Pacific Coast Archaeological Society Quarterly* 4(3):57-68.

1975 New Evidence for the Most Important Archaeological Discovery in Long Beach: the Cogged Stones and Discs of Rancho Los Cerritos. *Los Fierros* 12(2):20–31.

Dumke, Glenn S.
1944 *The Boom of the Eighties in Southern California*. Sixth printing, 1991. Huntington Library Publications, San Marino, California.

Eberhart, Hal
1961 The Cogged Stones of Southern California. *American Antiquity* 26(3):361-370.

Engelhardt, Zephyrin, O.F.M.
1927a *San Fernando Rey, the Mission of the Valley*. Franciscan Herald Press, Chicago.

1927b *San Gabriel Mission and the Beginning of Los Angeles*. Mission San Gabriel, San Gabriel, California.

Erlandson, Jon M.
1991 Early Maritime Adaptations on the Northern Channel Islands. In *Hunter-Gatherers of Early Holocene Coastal California,* edited by J. M. Erlandson and R. Colten. Perspectives in California Archaeology, Vol. 1. Institute of Archaeology, University of California, Los Angeles.

Erlandson, Jon M., Theodore Cooley, and Richard Carrico
1987 A Fluted Projectile Point Fragment from the Southern California Coast: Chronology and Context at CA-SBA-1951. *Journal of California and Great Basin Anthropology* 9:120–128.

Glassow, Michael A, L. Wilcoxen, and J. M. Erlandson
1988 Cultural and Environmental Change during the Early Period of Santa Barbara Channel Prehistory. In *The Archaeology of Prehistoric Coastlines*, edited by G. Bailey and J. Parkington pp. 64–77. Cambridge University Press, Cambridge, England.

Guinn, J.M.
1977 Gold! Gold! Gold! from San Francisquito! In *Los Angeles Biography of a City*, edited by John Caughey and LaRee Caughey. University of California Press, Berkeley.

Gumprecht, Blake
1999 *The Los Angeles River: Its Life, Death and Possible Rebirth*. John Hopkins University Press. Baltimore.

Harrington, John
1942 Culture Element Distributions. XIX. Central California Coast. *University of California Anthropological Records* 7: 1:1-46.

Heizer, Robert F.
1978 Introduction. In *California*, edited by R. F. Heizer, pp. 1–6. Handbook of North American Indians, Vol. 8, W.C. Sturtevant, general editor, Smithsonian Institution, Washington D.C.

Hudson, Travis
1982 The Alliklik – Tataviam Problem. *Journal of California and Great Basin Anthropology*, 4(2):222-232.

Johnson, J. R., T. W. Stafford, Jr., H. O. Ajie, and D. P. Morris
2002 Arlington Springs Revisited. In *Proceedings of the Fifth California Islands Symposium*, edited by D. Browne, K. Mitchell, and H. Chaney, pp. 541–545. USDI Minerals Management Service and the Santa Barbara Museum of Natural History, Santa Barbara, California.

Johnson, Paul C., Dorothy Krell, John S. Weir, Harry Downie, Adrian Wilson, Joe Seney, Philip Spencer, and France Carpentier
1972 *The California Missions A Pictorial History*. Sunset Books, Lane Publishing Co., Menlo Park, California.

Jones, Terry L., Richard T. Fitzgerald, Douglas J. Kennett, Charles Miksicek, John L. Fagan, John Sharp, and Jon M. Erlandson
2002 The Cross Creek Site and Its Implications for New World Colonization. *American Antiquity* 67:213–230.

Jones, Terry L. and Kathryn A. Klar
2007 *California Prehistory: Colonization, Culture, and Complexity*. AltaMira Press, Berkeley, California.

King, Chester D.
1994 *Native American Placenames in the Santa Monica Mountains National Recreation Area, Agoura Hills*. Topanga Anthropological Consultants, California.

Koerper, Henry C., and Christopher E. Drover
1983 Chronology Building for Coastal Orange County: The Case from CA-ORA-119-A. *Pacific Coast Archaeological Society Quarterly* 19(2):1–34.

Koerper, Henry C., Roger D. Mason, and Mark L. Peterson
2002 Complexity, Demography, and Change in Late Holocene Orange County. In *Catalysts to Complexity: Late Holocene Societies of the California Coast*, edited by Jon M. Erlandson and Terry L. Jones, pp. 63–81. Perspectives in California Archaeology, Vol. 6, Costen Institute of Archaeology, University of California, Los Angeles.

Kowta, Makoto
1969 The Sayles Complex, A Late Milling Stone Assemblage from the Cajon Pass and the Ecological Implications of its Scraper Planes. *University of California Publications in Anthropology* 6:35–69. Berkeley, California.

Kroeber, Alfred J.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78. Originally published 1925, Smithsonian Printing Office, Washington, D.C. Unabridged reprint 1976, Dover Publications, Inc. New York.

Langenwalter, Paul E., II, Matthew A. Boxt, Lawrence M. Boxt, M.D., and Theodore T. Miller, M.D.
2001 A Sea Otter (Enhydra lutris) Femur with Embedded Projectile Point Fragment from a Late Prehistoric Camp Site in Long Beach, California. *Pacific Coast Archaeological Society Quarterly* 37(1).

Lech, Steve
1998 The History of Riverside County. Electronic document, http://www.usgennet.org/usa/ca/county/riverside/. Accessed April 10, 2013.

McCawley, William
1996 *The First Angelinos: The Gabrielino Indians of Los Angeles.* Malki Museum/Ballena Press Cooperative Publication, Banning or Novato, California.

Mason, Roger D., and Mark L. Peterson
1994 *Newport Coast Archaeological Project: Newport Coast Settlement Systems–Analysis and Discussion*, Volume 1, part 1 of 2. Prepared by The Keith Companies. On file, South Central Coastal Information Center, California State University, Fullerton.

Mithun, Marianne
2004 *The Languages of Native North America*. Cambridge University Press, Cambridge, Massachusetts. Originally published 1999.

Moratto, Michael
1984 *California Archaeology*. Academic Press, New York.

National Park Service
1983 *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. Electronic document accessed December 6, 2011. Online at http://www.nps.gov/history/local-law/Arch_Standards.htm.

Nevin, David
1978 *The Mexican War*. Time-Life Books, Inc., Alexandria, Virginia.

O'Neil, Stephen
2002 *The Acjachemen in the Franciscan Mission System: Demographic Collapse and Social Change*. Master's thesis, Department of Anthropology, California State University, Fullerton.

Rawls, James J.
1984 *Indians of California: The Changing Image*. University of Okalhoma Press, Norman.

Reinman, Fred M.
1964 Maritime Adaptations on San Nicolas Island, California. *University of California Archaeological Survey Annual Report* 1963–1964:47–80.

Rick, Torben C., Jon M. Erlandson, and René Vellanoweth
2001 Paleocoastal Marine Fishing on the Pacific Coast of the Americas: Perspectives from Daisy Cave, California. *American Antiquity* 66:595–613.

Riverside, City of
2011 City History. Electronic document, http://www.riversideca.gov/human/EmployeeHandbook/history.asp. Accessed April 8, 2013.

Rolle, Andrew
2003 *California: A History*. Revised and expanded sixth edition. Harlan Davidson, Inc., Wheeling, Illinois.

Shipley, William F.
1978 Native Languages of California. In *California*, edited by R. F. Heizer, pp. 80–90. Handbook of North American Indians, Vol. 8, W. C. Sturtevant, general editor, Smithsonian Institution, Washington D.C.

True, Delbert L.
1993 Bedrock Milling Elements as Indicators of Subsistence and Settlement Patterns in Northern San Diego County, California. *Pacific Coast Archaeological Society Quarterly* 29(2):1–26.

Van Bueren, Thad M., Susan K. Goldberg, Michael J. Moratto, Portia Lee, and Jerrel H. Sorrenson

1989 *Inventory and Evaluation of Cultural Resources: Bolsa Chica Mesa and Huntington Beach Mesa, Orange County, California*. Prepared by Infotech Research, Inc. Report on file at the South Central Coastal Information Center, California State University, Fullerton.

Wallace, William

1955 Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11:214–230.

1978 Post-Pleistocene Archaeology, 9000 to 2000 B.C. In *California*, edited by R. F. Heizer, pp. 25–36. Handbook of North American Indians, Vol. 8, W. C. Sturtevant, general editor, Smithsonian Institution, Washington D.C.

Warren, Claude N.

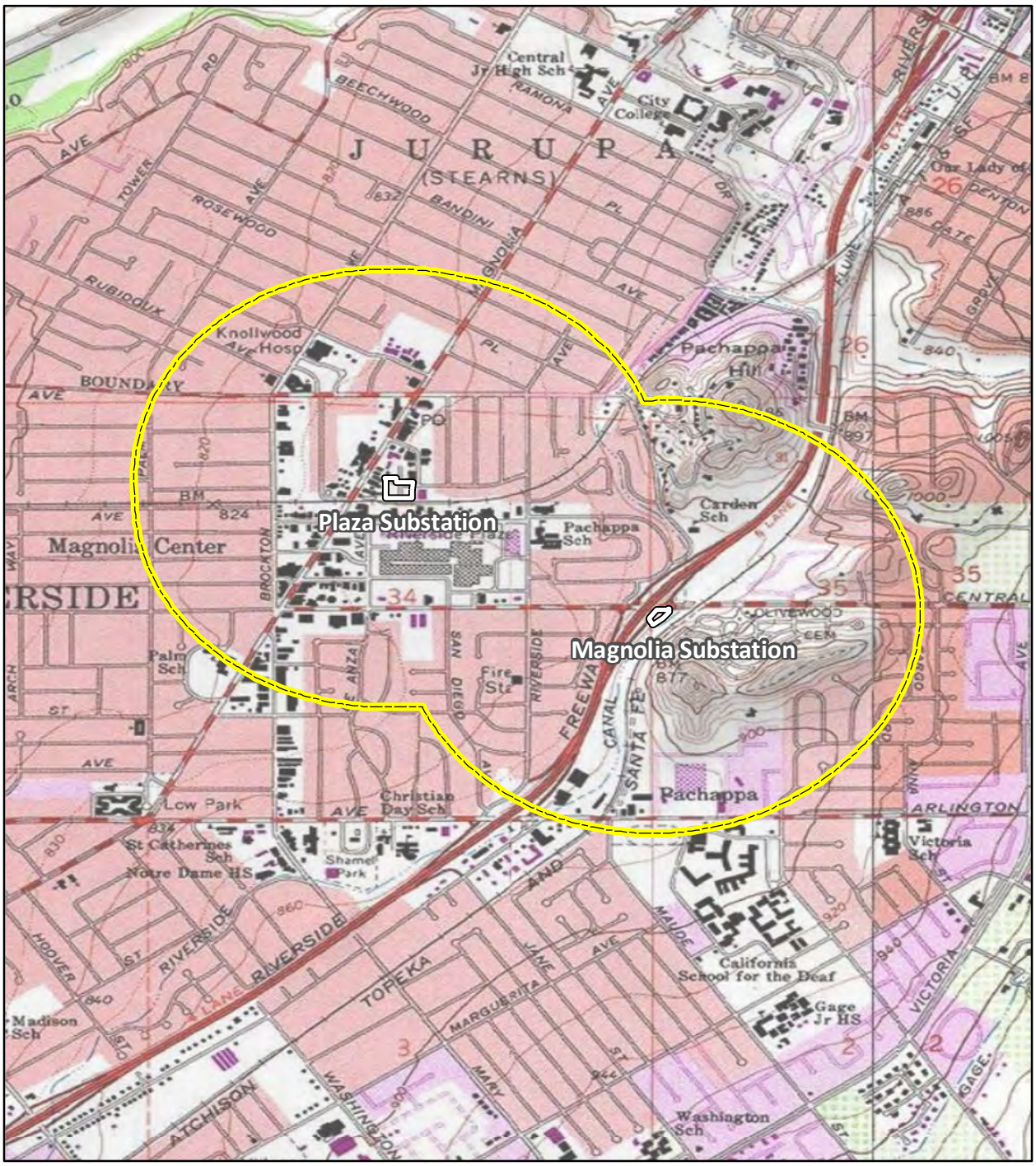
1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, edited by C. Irwin-Williams, pp. 1–14. Eastern New Mexico University Contributions in Anthropology No. 1. Portales.

Workman, Boyle

1935 *The City that Grew*. Southland Publication Co., Los Angeles.

Appendix A

Figure 1



Imagery provided by ESRI and its licensors, 2013. USGS Topo, Copyright: © 2013 National Geographic Society. Riverside West Quadrangle. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Project Area

One-Half Mile Buffer

N

0 1,000 2,000 Feet

0 250 500 Meters

1:24,000

Project Location

Figure 1

Appendix B

Records Search Summary

EASTERN INFORMATION CENTER

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

Department of Anthropology, University of California, Riverside, CA 92521-0418

(951) 827-5745 - Fax (951) 827-5409 - eickw@ucr.edu

Inyo, Mono, and Riverside Counties

June 25, 2013

CHRIS Access and Use Agreement No.: 56

EIC-RIV-ST-2235

Kevin Hunt
Rincon Consultants, Inc.
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008

Re: Cultural Resources Records Search for the Plaza Substation Project (12-00409)

Dear Mr. Hunt:

We received your request on June 12, 2013, for a cultural resources records search for the Plaza Substation project located at Elizabeth Street, Riverside, in Section 34, T.2S, R.5W, SBBM, in Riverside County. We have reviewed our site records, maps, and manuscripts against the location map you provided.

Our records indicate that seven cultural resources studies have been conducted within a half-mile radius of your project area. One of these studies involved a portion of the project area. A PDF copy of this report is included for your reference on the enclosed CD and PDF copies of the title pages of the six reports in the half-mile radius are included for your reference on the enclosed CD. Two additional studies provide overviews of cultural resources in the general project vicinity. All of these reports are listed on the attachment entitled "Eastern Information Center Report Listing" and are available upon request at 15¢/page plus $40/hour.

Our records indicate that 17 properties have been recorded within a half-mile radius of your project area. One of these properties have been recorded within the boundaries of the project area. PDF copies of the records are included for your reference on the enclosed CD. All of these resources are listed on the attachment entitled "Eastern Information Center Resource Listing".

The above information is reflected on the enclosed maps. Areas that have been surveyed are highlighted in yellow; put in only if your area has these slashes highlighted in yellow indicate a non-systematic survey; pencil line slashes indicate a

consultant records search report. Numbers marked in blue ink refer to the report number (RI #). Cultural resources properties are marked in red; numbers in black refer to Trinomial designations, those in green to Primary Number designations. National Register properties are indicated in light blue.

Additional sources of information consulted are identified below.

National Register of Historic Places: no listed properties are located within the boundaries of the project area.

Office of Historic Preservation (OHP), Archaeological Determinations of Eligibility (ADOE): no listed properties are located within the boundaries of the project area.

Office of Historic Preservation (OHP), Directory of Properties in the Historic Property Data File (HPD): three properties are listed. Two properties (33-016212; 33-017285) are listed as eligible for inclusion on the National Register of Historic Places. One property (33-011831/Kaneko Family) is listed as not evaluated for inclusion on the National Register of Historic Places. The applicable portion of this directory is enclosed for your study needs.

Note: not all properties in the California Historical Resources Information System are listed in the OHP ADOE and HPD; the ADOE and HPD comprise lists of properties submitted to the OHP for review.

Copies of the relevant portions of the 1901 USGS Riverside 15' and the 1901 USGS Elsinore 30' topographic maps are included for your reference.

As the Information Center for Riverside County, it is necessary that we receive a copy of <u>all</u> cultural resources reports and site information pertaining to this county in order to maintain our map and manuscript files. Confidential information provided with this records search regarding the location of cultural resources outside the boundaries of your project area should not be included in reports addressing the project area.

Sincerely,

Gayat Adame
Information Officer

Appendix C

Native American Correspondence

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916) 373-3715
Fax (916) 373-5471
www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

June 11, 2013

Mr. Kevin Hunt, Senior Cultural Resources Consultant
Rincon Consultants, Inc.
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008

Sent by FAX to: 760-918-9449
No. of Pages: 4

Re: Request for Sacred Lands File Search and Native American Contacts list for the **"Plaza Substation Project;"** located in the City of Riverside; Riverside County, California.

Dear Mr. Hunt:

A record search of the NAHC Sacred Lands File failed to indicate the presence of Native American traditional cultural place(s) in the project site submitted, based on the USGS coordinates, the Area of Potential Effect (APE). Note also that the NAHC SLF Inventory is not exhaustive; therefore, the absence of archaeological or Native American sacred places does not preclude their existence. Other data sources for Native American sacred places/sites should also be contacted. A Native American tribe of individual may be the only sources of presence of traditional cultural places or sites.

In the 1985 Appellate Court decision (170 Cal App 3rd 604; *EPIC v. Johnson*), the Court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.

Attached is a list of Native American tribes, individuals/organization who may have knowledge of cultural resources in or near the project area. As part of the consultation process, the NAHC recommends that local governments and project developers contact the tribal governments and individuals to determine if any cultural places might be impacted by the proposed action. If a response is not received in two weeks of notification the NAHC requests that a follow telephone call be made to ensure that the project information has been received.

If you have any questions or need additional information, please contact me at (916) 373-3715.

Sincerely,

Dave Singleton
Program Analyst

Attachment

Native American Contacts
Riverside County
June 11, 2013

Pechanga Band of Mission Indians
Paul Macarro, Cultural Resources Manager
P.O. Box 1477 Luiseno
Temecula , CA 92593
(951) 770-8100
pmacarro@pechanga-nsn.gov
(951) 506-9491 Fax

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
P.O. Box 391670 Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Rincon Band of Mission Indians
Vincent Whipple, Tribal Historic Preationv. Officer
1 West Tribal Road Luiseno
Valley Center, CA 92082
jmurphy@rincontribe.org
(760) 297-2635
(760) 297-2639 Fax

San Manuel Band of Mission Indians
Carla Rodriguez, Chairwoman
26569 Community Center Drive Serrano
Highland , CA 92346
(909) 864-8933
(909) 864-3724 - FAX
(909) 864-3370 Fax

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 -FAX

Santa Rosa Band of Mission Indians
John Marcus, Chairman
P.O. Box 391820 Cahuilla
Anza , CA 92539
(951) 659-2700
(951) 659-2228 Fax

Gabrielino Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net

(909) 262-9351 - cell

San Manuel Band of Mission Indians
Daniel McCarthy, M.S.., Director-CRM Dept.
26569 Community Center. Drive Serrano
Highland , CA 92346
(909) 864-8933, Ext 3248
dmccarthy@sanmanuel-nsn.gov
(909) 862-5152 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Plaza Substation Project; located in the City of riverside; riverside County, California for which a Sacred Lands file search and Native American Contacts list were requested.

Native American Contacts
Riverside County
June 11, 2013

Rincon Band of Mission Indians
Bo Mazzetti, Chairperson
1 West Tribal Road Luiseno
Valley Center, CA 92082
bomazzetti@aol.com
(760) 749-1051
(760) 749-8901 Fax

Cahuilla Band of Indians
Luther Salgado, Chairperson
PO Box 391760 Cahuilla
Anza , CA 92539
tribalcouncil@cahuilla.net
915-763-5549

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Rroad Cahuilla
Banning , CA 92220 Serrano
(951) 849-8807
(951) 755-5200
(951) 922-8146 Fax

Pechanga Cultural Resources Department
Anna Hoover, Cultural Analyst
P.O. Box 2183 Luiseño
Temecula , CA 92593
ahoover@pechanga-nsn.gov
951-770-8104
(951) 694-0446 - FAX

Pechanga Band of Mission Indians
Mark Macarro, Chairperson
P.O. Box 1477 Luiseno
Temecula , CA 92593
(951) 770-6100
hlaibach@pechanga-nsn.
gov
(951) 695-1778 FAX

Ernest H. Siva
Morongo Band of Mission Indians Tribal Elder
9570 Mias Canyon Road Serrano
Banning , CA 92220 Cahuilla
siva@dishmail.net
(951) 849-4676

Serrano Nation of Mission Indians
Goldie Walker, Chairwoman
P.O. Box 343 Serrano
Patton , CA 92369

(909) 528-9027 or
(909) 528-9032

SOBOBA BAND OF LUISENO INDIANS
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 Luiseno
San Jacinto , CA 92581
jontiveros@soboba-nsn.gov
(951) 663-5279
(951) 654-5544, ext 4137

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Plaza Substation Project; located in the City of riverside; riverside County, California for which a Sacred Lands file search and Native American Contacts list were requested.

Rincon Consultants, Inc.
5135 Avenida Encinas, Suite A
Carlsbad, California 92008

760 918 9444
FAX 918 9449

info@rinconconsultants.com
www.rinconconsultants.com

June 24, 2013

Rincon Band of Mission Indians
Bo Mazzetti, Chairperson
1 West Tribal Road
Valley Center, CA 92082

RE: Cultural Resources Study for the Magnolia-Plaza Substation Project, Riverside County, California

Dear Chairperson Mazzetti:

Rincon Consultants has been retained to conduct a cultural resources study for the Plaza Substation Project, Riverside County, California. The project proposes changes to two separate substations, the Magnolia Substation and the Plaza Substation. The Magnolia Substation will be demolished and a new block wall fence will be constructed around the perimeter. Changes to the Plaza Substation include an addition of approximately 23,668 square feet, which will include a new T5 transformer and switchgear, a block wall fence, and landscaping around the front of the substation. The Plaza Substation site is located at the west end of Elizabeth Street, along Magnolia Avenue. The Magnolia Substation site is located on Central Avenue where it meets the Riverside Freeway (State Route 91).

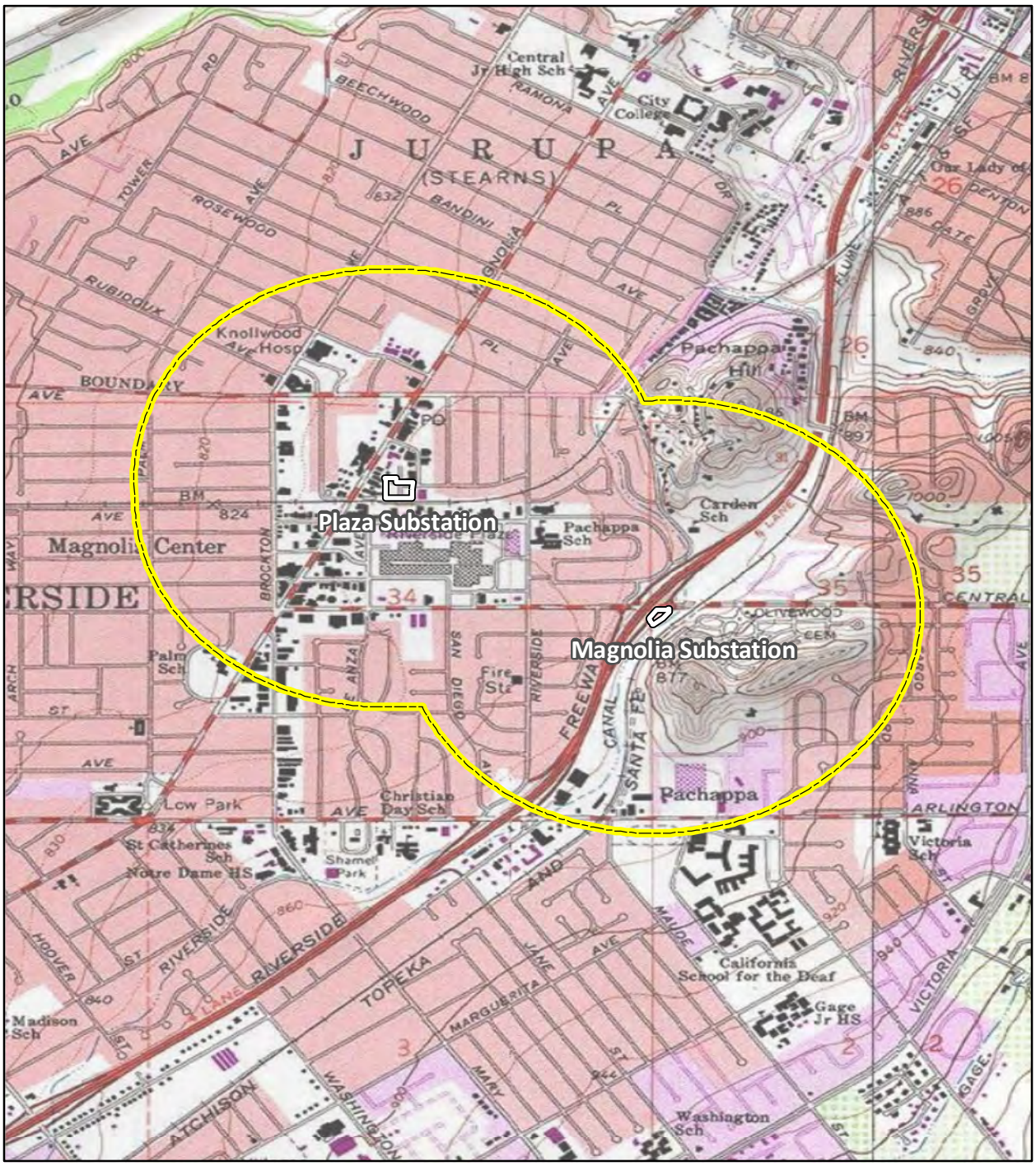
As part of the process of identifying cultural resources issues for this project, Rincon contacted the Native American Heritage Commission and requested a Sacred Lands File (SLF) search and a list of Native American tribal organizations and individuals who may have knowledge of sensitive cultural resources in or near the project area. The results stated that a search of the SLF "failed to indicate the presence of Native American traditional cultural place(s)" within the project area but recommended that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have knowledge of cultural resources that may exist within or near the project area, please contact me in writing at the above address or khunt@rinconconsultants.com, or by telephone at (760) 918-9444, extension 208. Thank you for your assistance.

Sincerely,

Kevin Hunt
Cultural Resources Program Manager

Enclosure: Project Location Map



Imagery provided by ESRI and its licensors, 2013. USGS Topo, Copyright: © 2013 National Geographic Society. Riverside West Quadrangle. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Project Area

One-Half Mile Buffer

N

0 1,000 2,000 Feet

0 250 500 Meters

1:24,000

Project Location

Figure 1

RINCON BAND OF LUISEÑO INDIANS

Culture Committee

1 W. Tribal Road · Valley Center, California 92082 ·
(760) 297-2622 or·(760) 297-2635 & Fax:(760) 297-2639

June 26, 2013

Rincon Consulting, Inc.
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008

Re: Cultural Resources Study for the Plaza Substation Project, Riverside County, California

Dear Mr. Kevin Hunt,

Thank you for inviting us to submit comments on the Plaza Substation Project. This letter is written on behalf of the Rincon Band of Luiseño Indians. Rincon is submitting these comments concerning your Project's potential impact on Luiseño cultural resources.

The Rincon Band has concerns for impacts to historic and cultural resources and findings of significant cultural value that could be disturbed or destroyed and are considered culturally significant to the Luiseño people. This is to inform you, your identified location is within the Aboriginal Territory of the Luiseno people, but is not within Rincon's Historic boundaries. We refer you to Pechanga Band of Luiseño Indians or Soboba Band of Luiseño Indians who are closer to your project area. In addition, we recommend a Native American Monitor be present during any and all ground disturbances.

Also, please contact the Native American Heritage Commission and they will assist with a referral to other tribes in the project area. We request you update your contact information for Rincon and send any future letters and correspondence to the Rincon Tribal Chairman and the Tribal Historic Preservation Office in the Cultural Resource Department, 1 W. Tribal Road, Valley Center, CA 92082 (760) 297 2635.

Note that our address has changed. Please update your records to replace the previous address of PO Box 68, Valley Center, CA 92082 with the following address: 1 W. Tribal Road, Valley Center, CA 92082.

Thank you for this opportunity to protect and preserve our cultural assets.

Sincerely,

Rose Duro
Rincon Culture Committee Chairman

Rcvd 7/16/13 KH

C-2 Historic Resources Assessment Report

HISTORIC RESOURCES ASSESSMENT REPORT

Of

Magnolia Substation and Plaza Substation,
Magnolia-Plaza Reliability Project
Riverside, Riverside County, CA

Project Owner:
City of Riverside, Department of Public Utilities

Prepared for:
Rincon Consultants, Inc.

Prepared by
Pamela Daly, M.S.H.P.
Daly & Associates
4486 University Avenue
Riverside, CA 92501

July 2013

TABLE OF CONTENTS

I. INTRODUCTION

A. MAGNOLIA SUBSTATION AND PLAZA SUBSTATION PROJECT DESCRIPTION

1. Riverside Electrical System

The City of Riverside Public Utilities (RPU) serves more than 103,000 customers through a network of 69,000 Volt (69kV) subtransmission lines, substations, and 12,000 Volt (12kV) and 4,000 Volt (4kV) distribution lines, both overhead and underground. RPU's assets include 13 distribution substations, two peak generation plants (40MW and 200MW), 91 miles of 69kV subtransmission lines, and 1,350 miles of distribution lines. In addition RPU owns and operates various communication systems throughout the City**.**

The proposed Magnolia-Plaza Reliability Project (MPRP) is intended to convert the 4kV circuits in the Magnolia Center neighborhood to 12kV infrastructure. (Figure 1 and 2) This will result in the demolition/decommission of the Magnolia Substation and the upgrade of Plaza Substation. The upgrade of Plaza Substation involves installation of new equipment that will provide the capacity needed to serve customers currently served by the Magnolia Substation. Thus, MPRP will improve the distribution system while maintaining reliable power delivery.

To allow RPU to keep pace with growth and maintain service and reliability standards for the southwestern Riverside neighborhoods, the addition of one 18/24/30MVA transformer at Plaza Substation is required. This installation will provide the needed 12 kV support for conversion of the existing Magnolia Substation 4kV service areas. Without the Plaza Substation improvements, the neighboring station 12 kV bank transformers as well as many of their individual feeders will not have sufficient capacity and tie points to handle contingencies, which will occur due to loads that will exceed maximum capacities, with the potential of resulting in long duration, wide-area and localized-area outages. In order to maintain the schedule for 4-12kV conversion, it is required that the Plaza Substation upgrades and its new circuit ties be in-service by April 2015.

2. Magnolia Substation Work

Magnolia Substation will be demolished after conversion of its circuits. (Photograph 1) Demolition will include removal of all above-grade structures and a majority of the below-grade structures, as deemed practical. The existing perimeter fence, landscaping, and driveway will be maintained for security, aesthetics, and access until the property is sold (which is yet to be determined). Following demolition, minor site restoration will occur in the form of rough grading.

3. Plaza Substation Work

The Plaza Substation portion of the MPRP, which is called the Plaza T5 Addition, includes the following: addition of one 67-12.4 7kV transformer with non-segregated bus duct, one switchgear building, one 69kV circuit switcher, two 69 kV circuit breakers, four 69kV breaker disconnect switches, three 69kV single-phase potential transformers, one 12kV capacitor bank, relay and control panels for new 69kV bus and line positions, control and power pits, 12kV getaways and power vaults, and relocation of the 69kV Mt. View line to a new dead-end line structure with an integral line and ground disconnect switch and lightning arrestors.

Approximately 23,668 square feet of new property, adjacent to the west side of the Plaza Substation, will be acquired for adding the new T5 transformer and switchgear. (Photograph 2) A 10-foot high block wall matching the design and construction of the block wall design for RPU's existing Casa Blanca Substation will be installed around the perimeter of the new Plaza Substation property; the existing wall along the eastern boundary will remain. The existing security fence at the rear of the Substation will be removed. A new motorized, rolling gate with keypad entry will be added at the Project entrance from Elizabeth Street in order to access the site.

Drought-tolerant landscaping will be installed along the frontage of the expanded Plaza Substation on Elizabeth Street. A new irrigation system with backflow prevention will be installed to accommodate the new landscaping along the frontage wall. Further, in order to reduce the need for maintenance and eliminate regular maintenance access to the rear of the Substation property, the rear block wall will be covered with artificial ivy.

Transformer, 69kV breaker, circuit switcher, and switchgear foundations will be installed consistent with current RPU standard practices. The T5 transformer foundation will be a concrete slab and curbing, consistent with previous drilled-shaft foundation designs. The T5 transformer foundations shall drain into the existing T3 containment pit which shall be gravity fed through a PVC pipe from the T5 transformer foundation.

The existing onsite control building will be reused. The control cabling will enter the control building through the existing control cable pit and cable riser. A new control cable pit will be added to the expanded 69kV switchyard, and new conduit will be run from the new control cable pit to existing cable pits as needed.

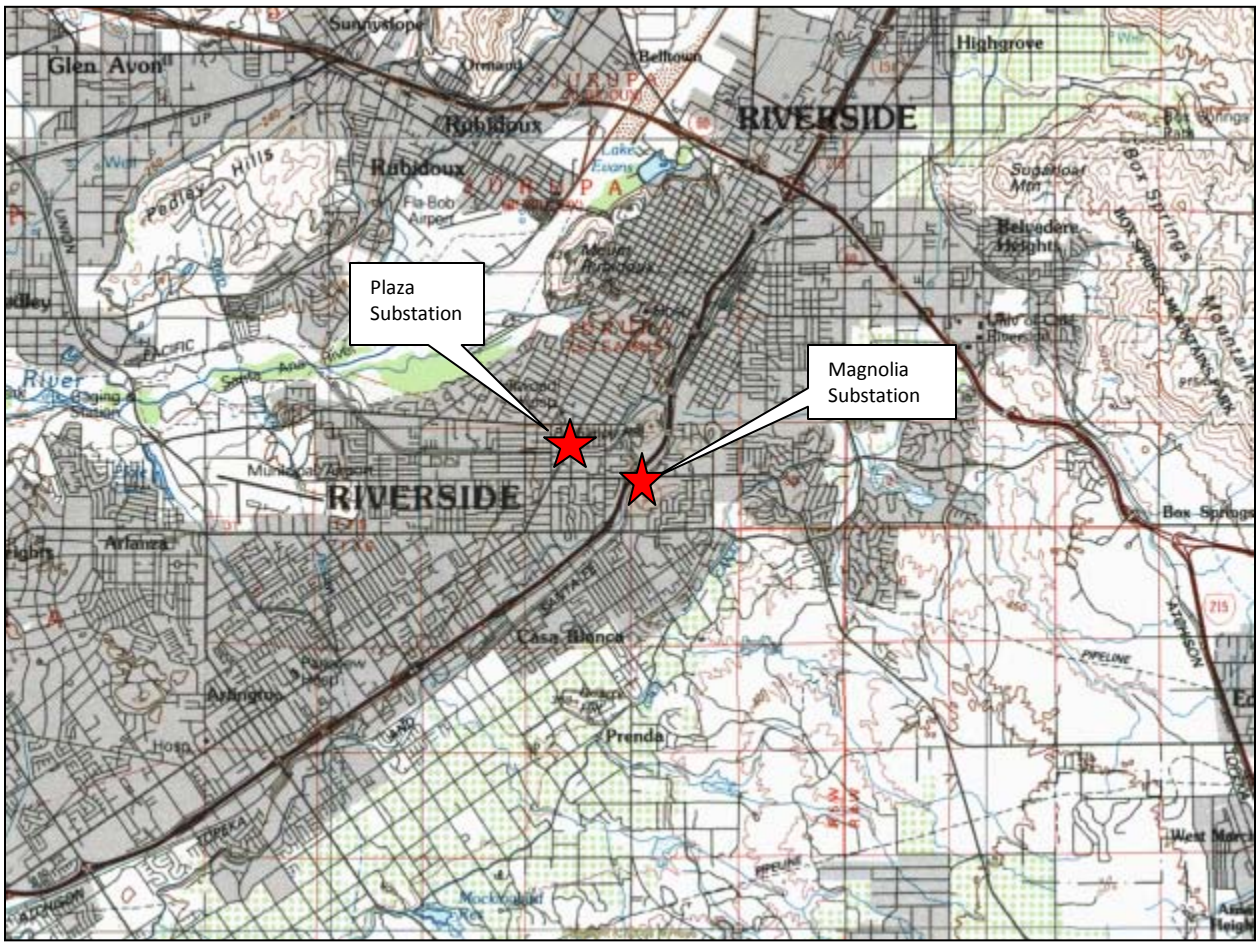


Figure 1: Regional Project Location
(U.S.G.S. Santa Ana Map, 1:100,000)

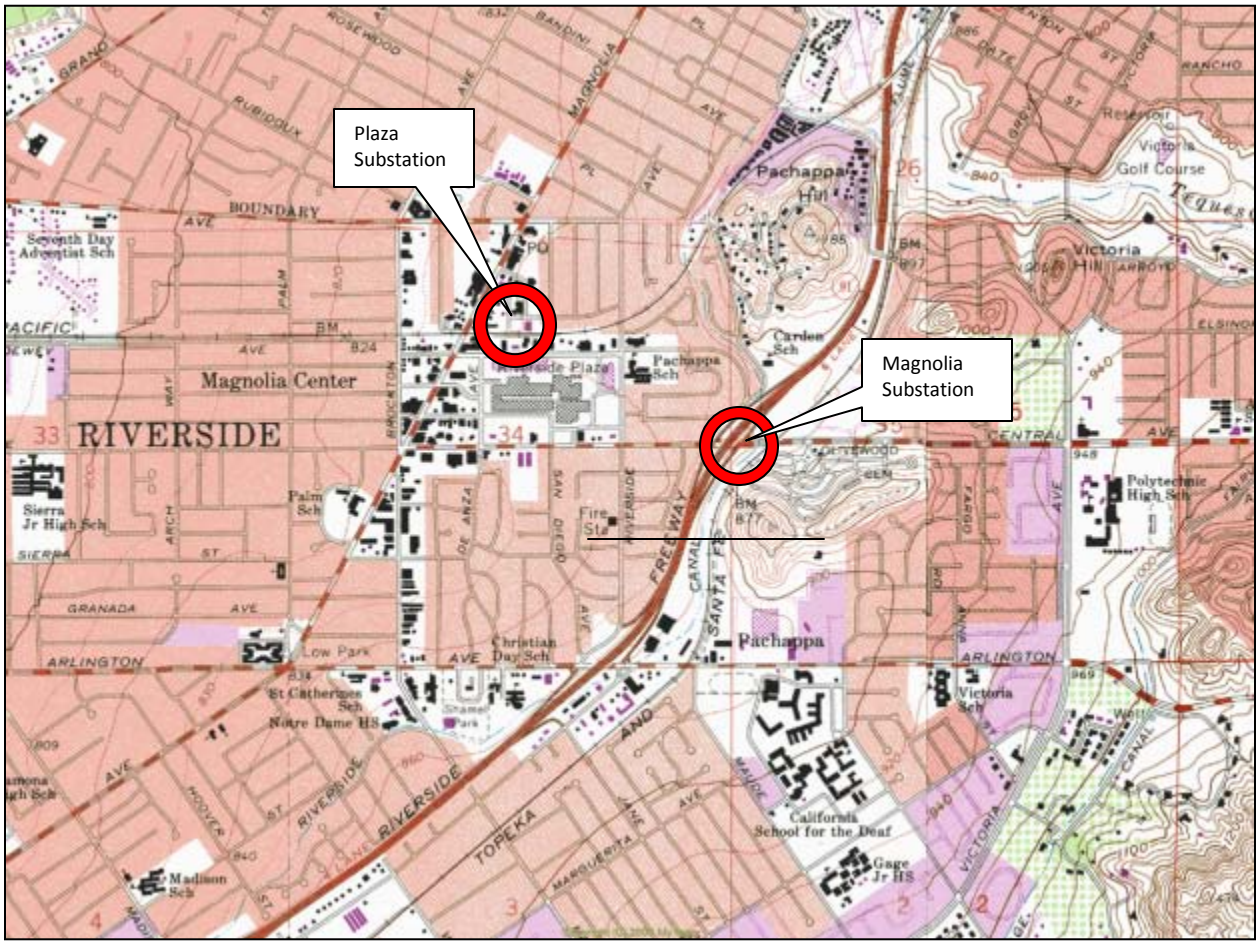


Figure 2: Location of Magnolia Substation and Plaza Substation.
(U.S.G.S. Riverside West Quad map, 1:24,000)

Photograph 1: aerial view of Magnolia Substation.

Photograph 2: aerial view of Plaza Substation.

B. BACKGROUND INFORMATION

The Magnolia Substation and the Plaza Substation have not been previously surveyed for the investigation and documentation of cultural resources. The structures and objects located within the fenced area of each substation have not been previously surveyed and evaluated by a qualified architectural historian for listing as a historic resource in the City of Riverside, National Register of Historic Places, or California Register of Historical Resources.

The Riverside Upper Canal (P33-004495, P33-004791) was properly evaluated by an architectural historian as a linear resource in 1996. The survey and statement of significance was prepared by Richard Starzak of Myra L. Frank & Associates. Mr. Starzak determined that the Riverside Canal was eligible for listing in the National Register of Historic Places under criteria A as a property associated with "the earliest reliable water supply to the Southern California Colony Association" and for its association with "the origin, development and growth of the citrus industry in Riverside."[1] A section of the Riverside canal runs on the east side of a service road that borders the east side of the Magnolia Substation.

In March of 2000, Jill Hupp of Caltrans Environmental Program, Sacramento, performed an intensive survey on a section of the California Southern Railroad (P-30-176590), that was bought by the Atchison Topeka and Santa Fe Railroad as a southern route from their depot in San Bernardino, now part of the Burlington Northern Santa Fe Railroad (BNSF). Ms. Hupp determined that the BNSF Railway, formerly the Atchison, Topeka & Santa Fe Railway (AT&SF), appeared to be a significant historical resource at the state level for "its importance in transportation history and because of its role in the development of Southern California during the 'Boom of the Eighties'". The period of significance was determined to be from 1885 to 1888. A section of the California Southern Railroad runs to the east of Magnolia Substation, separated from the substation by a service road and a section of the Riverside Upper Canal.

C. METHODOLOGY

The historic resource assessment and evaluation for this report was conducted by Pamela Daly, M.S.H.P., Senior Architectural Historian. In order to identify and evaluate the structures and objects that are associated with the Magnolia Substation and the Plaza Substation, a multi-step methodology was utilized. An inspection of the existing structures and associated features, combined with a review of accessible archival sources regarding each substation, was performed to document existing conditions and assist in assessing and evaluating the associated properties for significance. Photographs were taken of substations, including photographs of architectural details or other points of interest, during the on-site survey. The photographs will be used to prepare the California Office of Historic Preservation

[1] *Starzak, Richard. RCTC/I-215 Improvement Project, Riverside County, Historic Architectural Survey Report. FHWA. RCTC. Caltrans. 1996-1997. Myra L. Frank & Associates, Inc. P33-004495, CA-RIV-004495H.*

Historical Resources Inventory Form (DPR Form series) to document the current built-environment of each station.

The National Register and the California Register criteria were employed to evaluate the significance of the property. In addition, the following tasks were performed for the study:

- The National Register and the California Historical Resources Inventory were searched.

- Site-specific research was conducted utilizing maps, city directories, newspaper articles, historical photographs, and other published sources.

- Blueprints, drawings, and other building records related to Magnolia Substation and Plaza Substation were provided by Riverside Public Utilities.

- Ordinances, statutes, regulations, bulletins, and technical materials relating to federal, state, and local historic preservation, designation assessment processes, and related programs were reviewed and analyzed.

II. REGULATORY FRAMEWORK

Historic resources fall within the jurisdiction of several levels of government. Federal laws provide the framework for the identification, and in certain instances, protection of historic resources. Additionally, states and local jurisdictions play active roles in the identification, documentation, and protection of such resources within their communities. The National Historic Preservation Act of 1966 as amended (NHPA), and the California Register of Historical Resources (CRHR), are the primary federal and state laws and regulations governing the evaluation and significance of historic resources of national, state, regional, and local importance. A description of these relevant laws and regulations are presented below.

In analyzing the historic significance of the subject property, criteria for designation under federal, and State landmark programs were considered. Additionally, the Office of Historic Preservation (OHP) survey methodology was used to survey and rate the relative significance of the property.

A. FEDERAL LEVEL

1. National Register of Historic Places

First authorized by the Historic Sites Act of 1935, the National Register was established by the NHPA as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment."[2] The National Register recognizes properties that are significant at the national, state and local levels.

To be eligible for listing in the National Register, the quality of significance in American history, architecture, archaeology, engineering, or culture must be in a district, site, building, structure, or object that possesses integrity of location, design, setting, materials, workmanship, feeling and association, and:[3]

A. is associated with events that have made a significant contribution to the broad patterns of our history; or

B. is associated with the lives of persons significant in our past; or

[2] Code of Federal Regulations (CFR), 36 § 60.2.

[3] Guidelines for Completing National Register Forms, National Register Bulletin 16, U.S. Department of the Interior, National Park Service, September 30, 1986 ("National Register Bulletin 16"). This bulletin contains technical information on comprehensive planning, survey of cultural resources, and registration in the National Register of Historic Places.

C. embodies the distinctive characteristics of a type, period, or method of construction or that represents the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. yields, or may be likely to yield, information important to prehistory or history.

A property eligible for listing in the National Register must meet one or more of the four criteria (A-D) defined above. Also, unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for National Register listing.

In addition to meeting the criteria of significance, a property must have integrity. "Integrity is the ability of a property to convey its significance."[4] According to *National Register Bulletin 15*, within the concept of integrity, the National Register criteria recognize seven aspects or qualities that, in various combinations, define integrity. To retain historic integrity a property should possess at least one, if not most, of these seven aspects. The retention of specific aspects of integrity is paramount for a property to convey its significance.[5] The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association. The following is excerpted from *National Register Bulletin 15,* which provides guidance on the interpretation and application of these factors.

- Location is the place where the historic property was constructed or the place where the historic event occurred.[6]
- Design is the combination of elements that create the form, plan, space, structure, and style of the property.[7]
- Setting is the physical environment of a historic property.[8]
- Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.[9]

---

4 National Register Bulletin 15, page 44.

5 Ibid.

6 "The relationship between the property and its location is often important to understanding why the property was created or why something happened. The actual location of historic property, complemented by its setting is particularly important in recapturing the sense of historic events and persons. Except in rare cases, the relationship between a property and its historic associations is destroyed if the property is moved." Ibid.

7 "A property's design reflects historic functions and technologies as well as aesthetics. It includes such considerations as the structural system; massing; arrangement of spaces; pattern of fenestration; textures and colors of surface materials; type, amount, and style of ornamental detailing; and arrangement and type of plantings in a designed landscape." Ibid.

8 National Register Bulletin 15, page 45.

9 "The choice and combination of materials reveals the preferences of those who created the property and indicated the availability of particular types of materials and technologies. Indigenous materials are often the focus of regional building traditions and thereby help define an area's sense of time and place." Ibid.

- Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.[10]
- Feeling is property's expression of the aesthetic or historic sense of a particular period of time.[11]
- Association is the direct link between an important historic event or person and a historic property.[12]

In assessing a property's integrity, the National Register criteria recognize that properties change over time; therefore, it is not necessary for a property to retain all its historic physical features or characteristics. The property must, however, retain the essential physical features that enable it to convey its historic identity.[13]

For properties that are considered significant under National Register criteria A and B, *National Register Bulletin 15* states that a property that is significant for its historic association is eligible if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s).[14]

In assessing the integrity of properties that are considered significant under National Register criterion C, National Register Bulletin 15 provides that a property important for illustrating a particular architectural style or construction technique must retain most of the physical features that constitute that style or technique.[15]

The primary effects of listing in the National Register on private property owners of historic buildings is the availability of financial and tax incentives.[16] In addition, for projects that receive federal funding, the Section 106 clearance process must be completed. State and local laws and regulations may apply to properties listed in the National Register. For example,

---

[10] "Workmanship can apply to the property as a whole or to its individual components. It can be expressed in vernacular methods of construction and plain finishes or in highly sophisticated configurations and ornamental detailing. In can be based on common traditions or innovative period techniques." Ibid.

[11] "It results from the presence of physical features that, taken together, convey the property's historic character." Ibid.

[12] "A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to the observer. Like feeling, associations require the presence of physical features that convey a property's historic character…Because feeling and association depend on individual perceptions, their retention alone is never sufficient to support eligibility of a property for the National Register." Ibid.

[13] National Register Bulletin 15, page 46.

[14] Ibid.

[15] "A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, patter of windows and doors, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of features that once characterized its style." Ibid.

[16] See 36 CFR 60.2(b) (c).

demolition or inappropriate alteration of National Register eligible or listed properties may be subject to the California Environmental Quality Act (CEQA).

B. STATE LEVEL

The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also carries out the duties as set forth in the Public Resources Code (PRC) and maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the state's jurisdictions.

1. California Register of Historical Resources

Created by Assembly Bill 2881, which was signed into law on September 27, 1992, the CRHR is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change."[17] The criteria for eligibility for the California Register are based upon National Register criteria.[18] Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.[19]

The California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register of Historic Places and those formally Determined Eligible for the National Register of Historic Places;
- California Registered Historical Landmarks from No. 770 onward;
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.[20]

Other resources which may be nominated to the California Register include:

- Individual historical resources;
- Historical resources contributing to historic districts;

[17] California Public Resources Code § 5024.1(a).

[18] California Public Resources Code § 5024.1(b).

[19] California Public Resources Code § 5024.1(d).

[20] California Public Resources Code § 5024.1(d).

- Historical resources identified as significant in historical resources surveys with significance ratings of Category 1 through 5;
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as a historic preservation overlay zone.[21]

To be eligible for listing in the California Register, a historic resource must be significant at the local, state, or national level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

Additionally, a historic resource eligible for listing in the California Register must meet one or more of the criteria of significance described above and retain enough of its historic character or appearance to be recognizable as a historic resource and to convey the reasons for its significance. Historical resources that have been rehabilitated or restored may be evaluated for listing.[22]

Integrity under the California Register is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. The resource must also be judged with reference to the particular criteria under which it is proposed for eligibility. It is possible that a historic resource may not retain sufficient integrity to meet criteria for listing in the National Register, but it may still be eligible for listing in the California Register.[23]

2. California Office of Historical Preservation Survey Methodology

The evaluation instructions and classification system prescribed by the California Office of Historic Preservation in its Instructions for Recording Historical Resources provide a three-digit evaluation rating code for use in classifying potential historic resources. The first digit indicates one of the following general evaluation categories for use in conducting cultural resources surveys:

---

[21] California Public Resources Code § 5024.1(e).

[22] California Code of Regulations, California Register of Historical Resources (Title 14, Chapter11.5), Section 4852(c).

[23] Ibid.

1. Listed on the National Register or the California Register;
2. Determined eligible for listing in the National Register or the California Register;
3. Appears eligible for the National Register or the California Register through survey evaluation;
4. Appears eligible for the National Register or the California Register through other evaluation;
5. Recognized as Historically Significant by Local Government;
6. Not eligible for any Listing or Designation; and
7. Not evaluated for the National Register or California Register or needs re-evaluation.

The second digit of the evaluation status code is a letter code indicating whether the resource is separately eligible (S), eligible as part of a district (D), or both (B). The third digit is a number that is used to further specify significance and refine the relationship of the property to the National Register and/or California Register. Under this evaluation system, categories 1 through 4 pertain to various levels of National Register eligibility. The California Register, however, may include surveyed resources with evaluation rating codes through level 5. In addition, properties found ineligible for listing in the National Register, California Register, or for designation under a local ordinance are given an evaluation status code of 6.

C. LOCAL LEVEL

1. City of Riverside

The City of Riverside, through provisions in the City of Riverside Municipal Code, has established processes to preserve its designated historic resources. The provisions of the City of Riverside Municipal Code relative to historic preservation (Title 20; Cultural Resources), present various planning tools to promote the

> "*public health, safety and general welfare by providing for the identification, protection, enhancement, perpetuation and use of improvements, buildings, structures, signs, objects, features, sites, places, areas, districts, neighborhoods, streets, works of art, natural features and significant permanent landscaping having special historical, archaeological, cultural, architectural, community, aesthetic or artistic value in the City*."[24]

The regulation serves as a means of recognizing and documenting historic resources of cultural or aesthetic importance, while integrating the process with public and private land management.

Section 20.20.010 of the Ordinance uses the following criteria to define a local Landmark:

[24] *City of Riverside Municipal Code; Title 20, Chapter 20.05, Section 20.05.010 Purpose.*.

A. It exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural or natural history, or
B. It is identified with persons or events significant in local, state or national history; or
C. It embodies distinctive characteristics of a style, type, period or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship; or
D. It represents the work of a notable builder, designer or architect; or
E. It contributes to the significance of a historic area, being a geographically definable area possessing a concentration of historic or scenic properties or thematically related grouping of properties which contribute to each other and are unified aesthetically by plan or physical development; or
F. It has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood community or of the City; or
G. It embodies elements of architectural design, detail, materials, or craftsmanship that represent a significant structural or architectural achievement or innovation; or
H. It is similar to other distinctive properties, sites, areas, or objects based on a historic, cultural or architectural motif; or
I. It reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation motifs, or distinctive example of park or community planning; or
J. It is one of the few remaining examples in the City, region, State, or nation possessing distinguishing characteristics of an architectural or historical type or specimen.

Chapter 20.21.010 defines the criteria by which a cultural resource may be designated as a Structure of Merit in the city. They are:

A. It represents in its location an established and familiar visual feature of the neighborhood, community or City; or
B. It materially benefits the historic, architectural or aesthetic character of the neighborhood; or
C. It is an example of a type of building which was once common but is now rare in its neighborhood, community or area; or
D. It is connected with a business or use which was once common but is now rare; or
E. It contributes to an understanding of contextual significance of a neighborhood, community or area.

The City of Riverside, *Modernism Context Statement* (November 2009) was also consulted to determine the status of the area in which the Plaza Substation is located on Elizabeth Street, as the substation is located in close proximity to a collection of Modern style commercial buildings. According to the document, Elizabeth Street is located to the north of the potential Magnolia Center historic district.

III. EVALUATION

A. HISTORIC CONTEXT

1. Riverside

In 1838, the Governor of Alta California bestowed upon Senor Don Juan Bandini a land grant of 40,569 acres in the region of modern day Southern California. The Rancho Jurupa grant covered a section of the Santa Ana River basin from near the southern boundary of San Bernardino County down into the northern of Riverside County to near present day Rubidoux Mountain.

Don Bandini sold 6,750 acres of the southern portion of his grant, and they eventually fell into the hands of Louis Rubidoux. The land was generally in the area near where Mount Rubidoux is located today. The rest of Bandini's 32,259 acres were sold to his son-in-law Abel Stearns who had married his daughter Arcadia.

Judge John W. North and his partners, purchased 8,600 acres of land, which included the lands owned by Louis Rubidoux, in 1870. This section of land became the Southern California Colony and was incorporated in 1883. Renamed Riverside for its location on the east bank of the Santa Ana River, the town site was plotted on a grid pattern comprised of 182 blocks measuring 350 feet by 350 feet.[25]

From the time that Mrs. Eliza Tibbets had planted the first Brazilian species of navel orange trees given to her by the U.S. Department of Agriculture in 1873, citrus trees and the navel orange industry grew exponentially until there were over one-half million trees in Riverside in 1882. The massive growth of the agricultural industry supported the growth of the city and the number of residents needed to work the groves, pick and pack the fruit, runs the shops and the city offices. Men and women from all over the country were able to move to Southern California because of the ample opportunities and the low rail fares to get there.

Access to water for the new orange groves was a primary concern of the new community. The Upper Riverside Canal (Riverside No. 1) was constructed in 1870-1871 by the Southern California Colony Association.[26] The water was diverted from the Santa Ana River from a point in the City of Colton, at the west end of East Washington Street, and sent by a series of hand dug ditches, wood flumes, and canals, south through Grand Terrace and Highgrove, running approximately parallel to where the 215 Freeway and the 91 Freeway are located today, to the Arlington Heights area. The Lower Riverside Canal was constructed by the Riverside Land and

[25] *Draft Fox Plaza Project EIR, Section 5.5-8, Historic Resources.*

[26] *Starzak, Richard. RCTC/I-215 Improvement Project, Riverside County, Historic Architectural Survey Report. FHWA. RCTC. Caltrans. 1996-1997. Myra L. Frank & Associates, Inc.*

Irrigating Company in 1875-76 to carry the water south of Arlington Avenue.[27] The total length of the canal is approximately 19 miles.

The second need of the agricultural based community was a means of getting the oranges, and other citrus crops, to market. In 1887, the California Southern Railroad completed its line north from San Diego, along the coast until heading inland to follow the Santa Ana River to San Juan Capistrano, Orange, through Riverside to the San Bernardino Depot of the Atchison Topeka & Santa Fe Railroad (ATSF). From there, the goods could be sent to the east coast by way of the Cajon Pass and Barstow. The Southern Pacific Railroad (SPRR) built the first refrigerated box cars in 1886, and made it possible to get the citrus fruit to the east coast in almost perfect condition. The growers would have to send their product to the SPRR depot in Colton by way of the local motor car system, until 1904 when the SPRR ran a line into Riverside that continued into Los Angeles by crossing the Santa Ana River near Pedley, on its way through the southern sections of Ontario and Pomona.

With a reliable source of water, and a means to get the citrus fruit to a national market, the City of Riverside soon became the largest metropolitan city in southern California in the late 1800s.

2. Riverside Electric System

The California Electric Light Company, located in San Francisco had been the first company to sell direct current (DC) electric power to subscribers in 1879. That same year, the City of Los Angeles had ordered its first outdoor public lights from the California Electric Light Company.

Riverside was as modern as any city with the installation of electric lights and comforts being noted by a *Los Angeles Times* correspondent visiting the city in 1882. The writer noted that the Glenwood Inn, run by Frank A. Miller and his sister was "luxuriously furnished, and all provided with the electric bell and speaking tubes."[28] The switch to alternate current (AC) power began in 1883, and in nearby Redlands, Redlands Mill Number 1 powerstation, situated at the headwaters of the Santa Ana River was the first 3-phase AC powerstation in the world, and provided power over a 7-mile transmission line.[29]

The City of Riverside expanded upon their power grid system by securing power from outside the city, and transferring that power to residents and businesses through substations situated near the more populated areas of the city. After World War II, with the influx of residents to Riverside not only for jobs and housing, but to attend the University of California at Riverside, meant that new substations had to be installed near the large shopping areas such as

---

[27] *Ibid.*

[28] *Los Angeles Times. "Riverside: The Modern Wonder by Santa Ana's Meandering Marge." October 27, 1882.*

[29] *History of Electrification: Birth of Our Power Grid. http://www.edisontechcenter.org/HistElectPowTrans.html*

along Magnolia Avenue and the Riverside Plaza. The Magnolia Substation on Central Avenue was constructed to serve the new housing tracts being built in the northwest region of the city. The Magnolia Substation dates from 1956 and the Plaza Substation from approximately 1967.[30]

B. HISTORIC RESOURCES IDENTIFIED

A site visit and pedestrian-level inspection of the Plaza Substation and Magnolia Substation was performed by Pamela Daly on July 1 and July 14, 2013. Each substation is comprised of one control house and multiple transformers, power vaults, switchgears and duct banks built upon concrete pads, enclosed within a secure-fenced area.

1. Magnolia Substation 1956

The Magnolia Substation is located at 3416 Central Avenue, immediately to the east of the Central Avenue off-ramp of the north/east bound 91 Freeway. The Magnolia Substation was established to support the growing residential area being constructed to the east of Olivewood Cemetery that spread north towards the location of UC Riverside, and south towards the Arlington groves. (Photographs 3 and 4) Running parallel to the east fenceline of the substation is a service road. To the east of the service road is a section of the historic Riverside Canal that runs on an approximate north/south route through this area. Immediately east of the Canal are two sets of railroad tracks used by the Burlington Northern Santa Fe Railroad and Metrolink. (Photographs 5, 6, and 7)

Two 33kV transmission lines and six 2.3 Mega Volt Ampere (MVA) transformers (33kV-4kV) for distribution are present at the Magnolia Substation site. Six 4kV circuits are located at the site: Nos. 41, 42, 43, 44, 45, and 46.

Power is currently transferred to the Magnolia Substation over two 33kV subtransmission lines: Riverside-Magnolia and Magnolia-Freeman. During the decommissioning, a new 33kV subtransmission bypass point at a nearby transmission pole of Magnolia Substation will form the Riverside-Freeman 33kV line. Likewise, the fiber optic connections to this facility shall be re-routed to other stations such as to maintain integrity to the communications network throughout the City.

Further consideration will be given at a future date to decommissioning the Riverside-Freeman 33kV line, and a 33kV auto-transformer with associated equipment (i.e., circuit breakers, protection relays, etc.) at each substation.

[30] *Riverside Public Utilities.*

Photograph 3: Aerial view of future Magnolia Substation in 1948. Central Avenue runs east/west, and Olivewood Cemetery is to the right. (Source: NETR Historic Aerials)

Photograph 4: The photo dates from 1967, with the Magnolia Substation situated to the right of the new freeway, on the south side of Central Avenue. (Source: NETR Historic Aerials)

Photograph 5: Front entrance marker to Magnolia Substation. View looking west.

Photograph 6: Magnolia Substation. View looking northeast.

Photograph 7: The fence surrounding the Magnolia Substation is to the far right. To the immediate left of the service road is the concrete-lined channel of the Riverside Canal. To the far left, topping the short incline are the tracks of the BNSF/Metro railroad lines. View looking south.

2. Plaza Substation, circa 1966

Plaza Substation is an existing 69 kV substation with a three-breaker, radial bus configuration which utilizes a low profile design with aluminum tubing for the main bus spans and transformer bushing connections; and bare aluminum conductor on insulator supports for the breaker positions. One 69-12kV and three 69-4kV substation transformers and switchgear are currently in operation at this site. Two 69 kV lines are connected to the substation by means of two H-frame, dead-end structures. The site also includes one two-stage capacitor bank; and one control building for housing relay, control, substation automation system, and communication equipment. (Photographs 8 and 9)

This facility serves about 42 MW of load (two 12kV and fifteen 4kV circuits). The 4kV feeder getaways exit the substation from the north (5 circuits) and south (10 circuits). The north side is bound by Elizabeth Street and concrete encased ducts run along this road for power distribution from the feeders. One of the circuits exiting from the north, No. 442, turns west, and surfaces through a raiser pole, about 15 feet from the northwest corner of the facility. Power conduits have been installed under the tracks for ten feeders, which eventually reach transmission poles across the substation or continue in an underground raceway for

distribution. The west side is currently an empty lot. The two 12kV feeders, Circuits 1251 and 1253, exit out of switchgear building No. 3 through the northwest corner as they pass through underground vault M9415, a few feet from the station; and then turn eastward along Elizabeth Street for distribution. The two overhead 69kV lines take off from the substation on the south side and their transmission poles are behind the railroad tracks mentioned above. (Photographs 10, 11, and 12)

The east side of Plaza Substation is adjacent to an office building with the street address of 3690 Elizabeth Street. To the west of the Plaza Substation is an empty lot where Center Lumber had operated a retail operation since 1935, but was vacated and demolished in 2010. Immediately south of the Substation are tracks used today for Metrolink, Amtrak, and the Union Pacific Railroad, on a line that were constructed by the San Pedro, Los Angeles and Salt Lake Railroad Company in 1904.

The Plaza Substation appears to have been constructed to support the growing commercial area that was known as Riverside Plaza. Situated on Elizabeth Street, amongst a collection of 1-and 2-story commercial buildings designed in various interpretations of International style of Mid-Century Modern architecture, the Plaza Substation varies slightly from the Magnolia Substation in that the security wall that faces Elizabeth Street was designed to complement the surrounding architecture. The front (north) wall of the substation is designed using elements of International style architecture with its concave sections of concrete block set between segments of metal siding with a narrow vertical pattern, to create a contrasting effect and visual interest.

Photograph 8: Aerial view of future Plaza Substation in 1948.
(Source: NETR Historic Aerials)

Photograph 9: Aerial view of Plaza Substation in 1967.
(Source: NETR Historic Aerials)

Photograph 10: Plaza Substation, north entrance on Elizabeth Street. View looking west.

Photograph 11: Plaza Substation. View looking east.

Photograph 12: Union Pacific Railroad tracks that run outside the south border of the Plaza Substation. View looking southeast.

C. SIGNIFICANCE

1. Magnolia Substation and Plaza Substation

Riverside Public Utilities has provided for this investigation information regarding the type and usage of the electrical equipment found within the Magnolia Substation and the Plaza Substation. This information, combined with internet sources that describe the history and significant milestones in the historic discovery, inventions, and development of electrical systems within urban settings, support the determination of this evaluation that the two substations were designed and constructed for the straightforward utilitarian purpose of providing equipment to step-down the incoming electric power to the City of Riverside. With the conversion to AC in the late 1800s, the constant improvements have been to the efficiency and capacity of substations and their equipment. Consider that the first AC powerhouse produced just enough power for the small settlement in Redlands in 1893, and by 1936 Hoover Dam was producing enough power for all of Los Angeles County, thus requiring the regional electric grids capable of converting the higher voltage to local levels.

Under National Register, California Register, or City of Riverside criteria relating to the substations association with significant historical events that exemplifying broad patterns of our

history, the Magnolia Substation and Plaza Substation do not appear to qualify as significant historic resources. The Riverside substations were two of thousands that were constructed across the United States as part of regional and local electric grids after World War II. Archival research does not reveal that the Magnolia Substation and/or Plaza Substation were the site of any significant historic events. There is no evidence that the substations are eligible for listing under Criterion A/1.

Under criteria relating to Magnolia Substation and/or Plaza Substation direct association with persons of historic importance, neither substation appears to qualify as significant resources. There is no evidence that the substations were directly associated with persons important to the City of Riverside, California, or the United States. The substations have been determined not eligible for listing under Criterion B/2.

Under National Register, California Register, or City of Riverside criteria relating to the distinctive characteristics of a type, period, region, or method of construction, the Magnolia Substation and Plaza Substation are not significant individually or collectively, as they do not embody a high level of technological sophistication, nor do they appear to have been designed or constructed by a notable engineer using cutting-edge technology. Built in the 1950s and 1960s using a utilitarian design and commonly available equipment, these types of urban substations were widely found throughout the United States. Since their original construction, the substations have been constantly upgraded through repairs and maintenance for improved efficiency. The Magnolia Substation and Plaza Substation do not appear eligible for listing under Criterion C/3.

According to the aerial photographs and historic topographic maps obtained for this study, that show the specific area where the substations were erected on Central Avenue and Elizabeth Street, there does not appear to be evidence to believe the project sites have the potential to yield information to the history of the City of Riverside, California, or the nation pursuant to Criterion D/4.

In summation, Magnolia Substation and Plaza Substation are not eligible for listing in the listing in the National Register or the California Register, or as a City of Riverside significant historic resource.

2. Upper Riverside Canal (P-33-004495)

As the Upper Riverside Canal has been determined eligible for listing in the National Register, it must be protected from project activities. From the Limit of Disturbance drawings provided by RPU (See Appendix A), it does not appear that the project activities at Magnolia Substation will result in any significant physical alteration or demolition to the section of the Upper Riverside Canal (P-33-004495) located to the east of the substation. The equipment and fixtures located within the substation that will be removed during demolition activities can be accessed by its own dedicated driveway, and by a service road situated on the eastern border of the project site.

3. California Southern Railroad/Atchison Topeka & Santa Fe Railroad (P-30-176590)

As the historic linear path of what is now the Burlington Northern Santa Fe Railroad has been determined eligible for listing in the California Register, it must be protected from project activities. From the Limit of Disturbance drawings provided by RPU (See Appendix A), it does not appear that the project activities at Magnolia Substation will result in any significant physical alteration or demolition to the section of the BNSF tracks located to the east of the substation. The equipment and fixtures located within the substation that will be removed during demolition activities can be accessed by its own dedicated driveway, and by a service road situated on the eastern border of the project site.

IV. BIBLIOGRAPHY

Burden, Ernest. *Illustrated Dictionary of Architecture.* New York, NY: McGraw-Hill, 2002.

Carley, Rachel. *The Visual Dictionary of American Domestic Architecture*. New York, NY: Henry Holt and Company, 1994.

Ching, Francis, D.K. *A Visual Dictionary of Architecture*. New York, NY: Van Nostrand Reinhold, 1997.

City of Riverside. *Modernism Context Statement*. 2009.

Edison Tech Center. *The History of Electrification*. http://www.edisontechcenter.org/

Edison Tech Center. *The History of the Transformer*. http://www.edisontechcenter.org/

Hupp, Jill. DPR form for P30-176590: Burlington Northern & Santa Fe Railway (BNSF) tracks. Caltrans Environmental Program, Sacramento, California. 2000. On-file at South Central Coastal Information Center, California State University–Fullerton, Fullerton, California.

Office of State Historic Preservation. California Historic Resources Inventory, Survey Workbook (excerpts). State of California: Sacramento, 1986.

Office of State Historic Preservation. Historic Properties Directory. State of California: Sacramento, 1995.

Office of State Historic Preservation. *Technical Assistance Series #10, California State Law and Historic Preservation: Statutes, Regulations and Administrative Policies Regarding Historic Preservation and Protection of Cultural and Historical Resources.* State of California: Sacramento, 1986.

Parker, Patricia L. *National Register Bulletin 24, "Guidelines for Local Surveys: A Basis for Preservation Planning".* Washington D.C.: U.S. Government Printing Office, 1985.

Starzak, Richard. *RCTC/I-215 Improvement Project, Riverside County, Historic Architectural Survey Report*. FHWA. RCTC. Caltrans. 1996-1997. Myra L. Frank & Associates, Inc.

The Historical Archive. *The History of Electricity*. http://www.thehistoricalarchive.com

The Thomas Guide. *Riverside County*. Chicago: Rand McNally, 2006.

United States Department of the Interior. *National Register Bulletin 15, "How to Apply the National Register Criteria for Evaluation."* Washington, DC: National Park Service, Interagency Resources Division, rev. 1991.

United States Geographic Service. Riverside Quad Map, 1901. Scale 1:62,500.

United State Geographic Service. Colton Quad Map, 1938. Scale 1:31,680.

United States Geographic Service. Riverside Quad Map, 1942. Scale 1:62,500.

United States Geographic Service. Riverside West Quad Map, 1953. Scale 1:24,000.

Wikipedia. *Electrical Substation*. http://en.wikipedia.org/widi/Electrical_substation

APPENDIX A – Substation Limits of Disturbance Drawings

CENTRAL AVENUE

W. r COR. SEC. 35
T. 2 S., R. 5 W., SB,B & M

8-4" S.S DUCTS

2" TEL. CO. TRANSITE

TYPE "H" CURB & GUTTER

SIDEWALK

2-4" STL. COND

RETAINING WALL 48"± x 8" x 145' LONG

POLE 1570J

VENT

CONCRETE DRIVEWAY

TIME CLOCK CONTROL

2-4" F.I.

1" STL. COND.

VAULT #76

VENT

HB

W

2-2" STL. COND.

1" STL. COND.

1-1" COND.

6-4" F.I.

10-4" F.I.

16-4" STL.

CONTROL HOUSE

A.C. M/C PAD

A.C. M/C PAD

G.E. M/C PAD

4" STL. COND.

2-2" STL. COND.

HB

STRUCT. COL. PADS

ASPHALT DRIVE

S40°40'00"W 63.38'

RIVERSIDE WATER COMPANY CANAL

S16°18'00"W 26.12'

S16°18'W 10.12'

S27°10'00"W 28.51'

60" R.C.P.

IRON

ISLAND

RETAINING WALL

S.E. OFF - RAMP OF RIVERSIDE FREEWAY

1-4" F.I.

2-4" F.I.

48.10'

RISER CKT #46

SPARE

POLE 12109J

RISER CKT #42

POLE 12896J

42" CROSS TOWN WATER LINE

246±

83'-0"

9'-6" CHAIN LINK FENCE

S62°03'30"W 128.22'

ANCHOR GUYS

PBMS SITE

POLE 12110J

S89°56'35"W 56.99'

49.59'

LIMITS of DISTURBANCE

LEGEND:

- ELECTRIC CONDUIT
- T — TELEPHONE
- W — P.V.C. OR METAL WATER LINE
- PL — PROPERTY LINE
- SURVEY REFERENCE LINE
- X — CHAIN LINK FENCE
- CW — SPRINKLER DIRECT BURIED CONTROL WIRE
- SPRINKLER SYSTEM ELECTRIC CONTROL VALVE
- SURVEY MARKER
- MANUAL CONTROL WATER VALVE
- POLE

REFERENCE DRAWINGS:

- D-2098, D-3329, D-3332 } DEEDS
- F.B. T20-10, F.B. T20-11, F.B. T20-12, F.B. T20-13, F.B. T17-35 } SURVEY FIELD BOOKS
- T-6533273 — G.E. DRAWING
- 137096-F — A.C. DRAWING
- S5-11313 — C/R DRAWING
- U5-11052 — C/R DRAWING
- U5-11676 — C/R DRAWING
- R-221 — MICRO FILM DRAWING
- VIII-RIV-43-RW, 3 & 4 — RIGHT OF WAY MAPS

NOTES:

1. STATION SURVEYED DECEMBER, 1971 DUE TO NONCONFORMITY OF EXISTING DEEDS AND RIGHT OF WAY MAPS.

9 6 3 0 12 24 36 48 60

1" = 12'-0"

REV.	DESCRIPTION	DR	CHK	APP	DATE
2	W.O. 051304 AS-BUILT.	BE	PW	PW	8-4 07
1	AS BUILT - W.O. 682978, LANDSCAPE/IRRIGATION INSTALLED, & MWO 889001, FENCE RELOCATED.	JH	JC	JC	4-23 99
0	REDRAWN ON CAD.	KA	MT	RW	1-5 98

MAGNOLIA SUBSTATION
CONDUIT LAYOUT

SCALE 1"=12'-0" | DRAWN K&A
DATE 9/26/94 | CHECKED
JOB NO. | APPROVED

CITY OF RIVERSIDE
DEPARTMENT OF PUBLIC UTILITIES

LT | DRAWING NO. S5-10333

DWG S5-10333_R2

STRUCT

LEGEND

- FIRE HYDRANT
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- SEWER MANHOLE
- ELECTRIC MANHOLE
- ELECTRIC CONDUIT
- POWER POLE
- GUY WIRE
- STREET LIGHT
- UTILITY VENT
- TELEPHONE PEDESTAL
- RAILROAD EQUIPMENT
- SIGN
- POST
- AREA DRAIN
- BOLLARD
- PALM TREE
- TREE
- RAILROAD TRACKS
- CHAIN LINK FENCE
- BARBED WIRE FENCE
- GATE
- UPED — UTILITY PEDESTAL
- BFP — BACK FLOW PREVENTER
- AC — ASPHALT PAVEMENT

LIMITS OF DISTURBANCE

BASIS OF BEARINGS

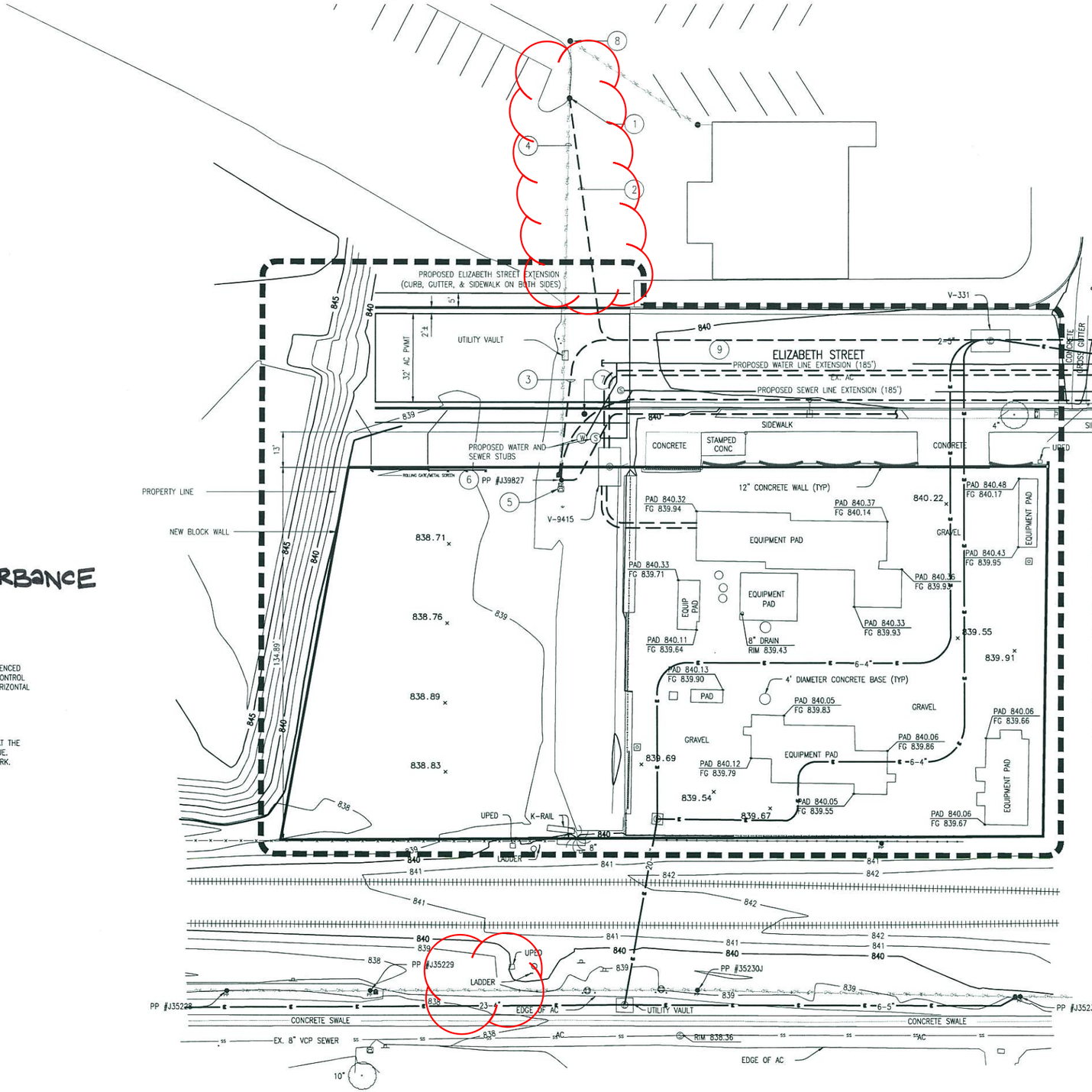
THE BASIS OF BEARINGS FOR THIS SURVEY ARE REFERENCED TO GRID NORTH, CCSB3/ZONE 6 AS DETERMINED BY CONTROL POINTS 0181 & 2069 PER THE CITY OF RIVERSIDE HORIZONTAL CONTROL NETWORK. I.E. N 35°39'49" W

BENCHMARK

BRASS DISC STAMPED "H6-B" IN A MONUMENT WELL AT THE INTERSECTION OF JURUPA ANVENUE & MAGNOLIA AVENUE. PER THE CITY OF RIVERSIDE VERTICAL CONTROL NETWORK. ELEVATION: 834.784 (DATUM: NGVD29)

0 10 20 40 60 80

SCALE: 1"=20'



SCALE: 1"=20'

NOTES:

1. PROVIDE 50', CLASS 3 WOOD POLE FOR NEW RISER.
2. PROVIDE 1-6"C FOR CIRCUIT RE-ROUTE.
3. ABANDON EXISTING CONDUIT.
4. REMOVE 5KV OVERHEAD STREET LIGHT CIRCUIT. AT&T LINE TO BE REMOVED, COORDINATE WITH AT&T.
5. RELOCATE TELEPHONE PEDESTAL. COORDINATE WITH AT&T.
6. REMOVE POLE. INCLUDING GUYS, STREET LIGHT, RISER AND OTHER POLE HARDWARE.
7. LOCATE AND INTERCEPT STREET LIGHTING CIRCUIT FOR RE-FEED.
8. EXISTING POLE MOUNTED TRANSFORMER FEEDING STREET LIGHTS.
9. TELEPHONE LINE TO BE REMOVED BY AT&T.

APPENDIX B – DPR Inventory Site Forms

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code | Reviewer | Date

*Resource Name or #: Magnolia Substation

P1. Other Identifier:

*P2. Location: ☐ Not for Publication ■ Unrestricted *a. County: Riverside

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Riverside West Date: 1967/1980 T ;R ; ¼ of ¼ of Sec ; S.B.. B.M.

c. Address: 3416 Central Avenue City: Riverside Zip: 92506

d. UTM: Zone: 11; 465218 mE/ 3757194 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 944 feet a.b.s.l.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Magnolia Substation is located at 3416 Central Avenue, immediately to the east of the Central Avenue off-ramp of the north/east bound 91 Freeway. The Magnolia Substation was established to support the growing residential area being constructed to the east of Olivewood Cemetery that spread north towards the location of UC Riverside, and south towards the Arlington groves. Running parallel to the east fenceline of the substation is a service road. To the east of the service road is a section of the historic Riverside Canal that runs on an approximate north/south route through this area. Immediately east of the Canal are two sets of railroad tracks used by the Burlington Northern Santa Fe Railroad and Metrolink.

Two 33kV transmission lines and six 2.3 Mega Volt Ampere (MVA) transformers (33kV-4kV) for distribution are present at the Magnolia Substation site. Six 4kV circuits are located at the site: Nos. 41, 42, 43, 44, 45, and 46.

Power is currently transferred to the Magnolia Substation over two 33kV subtransmission lines: Riverside-Magnolia and Magnolia-Freeman. During the decommissioning, a new 33kV subtransmission bypass point at a nearby transmission pole of Magnolia Substation will form the Riverside-Freeman 33kV line. Likewise, the fiber optic connections to this facility shall be re-routed to other stations such as to maintain integrity to the communications network throughout the City.

Further consideration will be given at a future date to decommissioning the Riverside-Freeman 33kV line, and a 33kV auto-transformer with associated equipment (i.e., circuit breakers, protection relays, etc.) at each substation.

*P3b. Resource Attributes: HP-9 (Public Utility), HP-11 (Engineering Structure).

*P4. Resources Present: ☐Building ■Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing

P5b. Description of Photo: Substation equipment, July 14, 2013. View looking northeast.

*P6. Date Constructed/Age and Sources: ■Historic ☐Prehistoric ☐Both
1956 per Riverside Public Utilities records.

*P7. Owner and Address:
City of Riverside Public Utilties

*P8. Recorded by:
Pamela Daly, M.S.H.P.
Daly & Associates
4486 University Avenue
Riverside, CA 92501

*P9. Date Recorded: July 24, 2013

*P10. Survey Type: Intensive – CEQA.

*P11. Report Citation: Daly, Pamela. *Historic Resource Assessment Report of Magnolia Substation and Plaza Substation, Riverside, Riverside County, CA.* July 2013.

*Attachments: ☐NONE ■Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code**: 6Z

***Resource Name or # : Magnolia Substation**

B1. Historic Name: Magnolia Substation
B2. Common Name: Magnolia Substation
B3. Original Use: Electric substation
B4. Present Use: Electric substation
***B5. Architectural Style:** Not applicable
***B6. Construction History:** Contructed in 1956. Constantly upgraded and repaired as required.

***B7. Moved?** ■No ☐Yes ☐Unknown **Date:** **Original Location:**
***B8. Related Features:**

B9a. Architect: N/A
b. Builder: N/A
***B10. Significance:** N/A **Theme:** N/A **Area:** Riverside County
Period of Significance: N/A **Property Type:** N/A **Applicable Criteria:** NR/CR/City of Riverside

Riverside Public Utilities has provided for this investigation information regarding the type and usage of the electrical equipment found within the Magnolia Substation and the Plaza Substation. This information, combined with internet sources that describe the history and significant milestones in the historic discovery, inventions, and development of electrical systems within urban settings, support the determination of this evaluation that the two substations were designed and constructed for the straightforward utilitarian purpose of providing equipment to step-down the incoming electric power to the City of Riverside. With the conversion to AC in the late 1800s, the constant improvements have been to the efficiency and capacity of substations and their equipment. Consider that the first AC powerhouse produced just enough power for the small settlement in Redlands in 1893, and by 1936 Hoover Dam was producing enough power for all of Los Angeles County, thus requiring the regional electric grids capable of converting the higher voltage to local levels. (See Conitinuation Sheet for additional text.)

B11. Additional Resource Attributes: None.

***B12. References:**
See report for full bibliography.

B13. Remarks:

***B14. Evaluator:** Pamela Daly, M.S.H.P.

***Date of Evaluation:** July 24, 2013

(This space reserved for official comments.)

B.10. Statement of Significance, continued:

Under National Register, California Register, or City of Riverside criteria relating to the substations association with significant historical events that exemplifying broad patterns of our history, the Magnolia Substation and Plaza Substation do not appear to qualify as significant historic resources. The Riverside substations were two of thousands that were constructed across the United States as part of regional and local electric grids after World War II. Archival research does not reveal that the Magnolia Substation and/or Plaza Substation were the site of any significant historic events. There is no evidence that the substations are eligible for listing under Criterion A/1.

Under criteria relating to Magnolia Substation and/or Plaza Substation direct association with persons of historic importance, neither substation appears to qualify as significant resources. There is no evidence that the substations were directly associated with persons important to the City of Riverside, California, or the United States. The substations have been determined not eligible for listing under Criterion B/2.

Under National Register, California Register, or City of Riverside criteria relating to the distinctive characteristics of a type, period, region, or method of construction, the Magnolia Substation and Plaza Substation are not significant individually or collectively, as they do not embody a high level of technological sophistication, nor do they appear to have been designed or constructed by a notable engineer using cutting-edge technology. Built in the 1950s and 1960s using a utilitarian design and commonly available equipment, these types of urban substations were widely found throughout the United States. Since their original construction, the substations have been constantly upgraded through repairs and maintenance for improved efficiency. The Magnolia Substation and Plaza Substation do not appear eligible for listing under Criterion C/3.

According to the aerial photographs and historic topographic maps obtained for this study, that show the specific area where the substations were erected on Central Avenue and Elizabeth Street, there does not appear to be evidence to believe the project sites have the potential to yield information to the history of the City of Riverside, California, or the nation pursuant to Criterion D/4.

In summation, Magnolia Substation and Plaza Substation are not eligible for listing in the listing in the National Register or the California Register, or as a City of Riverside significant historic resource.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

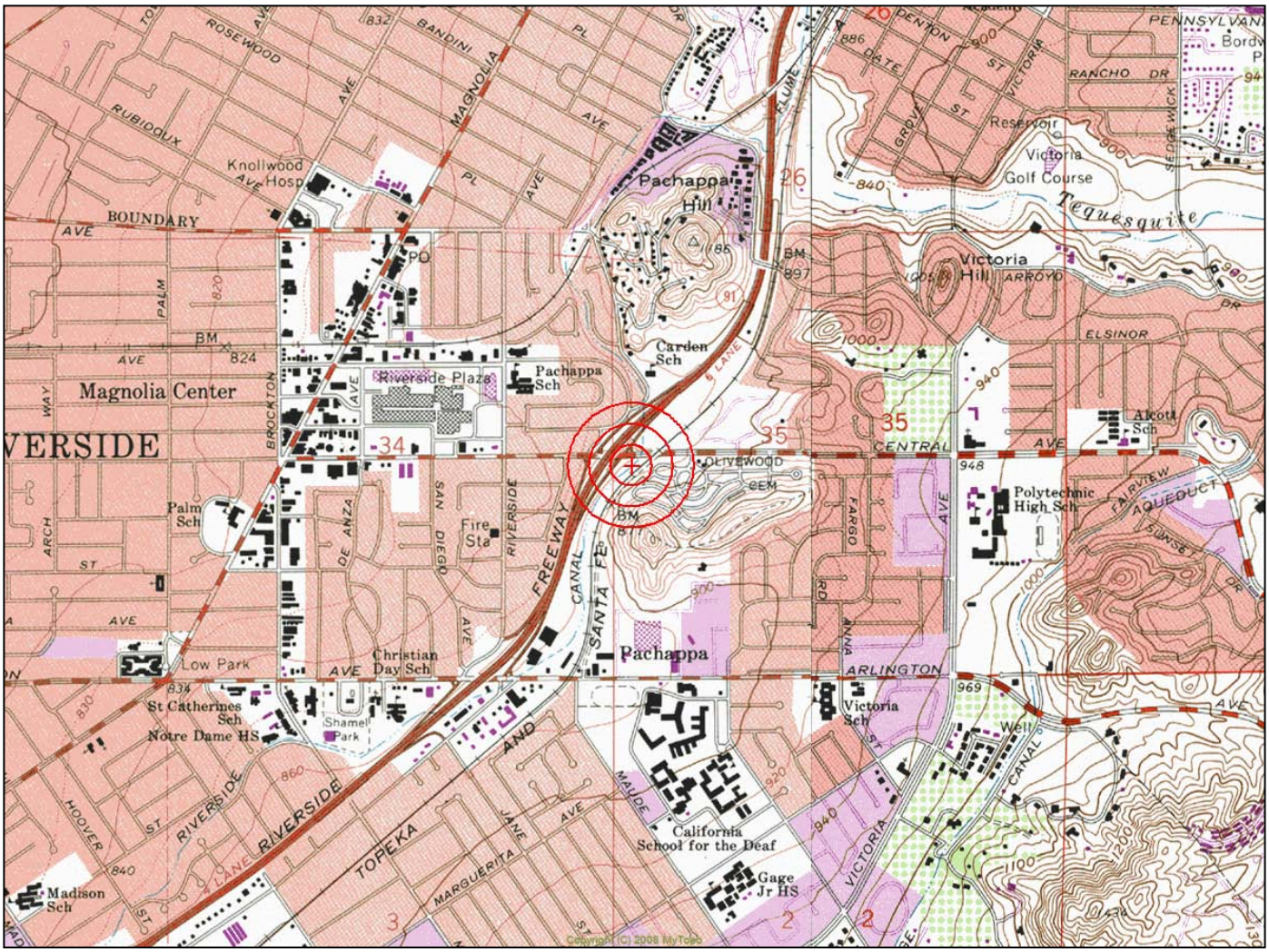
LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #:** Magnolia Substation

***Map Name:** Riverside West

***Scale:** 1:24,000 ***Date of Map:** 1967/1980



***Required information**

State of California — The Resources Agency	Primary #
DEPARTMENT OF PARKS AND RECREATION	HRI #
PRIMARY RECORD	Trinomial
	NRHP Status Code 6Z
Other Listings	
Review Code	Reviewer Date

 ***Resource Name or #:** Plaza Substation

P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** Riverside

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Riverside West **Date:** 1967/1980 **T** ;**R** ; **¼ of ¼ of Sec ;** S.B.. **B.M.**

c. Address: 3690 Elizabeth Street City: Riverside Zip: 92502

d. UTM: Zone: 11; 465218 mE/ 3757194 mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 843 feet a.b.s.l.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Plaza Substation is an existing 69 kV substation with a three-breaker, radial bus configuration which utilizes a low profile design with aluminum tubing for the main bus spans and transformer bushing connections; and bare aluminum conductor on insulator supports for the breaker positions. One 69-12kV and three 69-4kV substation transformers and switchgear are currently in operation at this site. Two 69 kV lines are connected to the substation by means of two H-frame, dead-end structures. The site also includes one two-stage capacitor bank; and one control building for housing relay, control, substation automation system, and communication equipment.

This facility serves about 42 MW of load (two 12kV and fifteen 4kV circuits). The 4kV feeder getaways exit the substation from the north (5 circuits) and south (10 circuits). The north side is bound by Elizabeth Street and concrete encased ducts run along this road for power distribution from the feeders. One of the circuits exiting from the north, No. 442, turns west, and surfaces through a raiser pole, about 15 feet from the northwest corner of the facility. Power conduits have been installed under the tracks for ten feeders, which eventually reach transmission poles across the substation or continue in an underground raceway for distribution. The west side is currently an empty lot. The two 12kV feeders, Circuits 1251 and 1253, exit out of switchgear building No. 3 through the northwest corner as they pass through underground vault M9415, a few feet from the station; and then turn eastward along Elizabeth Street for distribution. The two overhead 69kV lines take off from the substation on the south side and their transmission poles are behind the railroad tracks mentioned above. (See Continuation Sheet for additional text.)

***P3b. Resource Attributes:** HP-9 (Public Utility), HP-11 (Engineering Structure).

***P4. Resources Present:** ☐Building ■Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing

P5b. Description of Photo: Substation equipment, July 1, 2013. View looking east.

***P6. Date Constructed/Age and Sources:** ■Historic ☐Prehistoric ☐Both

Circa 1966 per aerial photograph dated 1967. (NETR Historic Aerials)

***P7. Owner and Address:**

City of Riverside Public Utilties

***P8. Recorded by:**

Pamela Daly, M.S.H.P.
Daly & Associates
4486 University Avenue
Riverside, CA 92501

***P9. Date Recorded:** July 24, 2013

***P10. Survey Type:** Intensive – CEQA.

***P11. Report Citation:** Daly, Pamela. *Historic Resource Assessment Report of Magnolia Substation and Plaza Substation, Riverside, Riverside County, CA.* July 2013.

***Attachments:** ☐NONE ■Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code**: 6Z

***Resource Name or # : Magnolia Substation**

B1. Historic Name: Magnolia Substation
B2. Common Name: Magnolia Substation
B3. Original Use: Electric substation
B4. Present Use: Electric substation
***B5. Architectural Style:** Not applicable
***B6. Construction History:** Contructed circa 1966. Constantly upgraded and repaired as required.

***B7. Moved?** ■No ☐Yes ☐Unknown **Date:** **Original Location:**
***B8. Related Features:**

B9a. Architect: N/A
b. Builder: N/A
***B10. Significance:** N/A **Theme:** N/A **Area:** Riverside County
Period of Significance: N/A **Property Type:** N/A **Applicable Criteria:** NR/CR/City of Riverside

Riverside Public Utilities has provided for this investigation information regarding the type and usage of the electrical equipment found within the Magnolia Substation and the Plaza Substation. This information, combined with internet sources that describe the history and significant milestones in the historic discovery, inventions, and development of electrical systems within urban settings, support the determination of this evaluation that the two substations were designed and constructed for the straightforward utilitarian purpose of providing equipment to step-down the incoming electric power to the City of Riverside. With the conversion to AC in the late 1800s, the constant improvements have been to the efficiency and capacity of substations and their equipment. Consider that the first AC powerhouse produced just enough power for the small settlement in Redlands in 1893, and by 1936 Hoover Dam was producing enough power for all of Los Angeles County, thus requiring the regional electric grids capable of converting the higher voltage to local levels. (See Conitinuation Sheet for additional text.)

B11. Additional Resource Attributes: None.

***B12. References:**
See report for full bibliography.

B13. Remarks:

***B14. Evaluator:** Pamela Daly, M.S.H.P.

***Date of Evaluation:** July 24, 2013

(This space reserved for official comments.)

P3. Description, continued:

The east side of Plaza Substation is adjacent to an office building with the street address of 3690 Elizabeth Street. To the west of the Plaza Substation is an empty lot where Center Lumber had operated a retail operation since 1935, but was vacated and demolished in 2010. Immediately south of the Substation are tracks used today for Metrolink, Amtrak, and the Union Pacific Railroad, on a line that were constructed by the San Pedro, Los Angeles and Salt Lake Railroad Company in 1904.

The Plaza Substation appears to have been constructed to support the growing commercial area that was known as Riverside Plaza. Situated on Elizabeth Street, amongst a collection of 1-and 2-story commercial buildings designed in various interpretations of International style of Mid-Century Modern architecture, the Plaza Substation varies slightly from the Magnolia Substation in that the security wall that faces Elizabeth Street was designed to complement the surrounding architecture. The front (north) wall of the substation is designed using elements of International style architecture with its concave sections of concrete block set between segments of metal siding with a narrow vertical pattern, to create a contrasting effect and visual interest.

B.10. Statement of Significance, continued:

Under National Register, California Register, or City of Riverside criteria relating to the substations association with significant historical events that exemplifying broad patterns of our history, the Magnolia Substation and Plaza Substation do not appear to qualify as significant historic resources. The Riverside substations were two of thousands that were constructed across the United States as part of regional and local electric grids after World War II. Archival research does not reveal that the Magnolia Substation and/or Plaza Substation were the site of any significant historic events. There is no evidence that the substations are eligible for listing under Criterion A/1.

Under criteria relating to Magnolia Substation and/or Plaza Substation direct association with persons of historic importance, neither substation appears to qualify as significant resources. There is no evidence that the substations were directly associated with persons important to the City of Riverside, California, or the United States. The substations have been determined not eligible for listing under Criterion B/2.

Under National Register, California Register, or City of Riverside criteria relating to the distinctive characteristics of a type, period, region, or method of construction, the Magnolia Substation and Plaza Substation are not significant individually or collectively, as they do not embody a high level of technological sophistication, nor do they appear to have been designed or constructed by a notable engineer using cutting-edge technology. Built in the 1950s and 1960s using a utilitarian design and commonly available equipment, these types of urban substations were widely found throughout the United States. Since their original construction, the substations have been constantly upgraded through repairs and maintenance for improved efficiency. The Magnolia Substation and Plaza Substation do not appear eligible for listing under Criterion C/3.

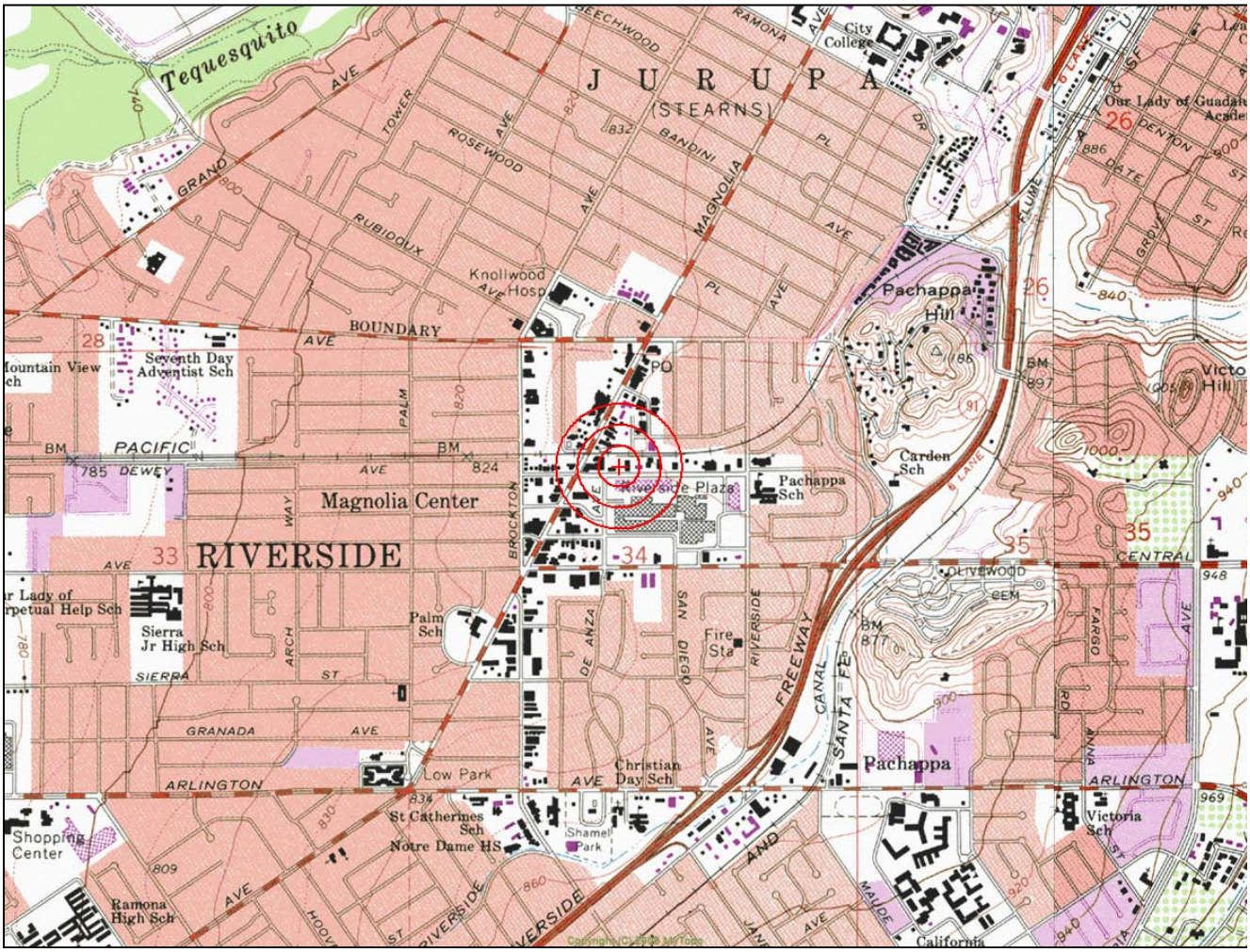
According to the aerial photographs and historic topographic maps obtained for this study, that show the specific area where the substations were erected on Central Avenue and Elizabeth Street, there does not appear to be evidence to believe the project sites have the potential to yield information to the history of the City of Riverside, California, or the nation pursuant to Criterion D/4.

In summation, Magnolia Substation and Plaza Substation are not eligible for listing in the listing in the National Register or the California Register, or as a City of Riverside significant historic resource.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION	Primary # HRI#
LOCATION MAP	Trinomial

Page 4 **of** 4 ***Resource Name or #:** Plaza Substation

***Map Name:** Riverside West ***Scale:** 1:24,000 ***Date of Map:** 1967/1980



DPR 523J (1/95) ***Required information**

C-3 Paleontological Resources Study

Paleontological Resources Study for the Magnolia-Plaza Reliability Project,

City of Riverside,
Riverside County, California

Prepared for:
RBF Consulting, a company of
Michael Baker Corporation
9755 Clairemont Mesa Blvd., MS 524
San Diego, CA 92124

Prepared by:
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008

Authors: David Daitch, Ph.D. and Hannah Haas, B.A.

July 18, 2013

rincon

Environmental Scientists Planners Engineers

D. Daitch and H. Haas

2013 *Paleontological Resources Study for the Magnolia-Plaza Reliability Project, Riverside County, California*. Rincon Consultants Project No. 12-00409. Report on file with Riverside Public Utilities, Riverside, California.

Paleontological Resources Study
Magnolia-Plaza Reliability Project

Table of Contents

Page

List of Figures

Appendices

EXECUTIVE SUMMARY

Purpose and Scope

Rincon Consultants (Rincon) was retained by RBF Consulting, a company of Michael Baker Corporation, to conduct a paleontological resources study for the proposed Magnolia-Plaza Reliability Project (project) for the City of Riverside. The project is intended to convert the 4kV circuits in that area to 12kV infrastructure in the Magnolia neighborhood resulting in the demolition of Magnolia Substation and upgrade of Plaza Substation. The latter involves installation of new equipment that will provide the capacity needed to serve customers currently served by the Magnolia Substation. This study has been prepared in conformance with the California Environmental Quality Act (CEQA) and included a records search, literature review, paleontological sensitivity assessment, and reporting.

Results of Investigation

A single geologic unit, old alluvial fan deposits, is mapped at the surface within the project boundaries. This unit and potential underlying units has high paleontological sensitivity. No records of previously recorded fossil occurrences were identified during the records search in the near vicinity; however, Pleistocene aged alluvial deposits within five miles of the site and throughout southern California are known to contain scientifically significant non-renewable paleontological resources including vertebrate, invertebrate, and plant fossils. Ground disturbing activity is expected to include excavations of up to 15 feet in depth in some parts of the project sites. Any excavations exceeding three feet in depth have the potential to impact scientifically significant paleontological resources; therefore, project activity may significantly impact paleontological resources.

Recommendations

Proposed mitigation measures would reduce to a less than significant level, potential direct, indirect, and cumulative adverse environmental impacts on paleontological resources from this project. The mitigation measures are consistent with SVP standard guidelines for mitigating adverse construction-related impacts on paleontological resources (SVP 2010) and include the development of a Paleontological Mitigation and Monitoring Program, paleontological training for construction staff, paleontological monitoring for excavations greater than three feet in depth, salvage, preparation and curation of recovered fossils, and preparation of a final Paleontological Mitigation and Monitoring Report.

1.0 INTRODUCTION

Paleontological resources (i.e., fossils) are the remains or traces of prehistoric life. Fossils are typically preserved in layered sedimentary rocks and the distribution of fossils is closely controlled by the distribution of the fossiliferous sedimentary rock units. Construction related impacts that typically affect or have the potential to affect paleontological resources include mass excavation operations, drilling/borehole excavations, trenching/tunneling, and grading. This Paleontological Resources Study (hereinafter PRS) provides a list of the formations

mapped at the surface within the project site and formations that underly those mapped at the surface which may be impacted by construction excavations. The PRS also provides a description of the formations, including types of fossils known to occur within the formations (if any), the paleontological sensitivity for each formation, an assessment of potential impacts from project development, and recommended mitigation measures for the protection and recovery of significant fossils that may be impacted.

1.1 PROJECT LOCATION AND DESCRIPTION

The Magnolia-Plaza Reliability Project proposes changes to two separate medium-voltage electrical substations, the Magnolia Substation and the Plaza Substation (Figure 1). The Magnolia Substation will be demolished and a new block wall fence will be constructed around the perimeter. Changes to the Plaza Substation include an addition of a new T5 transformer and switchgear, a perimeter 10-foot-tall block wall, and landscaping around the front of the substation affecting approximately 23,668 square feet. Ground disturbing activity will be variable within the project sites, but will generally not exceed 10 feet in depth, with a maximum of 15 feet for one location at the Plaza site. In addition, all Magnolia circuits will be converted from 4 to 12 kilovolts (kV). Conversion of the circuits from 4 to 12 kV will comprise the reconductoring of overhead wires, replacing overhead insulators and transformers, replacing some of the existing poles, and installing pad-mounted equipment in specific locations. Reconductoring of overhead wires will not involve any ground disturbing activity and is not considered within the context of this report.

The Plaza Substation site is located at the west end of Elizabeth Street, along Magnolia Avenue within Section 34, Township 2 South, Range 5 West (Figure 2a). The Magnolia Substation site is located on Central Avenue where it meets the Riverside Freeway (State Route 91), within Section 35, Township 2 South, Range 5 West (Figure 2b). Both project sites are located on the Riverside West USGS 7.5 Minute Topographic quadrangle. The project is subject to the California Environmental Quality Act (CEQA).

2.0 REGULATIONS

2.1 FEDERAL

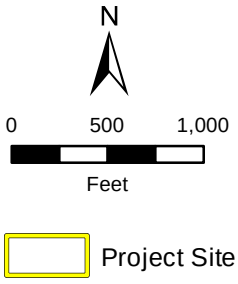
Federal protection for significant paleontological resources would apply if specific projects involve federally owned or managed lands, a federal license, permit, approval or funding and/or crosses federal lands. The current project boundary does not cross federally owned or managed lands, thus, federal protection does not apply to this project.

2.2 STATE

The following California state regulations provide guidance with respect to paleontological resources.

California Environmental Quality Act. CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site

Basemap Layer: ESRI, 2013 and its licensors.



Regional Location

Figure 1

Basemap Layer: ESRI, 2013 and its licensors.

Local Vicinity - Plaza Substation

Figure 2a

Basemap Layer: ESRI, 2013 and its licensors.

Local Vicinity - Magnolia Substation

Figure 2b

or a unique geological feature (CEQA Guidelines, Appendix G (V)c). If an impact is significant, the State CEQA Guidelines require that feasible measures which could minimize significant adverse impacts (State CEQA Guidelines § 15126.4) be implemented. State CEQA Guidelines §15370 includes mitigation guidelines to avoid, minimize, rectify, reduce/eliminate or compensate for impacts to paleontological resources.

2.3 REGIONAL AND LOCAL

The City of Riverside General Plan 2025 requires protection of paleontological resources under the Policy HP-1.3 of the Historic Preservation Element: "The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable State and federal cultural resources protection and management laws in its planning and project review process."

3.0 RESOURCE ASSESSMENT GUIDELINES

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value and are afforded protection under state (California Environmental Quality Acts or CEQA) and local (City of Riverside) laws and regulations. This Paleontological Resources Analysis satisfies CEQA (13 PRC, 2100 et seq.) and Public Resources Code Section 5097.5 (Stats 1965, c 1136, p. 2792) requirements and follows guidelines and significance criteria specified by the SVP (2010).

3.1 PALEONTOLOGICAL SENSITIVITY

Paleontological sensitivity refers to the potential for a geologic unit to produce scientifically significant fossils. Direct impacts to paleontological resources occur when earthwork activities, such as grading or trenching, cut into the geologic deposits (formations) within which fossils are buried and physically destroy the fossils. Since fossils are the remains of prehistoric animal and plant life, they are considered to be nonrenewable. Such impacts have the potential to be significant and, under the California Environmental Quality Act (CEQA) guidelines, may require mitigation. Sensitivity is determined by rock type, past history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. Currently, two generally accepted paleontological sensitivity classifications are used: the Society of Vertebrate Paleontology (SVP) system outlined in the SVP Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (SVP, 2010) and the BLM Potential Fossil Yield Classification (PFYC) system outlined in the BLM Instruction Memorandum (IM) No. 2008-009 (BLM, 2009). The City of Riverside General Plan 2025 does not provide any specific guidance on paleontological sensitivity; however, the Riverside County 2003 General Plan outlines paleontological sensitivity across the county that is generally consistent with the SVP classification. For the purposes of this report, the SVP guidelines are used to characterize paleontological sensitivity within the project area. Affected geologic formations are classified based on the relative abundance of vertebrate fossils and significant non-vertebrate fossils using a scale high, undetermined, low and no paleontological sensitivity depending upon the resource sensitivity

of the impacted geologic formations. The specific criteria applied for each sensitivity category are presented below and extracted directly from the SVP Guidelines (SVP, 2010):

High Potential
Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcaniclastic formations (e. g., ashes or tephras), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e. g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.). Paleontological potential consists of both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data. Rock units which contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units which may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.

Undetermined Potential
Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.

Low Potential
Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e.g.

basalt flows or Recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.

No Potential
Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources.

In general terms, for geologic units with high sensitivity, full-time monitoring typically is recommended during any project-related ground disturbance. For geologic units with low sensitivity, protection or salvage efforts typically are not required. For geologic units with undetermined sensitivity, field surveys by a qualified paleontologist are usually recommended to specifically determine the paleontologic potential of the rock units present within the study area. For geologic units with no sensitivity, a paleontological monitor is not required.

4.0 METHODS

Published and unpublished maps, locality data, and literature were reviewed to identify the geologic units present at, and below the surface within the project area boundaries to determine the paleontological sensitivity of the geologic units identified, and to assess the potential impacts to non-renewable paleontological resources from project development. Primary literature included Morton and Cox (2001), Morton and Matti (1989), Pajak et al. (1996), Jefferson (1991a and b), Miller (1971), Reynolds and Reynolds (1991) and Springer et al. (2009). Museum records searches were performed at the San Bernardino County Museum (SBCM) and the Western Science Center (WCS). Additionally, the online paleontological collections database of the University of California Museum of Paleontology (UCMP) was reviewed. Museum collections records were searched to identify know fossil localities in or near the project site, or regionally within the identified geologic formation present in the project area. Collection and literature searches included all fossil types (vertebrate, invertebrate, plant, microfossils, and trace fossils).

Based on a review of aerial imagery both project sites consist of developed or disturbed areas or areas with recent demolition of existing buildings. No bedrock is exposed at the surface at these project sites and therefore no field survey was conducted for this analysis.

Paleontological sensitivity ratings of the geological formations were assigned based on the findings of the record search and literature review, and on the potential impact to nonrenewable paleontological resources from project development. Results of the analysis were used to develop recommendations for this project in accordance with the professional standards of the SVP (1995).

5.0 DESCRIPTION OF RESOURCES

5.1 GEOLOGIC SETTING

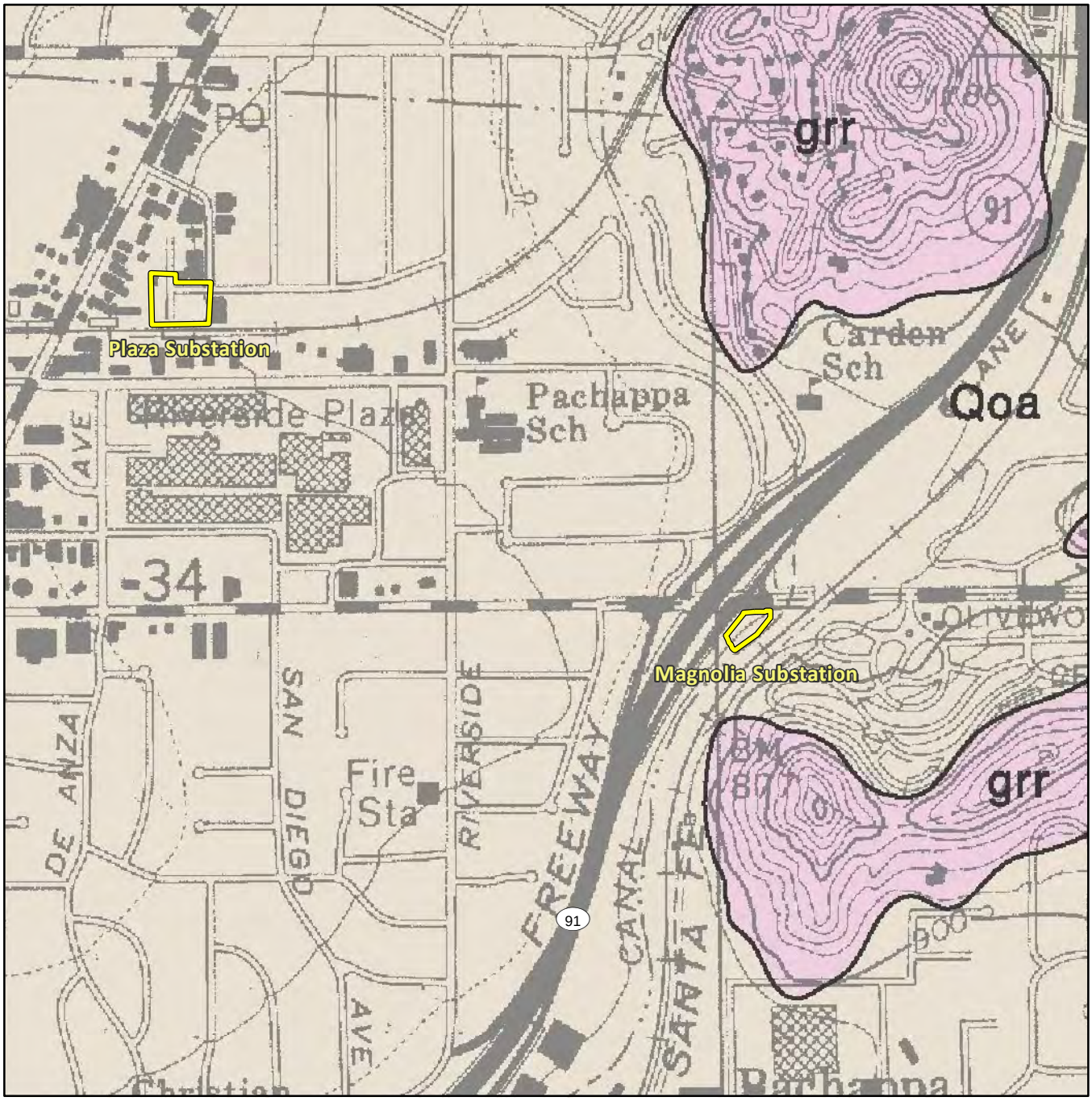
California is naturally divided into twelve geomorphic provinces, each distinguished from one another by having unique topographic features and geologic formations: the Sierra Nevada, the Klamath Mountains, the Cascade Range, the Modoc Plateau, the Basin and Range, the Mojave Desert, the Colorado Desert, the Peninsular Ranges, the Transverse Ranges, the Coast Ranges, the Great Valley, and the Offshore area. The Magnolia-Plaza Reliability Project is located within the Peninsular Ranges geomorphic province.

The Peninsular Ranges are one of the largest geologic units in western North America, extending some 900 miles from the tip of Baja California north to the Los Angeles Basin (Norris and Webb, 1990). The structure of the Peninsular Ranges consists of a northwest-southeast trending series of blocks separated by faults, consisting of extensive Cretaceous and minor amounts of Jurassic aged igneous rocks associated with the Nevadan plutonism (Norris and Webb, 1990). Post-Cretaceous rocks form a veneer of volcanic, marine, and non-marine sediments overlying the predominantly Cretaceous igneous bedrock. The project site is located at the northern end of the Peninsular Ranges on the Perris Block.

The Perris Block, as originally defined, is the mass between the San Jacinto and Elsinore-Chino fault zones, bounded on the north by the San Gabriel (Cucamonga) Fault (English, 1926). The south and southeast boundaries of the Perris Block are vague, but have been approximated as against a complex group of faults that determine the Temecula and other associated small basins (Woodford et al, 1971). The Perris Block is an eroded mass of Cretaceous and older crystalline rocks, a complex that includes metamorphosed siliceous sedimentary rocks, metavolcanic rocks, and intrusive mid-cretaceous plutons. Unconformably overlying the Cretaceous and older crystalline rocks are predominantly Pliocene and Pleistocene aged valley-filling, continental sediments (Woodford et al., 1971).

5.2 GEOLOGIC FORMATIONS

Both substation sites are underlain by Quaternary old alluvial fan deposits based on the Geologic Map of the Riverside West Quadrangle (Morton and Cox 2001) (Figure 3). Most of the Riverside West quadrangle is covered by Quaternary alluvial sediments of varying thicknesses (Morton and Cox, 2001), with a small occurrence of Paleocene (?) conglomerate along the southwest boundary of the quadrangle, and several small areas of Pliocene or early Pleistocene fluvial sand, gravel, and cobbles in the Arlington area. Much of the lower elevation areas of the quadrangle are covered by Pleistocene alluvial fan deposits, graded to the location of the present day course of the Santa Ana River, and slightly higher than the elevation of the current river grade (Morton and Cox, 2001). The predominantly Pleistocene aged sedimentary deposits overlie Cretaceous granitic rocks. Granitic rocks are exposed at the surface at higher elevations west of the project sites, mapped as Granite of the Riverside area (Morton and Cox, 2001). Exposures of Holocene aged Young alluvial fan deposits are present South and west of the project sites. Early Pleistocene aged Very old alluvial fan deposits are mapped north of the projects sites. A single geologic formation – Old alluvial fan deposits – is mapped at the surface



Source: Dibblee Geology Center Map #DF-128, 2004

Project Site

0 375 750
Feet

N

Qoa - Alluvial fan deposits of sand, minor gravel, tan to light reddish brown, top surfaces slope slightly from sounce areas and dissected by stream channels from source areas

grr - Granite of Riverside area, tan-white, massive, medium grained, but coarse grained at Mount Rubidoux, composed of quartz, potassic feldspar and sodic plagioclase feldspar with slight preponderance of potasic feldspar, and less than 3% biotite.

Geologic Map

Figure 3

within the project sites; however these deposits may be underlain by very old alluvial fan deposits at unknown depths. These units are further described below.

> **Old alluvial fan deposits** (Qof) are sandy alluvial fan deposits of late to middle Pleistocene that cover extensive areas north and south of the Santa Ana River. The deposits are slightly to moderately dissected and reddish-brown in color. These deposits include locally occurring thin, discontinuous surfaces of Holocene alluvial fan material.
>
> **Very old alluvial fan deposits** (Qvof) are mostly well dissected, well-indurated, reddish-brown sand deposits. These deposits commonly contain duripans and locally silcretes. The deposits flanking bedrock slopes typically have well developed, dissected surfaces.

No records of fossil localities were identified within the project areas; however, Pleistocene alluvium of similar lithology elsewhere in Riverside County, the Inland Empire and southern California in general has been reported to contain locally abundant and scientifically significant vertebrate, invertebrate and plant fossils (Unpublished UCMP specimen and locality data; unpublished SBCM specimen and locality data; Jefferson, 1991a and 1991b; Miller, 1971; Morton and Matti, 1989; Pajak et al., 1996; Reynolds and Reynolds, 1991). Recorded fossil localities from older quaternary alluvium are known from several sites to the north in and around the City of Ontario and the City of Fontana within five miles of the substation sites. Discoveries made during the construction of the Diamond Valley Reservoir yielded a large number of scientifically significant fossils remains of land mammals including ground sloth, dire wolf, saber-toothed cat, horse, camel, bison, mastodon, mammoth, and rodents (Springer et al., 2009). Because Pleistocene aged old and very old alluvial fan deposits are known to contain scientifically significant paleontological resources in the Perris Block and throughout southern California, it is considered to have high paleontological sensitivity.

6.0 EVALUATION, IMPACTS, and RECOMMENDATIONS

6.1 PALEONTOLOGICAL SENSITIVITY EVALUATION

Geologic deposits of high paleontological sensitivity are mapped at the surface within both project sites. Old alluvial fan deposits are mapped at the surface, and very old alluvial fan deposits may further underlie at unknown depths at the sites. These deposits are not currently exposed at the surface within the project boundaries; however, undisturbed alluvial sediments are typically present within 3 to 5 feet below the surface given the limited disturbance anticipated to have been caused by the existing electrical facilities. Ground disturbing activity associated with project development has the potential to expose sensitive Pleistocene aged alluvial fan deposits and therefore may impact significant paleontological resources that could be found within those sediments.

6.2 IMPACTS

Paleontological resources are by nature nonrenewable and are, therefore, vulnerable to impacts from development related activities. Fossils provide important information for our understanding of past environments, the history of life, past species diversity, how species respond to climate change, and many other lines of scientific inquiry. Impacts to fossils and fossil localities, and loss of fossils from looting or other destructive activity at fossil sites results in the direct loss of scientific data and directly impacts the ability to conduct scientific research on evolutionary patterns and process. Construction and grading activities associated with any development that will impact previously undisturbed geologic deposits have the potential for the destruction of significant paleontological resources. Within the project boundaries, where excavations are anticipated to exceed 3 feet in depth, old alluvial fan deposits mapped at the surface, and very old alluvial fan deposits present at unknown depths may be exposed by construction activity. Excavations and ground disturbance of these geologic units has the potential to impact significant paleontological resources.

6.3 RECOMMENDATIONS

Recommendations presented in this section include mitigation measures that should be implemented to reduce or avoid project-related potentially adverse impacts to significant paleontological resources. The proposed mitigation measures would reduce to a less than significant level, the direct, indirect, and cumulative adverse environmental impacts on paleontological resources within Pleistocene older alluvial fan deposits that could result from project construction. The proposed mitigation measures are consistent with SVP standard guidelines for mitigating adverse construction-related impacts on paleontological resources (SVP 2010).

- **Paleontological Mitigation and Monitoring Program**: Prior to construction activity a qualified paleontologist should prepare a Paleontological Mitigation and Monitoring Program to be implemented during project ground disturbance activity. This program should outline the procedures for construction staff Worker Environmental Awareness Program (WEAP) training, paleontological monitoring extent and duration, salvage and preparation of fossils, the final mitigation and monitoring report, and paleontological staff qualifications.
- **Paleontological WEAP**: Prior to the start of construction, construction personnel should be informed on the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff.
- **Paleontological Monitoring**: Any excavations exceeding 3 feet in depth should be monitored on a full-time basis by a qualified paleontological monitor. Ground disturbing activity that does not exceed 3 feet in depth would not require paleontological monitoring. Should no fossils be observed during the first 50% of excavations exceeding 3 feet in depth, paleontological monitoring could be reduced to weekly spot-checking under the discretion of the qualified paleontologist.
- **Salvage of Fossils**: If fossils are discovered, the qualified paleontologist (or paleontological monitor) should recover them. Typically fossils can be safely salvaged

quickly by a single paleontologist and not disrupt construction activity. In some cases larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case the paleontologist should have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner.

- **Preparation and Curation of Recovered Fossils**: Once salvaged, fossils should be identified to the lowest possible taxonomic level, prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection (such as the WSC or SBCM), along with all pertinent field notes, photos, data, and maps.
- **Final Paleontological Mitigation and Monitoring Report**: Upon completion of ground disturbing activity (and curation of fossils if necessary) the qualified paleontologist should prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report should include discussion of the location, duration and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated.

The Paleontological Mitigation and Monitoring Program should be supervised by a qualified paleontologist. A qualified paleontologist is defined as an individual with an M.S. or Ph.D. in paleontology or geology who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology of southern California, and who has worked as a paleontological mitigation project supervisor for a least one year. Monitoring should be conducted by a qualified paleontological monitor, who is defined as an individual who has experience with collection and salvage of paleontological resources.

7.0 REFERENCES

Bureau of Land Management (BLM). 2009. Assessment of Mitigation of Potential Impacts to Paleontological Resources. BLM Instruction Memorandum No. 2009-011, available online at http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2009/IM_2009-011.html

Jefferson, G. T. 1991a. A Catalogue of Late Quaternary Vertebrates from California: Part One. Non-marine Lower Vertebrate and Avian Taxa. Natural History Museum of Los Angeles County Technical Reports, Number 5, Los Angeles.

Jefferson, G. T. 1991b. A Catalogue of Late Quaternary Vertebrates from California: Part Two. Mammals. Natural History Museum of Los Angeles County Technical Reports, Number 7, Los Angeles.

Miller, W. E. 1971 Pleistocene Vertebrates of the Los Angeles Basin and Vicinity (Exclusive of Rancho La Brea), Los Angeles County Museum of Natural History Bulletin, Science: No. 10.

Morton, D. M. and J. C. Matti. 1989 A vanished late Pliocene to early Pleistocene alluvial-fan complex in the northern Perris block, Southern California. In Conglomerates in Basin Analysis: A Symposium Dedicated to A.O. Woodford, (I.P. Colburn, P.L. Abbott and J. Minch, eds.), Pacific Section S.E.P.M., Vol. 62, p. 73-80.

Norris, R. M. and R. W. Webb, 1990. Geology of California. 2d ed. New York: John Wiley & Sons.

Pajak, A. F., E. Scott, and C. Bell. 1996 A review of the biostratigraphy of Pliocene and Pleistocene sediments in the Elsinore Fault Zone, Riverside County, California, PaleoBios v. 17(2-4), p. 28-49.

Reynolds, S. F. B. and R. L. Renyolds. 1991. The Pleistocene beneath our feet: near surface Pleistocene fossils in inland southern California basins. IN M.O. Woodburn, SFB Reynolds, and DP Whistler (eds.) Inland Southern California: the Last 70 Million Years. Redlands: San Bernardino County Museum Special Publication 38(3&4), p. 41-43

Society of Vertebrate Paleontology (SVP). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Society of Vertebrate Paleontology, p. 1–11.

Appendix A

Resumes and Qualifications of Key Personnel

DAVID J. DAITCH, Ph.D.
Senior Paleontologist/Project Manager
Rincon Consultants, Inc.

Dr. Daitch is a Paleontologist and Project Manager in Rincon's Monterey office. He has worked for over 17 years in the paleontological and biological sciences as a field investigator, laboratory and museum technician, and teacher. Dr. Daitch has over 12 years of paleontological consulting experience. Much of his experience is in fieldwork, conducting and coordinating both small and large field projects. Dr. Daitch's paleontological experience has focused on the collection and identification of primarily Cenozoic terrestrial fossils of western North America, with moderate experience in Mesozoic terrestrial fossils and Paleocene and Mesozoic marine fossils of the western U.S. His extensive experience in both the field and the museum, combined with his cross training in both the paleontological and biological sciences has resulted in an extensive knowledge of biological processes such as evolution, population dynamics, morphologic variation, and species' response to climate change

TECHNICAL CAPABILITIES

- Dr. Daitch has been involved a numerous large scale transportation and utility projects including several linear projects. He conducted and managed paleontological field operations on linear projects in California and in the Denver, Colorado, area. These projects included linear transportation projects, large-scale energy exploration projects, and smaller residential and commercial development projects. Additionally, Dr. Daitch has managed and overseen paleontological investigations and reporting for several large energy projects in the western United States, including both 3-D seismic exploration projects and natural gas and oil pipeline projects.
- Dr. Daitch has a thorough familiarity with State and Federal guidelines pertaining to Paleontological resources, and the management of paleontological analyses in support of CEQA/NEPA compliance. He is proficient in formatting paleontological technical studies and other environmental documents that both communicate effectively to decision-makers and the public, and assist in identifying and mitigating potential impacts to paleontological resources.
- Dr. Daitch has managed numerous environmental compliance projects including the oversight of compliance with environmental conditions pertaining to paleontological resources. His experienced in communications with multiple stake-holders including developers, construction staff and oversight agencies, to ensure that project conditions are met, impacts are avoided and minimized and to the fullest extent, and projects remain on schedule and within budget.

EDUCATION, REGISTRATIONS AND AFFILIATIONS

Ph.D., Ecology & Evolutionary Biology, University of Colorado; Boulder, Colorado, 2008
M.S., Paleontology, University of Colorado; Boulder, Colorado, 2001
B.A., Biology, The Evergreen State College; Olympia, Washington, 1995

EMPLOYMENT HISTORY

Rincon Consultants, Inc. (2013 through present)
SWCA Environmental Consultants. (2003 - 2013)
Rocky Mountain Paleontology. (2000 - 2008)
University of Colorado Boulder. (1997 - 2006)

PROJECT EXPERIENCE

Project Management/Senior Technical Oversight/Field Supervisor

- WKN Wind Development Project, Palm Springs (Project Manager/Technical Oversight)
- PG&E City of Humboldt Transmission Line Improvement Project (Technical Oversight)
- San Gorgonio Wind Development Project, Palm Springs (project Manager)
- Mascot Substation Construction Project, Paleontological Monitoring (Project Manager/Technical Oversight)
- Blackstone Residential Development Project (Technical Oversight)
- Williams Ryan Gulch 3-D Seismic Exploration Project Paleontological Studies(Field Coordinator and Supervisor)
- Corral Bluffs Off-road Park Development Project (Technical Expert for Public Planning Meetings)

Field and Technical Paleontologist

- Wellstar North Park Well Pads Paleontological Studies
- Seep Ridge Road Project Paleontological Studies
- Monogram Mesa Exploration Mining Project
- Newfield Tribal Oil and Gas Development Project
- Carter Burgess I-25 North Improvement EIS
- Paleontological overview of oil shale and tar sands areas in Colorado, Wyoming, and Utah
- O & G Environmental – Helmer Gulch EIS
- Felsburg, Holt, and Ulleveig – Arapahoe Rd. Improvement Project
- Carter Burgess - East Eagle Interchange EIS
- Felsburg, Holt, and Ullevig – Pecos Street EIS
- Indiana St-Croke Canal EIS
- Federal Blvd EIS
- SH 58-44th Ave EIS
- Northern Integrated Supply Project
- NW Corridor Highway Project
- Transystems, Arapahoe Rd, Boston St., and Clinton St. intersection Project.
- Smith Environmental Inc., Cherry Creek Dr South, and Federal/Spear Interchange Project
- Northwest Pipeline Corporation Pagus Looping Project
- Metcalf Archaeological Consultants, Inc, Yampa Valley Electric Association Power Line Project
- CO47/William White Blvd. Project

PUBLICATIONS

Daitch, D. J. 2008. Teeth, Molecules, and Populations: An Integrated View of Evolving Morphology. Doctoral Dissertation, University of Colorado, Boulder, CO.

Daitch D. J. and Guralnick, R. 2007. Geographic variation in tooth morphology of the Arctic fox Vulpes (Alopex) lagopus. Journal of Mammalogy, 88 (2): 384-393.

Murphey, P.C., and Daitch, D. 2007. Paleontological overview of oil shale and tar sands areas in Colorado, Utah and Wyoming: U.S. Department of Energy, Argonne National Laboratory Report Prepared for the U.S. Department of Interior Bureau of Land Management, 463 p. and 6 maps (scale 1:500,000).

Daitch, D. J. 2001. Evolutionary patterns in Didymictis protenus (Mammalia: Carnivora) from the Willwood Formation, Bighorn Basin, Wyoming. Master's Thesis. University of Colorado, Boulder, CO. pp. 160.

Julie D. Broughton, PhD (c)
Principal Paleontologist/Assistant Project Manager
Rincon Consultants, Inc.

Julie Broughton serves as Senior Paleontologist and Project Manager with Rincon Consultants, Inc. Ms. Broughton holds a Bachelor of Science in Ecology and Evolution from the University of California, Santa Barbara, where her studies focused on the identification, ecology and evolution of plants. Her senior research project focused on the identification and climatic constraints derived from fossilized wood from a Miocene northern Nevada vertebrate paleontological locality. She is currently completing her PhD in Geology through the Earth Science Department at the University of California, Santa Barbara (UCSB) with an emphasis in paleobotany and paleoclimate. She has completed her coursework and is currently preparing her dissertation. Ms. Broughton has worked at the University of California Museum of Paleontology (UCMP) at the University of California at Berkeley, the Field Museum in Chicago, the Smithsonian National Museum of Natural History in Washington, D.C., and the Florida Museum of Natural History in Gainesville, Florida, as volunteer researcher to assist in the curation of California fossil plant specimens. She has extensive experience managing, directing, and conducting paleontological surveys, monitoring, and salvage. She has taught numerous upper- and lower-division geology and paleontology laboratory courses including History of Life and Principles of Paleontology, and was responsible for rewriting the Principles of Paleontology Laboratory Manual. Ms. Broughton's responsibilities include research and field surveys for paleontological resources, preparation of paleontological identification reports for both Caltrans and private agencies for compliance with both California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). She has more than five years of full-time paleontological experience. Ms. Broughton's capabilities and experience relevant to paleontological resources studies is presented below.

TECHNICAL CAPABILITIES

- Ms. Broughton has conducted paleontological field research, field collection, field crew oversight, and monitoring on more than 15 projects in California and 5 projects outside California resulting in more than five years of full-time paleontological experience. This experience includes identification, collection, salvage and curation of fossilized plants, terrestrial vertebrates, and marine vertebrates and invertebrates.
- Ms. Broughton rewrote the upper-division Principles of Paleontology Laboratory Manual at UCSB to specifically include fossils collected from regional Tertiary formations of central and southern California. The manual included classroom work based on taxonomically important fossils, physical characteristics of fossil phylum specific to California formations, hands-on identification to highest level taxonomy, and a field workshop on salvage and stratigraphic interpretation.
- Ms. Broughton has experience in the distribution and fossil potential of Tertiary formations across central and southern California through preparation of Phase I Paleontological Resources Reports and Caltrans Paleontological Identification Reports. She has developed mitigation and monitoring recommendations based on the scientific value and potential for recoverable fossils within existing formations determined to be within construction footprints.
- Ms. Broughton has lead multiple field trips examining the fossil localities of near-shore transitional Tertiary and Quaternary formations including Purisima, Etchegoin, Vaqueros, Monterey, and Coldwater Sandstone.

- Ms. Broughton has been approved by the City of San Diego as a paleontological Principal Investigator since 2010. That certification required meeting the criteria defined in the City of San Diego Paleontological Guidelines.
- Ms. Broughton has been responsible for oversight of undergraduate paleontological field crews for 4 consecutive summer field seasons. Her responsibilities included determining preliminary scientific value of recovered fossils, student selection, schedule coordination, agency permitting, oversite in stratigraphic mapping, student training in collection protocol, field oversite of fossil collections and salvage, and fossil identification and curation. Specimens collected were curated for use in graduate research and placement into the University of California, Santa Barbara teaching collection, as well as at UCMP.
- Ms. Broughton has acted as a research assistant to multiple natural history institutions in identifying and cataloging Miocene plant fossils of California, Idaho and Oregon. She has worked with the Deep Time Project: A Comprehensive Phylogenetic Tree of Living and Fossil Angiosperms in conjunction with the Florida Museum of Natural History.
- Ms. Broughton has worked in conjunction with several paleontologists including Dr. Bruce Tiffney, Dr. Steven Manchester, Dr. Jennifer McElwain, Dr. Diane Erwin, and Dr. Jack Wolfe (deceased) in her work on a Miocene fossil plant locality in northern California.
- Ms. Broughton has received multiple research grants including the Palaeontological Association's Sylvester-Bradley Award, the Field Museum's Visiting Scholar Grant, the Deep Time Grant, the Preston Cloud Grant, and the Doris and Samuel P. Welles Grant. She has presented her research at the North American Paleontological Convention, the Geological Society of America Cordilleran Section Meeting and the International Organization of Paleobotany conference. She has been a guest lecturer at the Santa Barbara Botanic Garden and Santa Barbara City College.
- Ms. Broughton is responsible for curriculum development and teaching of middle school earth and life science classes for The Howard-Carden School, a private elementary school in Carpinteria, California.

EDUCATION, REGISTRATIONS AND AFFILIATIONS

Ph.D., candidate, Geology, University of California, Santa Barbara
B.S., Ecology and Evolution, University of California, Santa Barbara
City of San Diego-approved Principal Investigatory (Paleontology) since 2010
Member, Geological Society of America
Member, Sigma Xi
BLM Scientific Paleontological Collecting Permit

EMPLOYMENT HISTORY

Rincon Consultants, Inc. (2006 through present)
University of California, Santa Barbara (2000 through 2006)
S & S Seeds (1997 through 2000)
Santa Barbara Botanic Garden (1996 through 1997)
Santa Barbara City College (1990 through 1994)

PUBLICATIONS

Kouwenberg LLR, Broughton JD, Tiffney BH & McElwain JC. In revision. Ancient elevation of Northern Sierra Nevada Mountains detected from stomatal analyses of 16 - 23 million year old fossil leaves. Proceedings of the National Academy of Sciences.

Kouwenberg LLR, Broughton, JD, Tiffney, BH & McElwain, JC. 2007. Ancient elevation of northern Sierra Nevada mountains detected from stomatal analyses of 16-21 million year old fossil leaves. Abstracts with Programs – Geological Society of America, vol. 39, no. 6, pp. 339, Oct 2007.

Broughton, JD. 2002. Paleoclimate and paleoecological features of the early to middle Miocene Mohawk Valley flora, northern Sierra Nevada. Abstracts with Programs - Geological Society of America, vol.34, no.5, pp.10, Apr 2002.

Tiffney, BH, Broughton JD. 2001. North American Tertiary paleocarpology; past and present. PaleoBios, vol. 21, no.2, Suppl., pp. 125-126, 11Jun2001.

PROJECT EXPERIENCE

- Paleontological Monitoring Plan (PMP), Sunset Grade Separation Project, City of Banning, Riverside County, California - Ms. Broughton completed a Caltrans PMP for the Sunset Grade Separation Project in Banning, California. The report included implementation procedures for mitigation measures adequate for the identification and recovery of significant paleontological resources, general field and laboratory methods and curation requirements.
- Phase I Paleontological Resources Analyses, Mojave, Kern County, California – Ms. Broughton completed three Phase I Paleontological Resources Analyses (PRA) for proposed solar energy projects in and around Mojave, Kern County, California. Each Phase I PRA included analysis of existing geologic maps, an institutional and literature search based on surficial geological formations within the project boundary and recommendations of fossil potential of surface and subsurface rock formations.
- Paleontological Monitoring Plan (PMP), State Route 1 Soquel/Morrissey Auxiliary Lanes Project, Santa Cruz, California – Ms. Broughton completed a Caltrans PMP for a State Route 1 Auxiliary Lanes Project in Santa Cruz, California. The report included implementation procedures for mitigation measures adequate for the identification and recovery of significant paleontological resources, general field and laboratory methods and curation requirements.
- Kearny Mesa Paleontological Monitoring, San Diego, California – Ms. Broughton conducted construction monitoring for a private developer during the construction of residences on a 6.21-acre area. Serving as a monitor, she was present full-time during all grading, excavation and/or trenching construction activities as identified on the Paleontological Monitoring Exhibit. As part of the construction monitoring, internal and external molds of near shore marine bivalves and gastropods were collected and curated at the San Diego Natural History Museum.
- Paleontological Identification Report (PIR), Highway 101 Greenbrae/Twin Cities Corridor Improvement Project, Marin County, California – Ms. Broughton completed a Caltrans PIR for a proposed US101 Freeway and interchanges project within the Greenbrae Corridor Improvement Project in San Rafael, California. The report included regulatory context, review of existing geologic resources, results of an institutional and peer-reviewed literature search for existing paleontological resources, and recommendations for construction period monitoring or mitigation requirements.

- Phase I Paleontological Resources Analysis, Tehachapi Mountains, Kern County, California – Ms. Broughton completed a Phase I Paleontological Resources Analysis (PRA) for a proposed wind energy project in the Tehachapi Mountains of Kern County, California. The Phase I PRA, initiated through a Draft EIR, included analysis of existing geologic maps, an institutional and literature search based on surficial geological formations within the project boundary and determination of fossil potential of surface and subsurface rock formations.
- Phase I Paleontological Analysis, Turlock State Route 99/Fulkerth Road Interchange Improvement Project, Stanislaus County, California – Ms. Broughton completed a Phase I Paleontological Resources Analysis (PRA) for a proposed realignment of on- and off-ramps, drainage improvements and of the local roadway and was initiated through a Caltrans Preliminary Environmental Analysis Report.
- Phase I Paleontological Analysis, Cornerstone Community Church, Simi Valley, County of Ventura, California – Ms. Broughton completed a Phase I PRS for proposed construction of a church, associated college and amphitheater and was initiated through the permitting process outlined in the Ventura County General Plan (2005) Paleontological and Cultural Resources Policy 1.8.2.1, and the Ventura County Initial Study Assessment Guidelines (February 2006, §9 and §10.1).
- Paleontological Monitoring, Malibu Legacy Park Project, California – Ms. Broughton helped perform construction monitoring related to paleontological resources at a project site located in Malibu. Archaeological monitoring was performed at the site, and all digs deeper than 5ft were monitoring for paleontological artifacts.
- Paleontological and Historical Resources Monitoring, Westmont College, Santa Barbara, California - Rincon recently implemented an Environmental Quality Assurance Program (EQAP) for Westmont College for their Phase I Development project. As part of the EQAP, Ms. Broughton performed paleontological and historical monitoring during construction.
- Multiple EIR Initial Study Assessments – Biological and Paleontological Resources: Monterey, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Imperial, and San Diego Counties – Ms. Broughton has prepared a number of ISAs related to paleontological resources for projects located throughout California.
- Paleontological Field Research Oversite, University of California, Santa Barbara, California – Ms. Broughton, is conjunction with her PhD dissertation research, conducted four consecutive years of summer field research and fossil collection at her research site near Graeagle, California. Her field work included coordination and training of a team of twelve undergraduate geology students who assisted in collection, preparation and identification of fossil specimens.

Appendix D

D-1 Soil Vapor Survey Report (Plaza Substation)

D-2 "*Vapor Intrusion Mitigation Measures*" Letter

D-3 "*No Further Action Determination for Plaza Substation Expansion*" Letter

D-4 Phase I Environmental Site Assessment (Magnolia Substation)

D-1 Soil Vapor Survey Report (Plaza Substation)

Soil Vapor Survey Report

Plaza Substation
Elizabeth Street
Riverside, California
Eastern Portions of APNs 225-052-005,
-008, -009, 010, 019 and 021
Converse Project No. 13-16-157-01

August 22, 2013

Prepared For:

City of Riverside - Public Utilities
3750 University Avenue, 3rd Floor
Riverside, California 92501

Prepared By:

CONVERSE CONSULTANTS
10391 Corporate Drive
Redlands, California 92374

Converse Consultants
Geotechnical Engineering, Environmental and Groundwater Science, Inspection and Testing Services

August 22, 2013

Daniel Honeyfield, P.E.
Utilities Senior Electrical Engineer
City of Riverside - Public Utilities
3750 University Avenue, 3rd Floor
Riverside, California 92501

Subject: **SOIL VAPOR SURVEY REPORT**
Plaza Substation
Elizabeth Street
Riverside, California
Eastern Portions of APNs 225-052-005, -008, -009, 010, 019 and 021
Converse Project No. 13-16-157-01

Mr. Honeyfield:

Converse Consultants (Converse) has prepared this Soil Vapor Survey Report to document results of a Soil Vapor Survey for the subject properties (Site), which consists of the Eastern Portions of the six subject Assessors Parcel Numbers (APNs). Converse was retained by City of Riverside to conduct this Soil Vapor Survey.

The Scope of Work for this Soil Vapor Survey has been based on our Proposal dated May 31, 2013. The Scope of Work is also in general accordance with a letter from the Santa Ana Regional Water Quality Control Board (SARWQCB) dated March 16, 2011, and the attached Work Plan (Converse June 24, 2013), which was approved by the SARWQCB. Converse conducted the Soil Vapor Survey in general accordance with the *Advisory – Active Soil Gas Investigations* (Department of Toxic Substance Control (DTSC) and Los Angeles Regional Water Quality Control Board (LARWQCB), April 2012).

Site Description

The Site is located west of the western end of Elizabeth Street in the City and County of Riverside, California (Figure 1). Comprising approximately 0.4 acre, the Site is an irregular-shaped parcel which consists of the eastern portions of the six subject APNs (Figure 2). The Site is vacant and unpaved, and the previous structures and other improvements have been demolished and removed.

The surrounding area consists of mixture of commercial/light industrial parcels and vacant land areas. The western portions of the six subject APNs adjoin the Site to the west and front on Magnolia Avenue. The western end of Elizabeth Street adjoins the Site to the northeast. An unnamed alley, which extends south from the street, adjoins the Site to the east followed by the Plaza Substation. A driveway, which extends east from Magnolia Avenue to Elizabeth Street, adjoins the Site to the north followed by a veterinarian office. The Union Pacific Railroad tracks adjoin the Site to the south.

Ground surface elevations on the Site are approximately 830 to 840 feet above mean sea level. The Site is generally flat and level, with a gentle southerly slope. An apparent fill slope ascends west from the western Site boundary to filled pad on the western portions of the six subject APNs.

Background

Converse Phase I Environmental Site Assessment (ESA)

During December 2006 through April 2007, Converse conducted a Phase I ESA of 14 parcels, including the Site, the results of which are documented in a *Phase I ESA Report* (Converse, April 2, 2007). The *Phase I ESA Report* concluded that there is a potential for environmental impact to each of the 14 parcels, including the six subject APNs, and recommended further assessment of each of the six subject APNs.

Converse Limited Phase II ESAs

During 2008, Converse conducted six Limited Phase II ESAs, one for each of six subject APNs comprising the Site, which each involved borings and soil and/or soil gas sampling. The results of the six Limited Phase II ESAs are documented in six corresponding *Limited Phase II ESA Reports* by Converse dated June 12 (three), August 20, August 27, and December 31, 2008. The primary conclusions of five of the six *Limited Phase II ESA Reports* (excluding only the report for APN 225-052-10) were the following:

- There were significant tetrachloroethylene (PCE) concentrations in soil gas samples from the above five subject APNs, the largest of which were located adjacent to the former drycleaner machine in the south center of APN 225-052-019 (6186 Magnolia Avenue).
- The lateral and vertical trends in PCE concentrations in soil gas samples from these five subject APNs suggest that the source of the PCE is most likely the former drycleaner machine on APN 225-052-019.

The above five *Limited Phase II ESA Reports* recommended conducting coordinated additional Phase II ESA activities on APN 225-052-019, as well as on adjoining and nearby parcels to further evaluate the extent of PCE in soil gas and soil.

AMEC Site Assessments of APN 225-052-019

During March 2009, AMEC Geomatrix, Inc. (AMEC) conducted a Limited Phase II ESA of APN 225-052-019, the results of which are documented in a *Limited Phase II ESA* report (AMEC, July 17, 2009). The Limited Phase II ESA consisted of drilling two borings and collecting and analyzing soil and groundwater samples from the borings. Based on its review of the *Limited Phase II ESA* report, the SARWQCB "concluded that additional subsurface soil and groundwater investigations were necessary at the Site [APN 225-052-019], in order to determine the lateral and vertical extent of PCE in the soil and groundwater."

During November 2009, AMEC conducted the first Additional Site Assessment of APN 225-052-019, the results of which are documented in an *Additional Site Assessment*

Report (AMEC, March 17, 2010). The first Additional Site Assessment consisted of drilling and sampling three borings located the southern and northern boundaries of APN 225-052-019 to determine the lateral and vertical extent of PCE in soil and groundwater. PCE was not detected in any soil samples from the northern soil boring. PCE concentrations were a maximum of 33 micrograms per kilogram (µg/kg) in some soil samples from the two southern borings. PCE concentrations were 3.0 and 5.3 micrograms per liter (µg/L) in groundwater samples from the two southern borings which extended to groundwater.

During March through September 2010, AMEC conducted the second Additional Site Assessment of APN 225-052-019, the results of which are documented in an *Additional Site Assessment Addendum Report* (AMEC, October, 2010). The second Additional Site Assessment consisted of investigation and removal of the sewer laterals, as well as assessment and removal of a brick-lined 'dry well' that was encountered beneath the former drycleaner building after the sewer lateral was removed. Soil potentially impacted by PCE was excavated to depths ranging from 3.5 to 15 feet bgs from four locations associated with the sewer laterals and associated floor drains, and the excavated soil was disposed of offsite. Soil samples were collected and analyzed from the sewer laterals, floor drains and excavations. Two soil borings were drilled and sampled, one within the 'dry well' and one adjacent to it; the maximum PCE concentration was 87 micrograms per kilogram (µg/kg) in the soil samples from the two soil borings.

In its March 16, 2011 letter, the SARWQCB concluded: "Based on Board staff's review of the analytical data for the Site [APN 225-052-019], it does not appear that additional soil excavation or groundwater investigation will be necessary at this time." The SARWQCB also made the following request for a *Soil Vapor Assessment Work Plan*: "Please notify us within 30 days of completion of the Magnolia Avenue Grade Separation Project. At that time, the City should also submit a work plan and schedule, proposing to conduct an additional soil vapor investigation of the potential commercial spaces for a Screening-level Human Health Risk Assessment. The work plan will be subject to Board staff's approval."

Geology and Hydrogeology

The Site is underlain by old alluvial fan deposits (late to middle Pleistocene geologic age). Soil underlying the Site consists primarily of sands, sandy silts, silty clays and clayey silts, based on the 2008 Converse and 2009 AMEC *Limited Phase II ESA*s. An approximately 5- to 10-foot thick fine-grained (silty and clayey) layer underlies the Site, the top of which is approximately 28 to 30 feet below ground surface (bgs).

During 2009, the depth to groundwater underlying APN 225-052-019 to the west of the Site was approximately 78 to 79 feet bgs, based on the 2009 AMEC *Limited Phase II ESA*. An east-northeasterly groundwater flow direction is inferred underlying the Site, based on a 2008 Phase II ESA that Converse conducted at 6311 Magnolia Avenue, approximately 700 feet southwest of the Site.

Objectives

The objectives of this Soil Vapor Survey are to:

- Evaluate potential impacts from volatile organic compounds (VOCs) in soil gas on the Site; and
- Evaluate potential vapor intrusion (VI) into future buildings on the Site from VOCs in soil gas.

Scope of Work

A Professional Geologist supervised all work on this project. In summary, the Soil Vapor Survey consisted of the following:

- Advancing 16 soil vapor probe borings;
- Installing two soil vapor probes in each boring (a total of 32 probes);
- Collecting soil gas samples from each probe; and
- Analyzing each of the soil gas samples for VOCs; and
- Conducting a screening-level Human Health Risk Assessment (HHRA); and
- Preparing this Soil Vapor Survey Report.

Work Plan Preparation

Converse prepared a Work Plan dated June 24, 2013 (attached) which describes the technical methods and field procedures to be used during field investigation and sample analyses. The Work Plan was submitted to and approved by the SARWQCB.

Project Set-up

Converse prepared a site-specific Health and Safety Plan prior to fieldwork. Converse field marked the boring locations, and notified Underground Service Alert (USA) prior to conducting the Soil Vapor Survey fieldwork. Prior to advancing each boring, potential locations of nearby underground (UG) utilities and other UG structures were evaluated by field observation.

Borings and Soil Gas Probe Installation

On July 31, 2013 soil vapor borings (SV1 through SV16) were advanced on the Site at the approximate locations depicted on Figure 2. Each boring was first hand augered to approximately 3 feet bgs to check for underground utilities and was then advanced to approximately 15 feet bgs using Geoprobe direct-push methods by Converse's subcontractor, Interphase Environmental, Inc. A Converse geologist supervised boring advancement, soil gas probe (implant) installation and soil gas sample collection. Soil gas sampling was conducted in general accordance with the *Advisory – Active Soil Gas Investigations* (DTSC and LARWQCB, April 2012).

A lower (15-foot) soil gas implant attached to nylaflow tubing was first installed in each boring, and a sand pack was placed around each lower implant and extending approximately 6 inches above it. A granular bentonite seal was then placed above the sand pack extending up to the upper sample interval (approximately 5 feet bgs) and was hydrated in-place. An upper (5-foot) soil gas implant attached to nylaflow tubing was installed in each boring above the bentonite seal, and a sand pack was placed around and above each upper implant. A final hydrated granular bentonite seal was placed above the upper sand pack in each boring and extending to ground surface.

Soil Gas Sample Collection

The probes at each location were allowed to equilibrate for a minimum of two hours following installation and prior to soil gas sample collection by Jones Environmental, Inc. (JEI), a state-certified mobile laboratory. All VOCs are Not Detected (ND) in an ambient air blank which was collected prior to collecting the soil gas samples.

A purge volume test was conducted using 1, 3, and 10 purge volumes from the 15-foot probe in SV1, the first boring sampled. Three purge volumes, which had the largest VOCs concentrations detected during the purge test, were used for the samples.

The laboratory performed a shut-in test prior to collecting each sample indicating no leaks in the aboveground fittings. Prior to sample collection, a paper towel soaked with a tracer gas mixture of n-propanol and n-pentane was placed at the interface of the tubing and ground surface at each boring. N-propanol and n-pentane were analyzed during the EPA Method 8260B analyses of each sample to determine if there was leakage of surface air into the probes during purging/sampling. N-propanol and n-pentane are ND in all of the samples analyzed, indicating that there was no detected leakage of surface air.

The 32 soil gas samples, plus two purge test samples and two duplicate samples, were each collected using the following procedures: A pump and vacuum gauge was connected to the sampling tube from each depth interval via a three-way valve. The sampling train was next purged of three purge volumes as determined during the purge test at a flow rate of 100 to 200 milliliters per minute. Each soil gas sample was then collected by JEI in a gas-tight glass syringe which was connected to the implant tubing via the three-way valve.

After soil gas sample collection, the probe tubing was removed and surface cover was restored at each boring location to match surrounding areas.

Soil Gas Sample Analytical Methods

On July 31, 2013, the 32 soil gas samples, together with the two purge test samples, two duplicate samples, the ambient air blank and QA/QC blanks, were analyzed onsite for VOCs using EPA Method 8260B by JEI, the state-certified mobile laboratory. JEI analyzed all soil samples within one-half hour after collection and therefore, recommended holding times were met for all soil gas sample analyses.

JEI did not report estimated values for soil gas sample analytical results less than Practical Quantitation Limits (PQLs), which are also Method Reporting Limits (MRLs). JEI did not dilute any soil gas samples prior to analysis.

Screening Levels

The California Environmental Protection Agency has established health-risk based California Human Health Screening Levels (CHHSLs) to be used when evaluating the concentrations of selected analytes, including VOCs in soil gas. CHHSLs have been established for Residential and Commercial/Industrial Scenarios (CHHSL-Rs and CHHSL-Is, respectively). CHHSL-Is are considered the appropriate screening levels for the Site based on its past and anticipated future land use. In addition, there are two types of CHHSL-Is for soil gas: the larger CHHSL-Is are for buildings constructed *with* engineered fill below sub-slab gravel, and the smaller CHHSL-Is are for buildings *without* engineered fill. The smaller CHHSL-Is are appropriate for the Site in its current undeveloped, vacant condition. The larger CHHSL-Is are appropriate for future buildings which may be constructed on the Site *with* an engineered fill blanket.

Soil Gas Sample Analytical Results

The soil gas sample analytical results are summarized in Table 1 and Figure 3, and the complete laboratory analytical report, together with chain of custody documentation, is attached. Review of the soil gas sample analytical results indicates the following:

- PCE concentrations range from 0.024 to 14.4 µg/L in 33 of the 36 soil gas samples, including both duplicate samples and both purge test samples.
- The PCE concentrations (2.08 to 14.4 µg/L) exceed the two CHHSL-Is for PCE (0.60 and 1.6 µg/L) in 13 of these 33 soil gas samples, including both duplicate samples and both purge test samples. The largest PCE concentrations (3.86 to 14.4 µg/L) are in the eight soil gas samples from three borings (SV1, SV3 and SV6), which are located in the northwestern portion of the Site, along its western boundary and adjacent to the former drycleaners.
- PCE is ND above the PQL (0.020 µg/L), which is less than the two CHHSL-Is for PCE (0.60 and 1.6), in the remaining three samples.
- Trichloroethylene (TCE) concentrations are 0.054 and 0.050 µg/L in the 15-foot soil gas samples from borings SV1 and SV3, respectively, the samples which also had the two largest PCE concentrations. TCE is ND above PQL (0.020 µg/L) in the remaining 34 samples. All of the TCE analytical results are less than the CHHSL-Is for TCE (1.8 and 4.4 µg/L).
- Toluene concentrations range from 0.031 to 0.276 µg/L in six soil gas samples, and toluene is ND above in the PQL (0.020 µg/L) in the remaining 30 samples. All toluene analytical results are less than the CHHSL-Is for toluene (380 and 890 µg/L).
- Xylenes concentrations are 0.112 and 0.158 µg/L in two soil gas samples, and xylenes are ND above the PQL (0.020 µg/L) in the remaining 34 samples. All xylenes analytical results are less than the CHHSL-Is for xylenes (880 and 2,100 µg/L).

- All of the other VOCs in the 36 soil gas samples are ND above the PQLs (0.020 or 0.100 µg/L), which are less than the corresponding CHHSL-Is.

Human Health Risk Assessment

Converse conducted a screening-level HHRA to evaluate the potential human health effects from the intrusion of VOC vapors from Site soil into future structures on the Site. For the purpose of the HHRA, the potential VI risks were calculated based on a commercial land use scenario.

The risk assessment for human health effects involves identifying chemicals of potential concern (COPCs), evaluating exposure pathways and media of concern, assessing chemical toxicity, and subsequently, characterizing risks. Estimated health risks are based on a calculated dose (i.e., amount of chemical intake), that integrates exposure parameters for the receptors of concern (e.g., reference doses and slope factors) and chemical concentrations. The calculated risks are then compared to health-based levels deemed acceptable.

Exposure to chemicals can only occur if there is a complete pathway by which chemicals in soil, water, or air can be contacted by humans. Therefore, the identification of COPCs and evaluation of exposure pathways are the first steps in the HHRA. Potential dose and risk are then calculated based on an evaluation of potential exposure concentrations to the COPCs, and their toxicity.

Chemicals of Potential Concern

Site history and background information indicated the offsite uses of concern adjacent to the Site included dry cleaning operations, which involved the handling and storage of solvents, specifically PCE and TCE. The analytical results indicate that the following four VOCs were detected in the soil gas samples analyzed using EPA Method 8260B: PCE, TCE, toluene and xylenes.

Three of these four VOCs, TCE, toluene and xylenes, were reported in two or six of the 36 samples analyzed (Table 1). A comparison of Site Maximum Concentrations for these three VOCs to their respective CHHSL-Is is presented below:

VOC	Number of Detections	Site Maximum Concentration (µg/L)	CHHSL-I w/ Engineered Fill (µg/L)	CHHSL-I w/o Engineered Fill (µg/L)
TCE	2	0.054	1.8	4.4
Toluene	6	0.276	380	890
Xylenes	2	0.158	880	2,100

TCE, toluene and xylenes were not evaluated further, because the Site Maximum Concentrations are each significantly less than the corresponding CHHSL-Is.

Conceptual Site Model

The exposure routes of concern for the site receptors include exposure to maximum concentrations of VOCs emanating from soil to indoor air. A Conceptual Site Model (CSM) for the Site is presented in Figure 4.

There is a small potential for VOCs to volatilize from soil vapor and then migrate to outdoor air. However, typically VOCs concentrations are not sufficient to pose a risk via the outdoor air pathway. Generally, when VOCs are detected in soil vapor the indoor air pathway is considered to be a much more conservative pathway.

HHRA Modeling

The carcinogenic risk and non-carcinogenic Hazard Index (HI) from potential migration of subsurface vapors into indoor air were estimated using the EPA Johnson-Ettinger Advanced Soil Gas Screening Model (J&E Model), modified to incorporate California toxicity criteria. The J&E Model accounts for both the diffusion of chemicals through the subsurface, as well as advection due to pressure differentials between the soil and buildings. The J&E Model results are summarized in the Risk Characterization Summary below, and the J&E Model worksheets are attached. The Uncertainty Analysis below presents factors in the risk assessment that may result in an overestimation or underestimation of risk for consideration of risk management.

For purposes of the HHRA the following default parameters were used:

- Soil Type: Default parameters for loam were used for the upper 5 feet of Site soil, which is predominantly silty clay and clayey silt. Default parameters for engineered fill were used for the upper 18 inches of soil (Table B-4, Appendix 1, *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*, CalEPA, January 2005).
- Exposure Scenario. The risk was calculated for a commercial land use scenario. The commercial land use scenario is based upon an exposure frequency of 250 days per year and an exposure duration of 25 years. This exposure frequency and duration are very conservative for buildings anticipated on the Site, which will actually be occupied for a maximum of few hours per month, except during building construction and installation of equipment contained in the building.

Exposure Point Concentrations

To evaluate the potential exposure to indoor air from the VI pathway, the potential exposure point concentration (EPC) was determined by using the Site Maximum Concentration of PCE from 5-foot soil gas samples.

The Site Maximum Concentration of PCE is 8.78 µg/L in the 5-foot sample from boring SV3. PCE concentrations (2.08 to 8.78 µg/L) in four 5-foot samples and one duplicate are greater than the CHHSL-Is for buildings *with* and *without* engineered fill (1.6 and

0.60 µg/L, respectively). For the J&E Model calculations, the PCE concentrations were converted to micrograms per cubic meter (µg/m^3), equal to 1,000 µg/L.

The 95 Percent Upper Confidence Limit (95UCL) Concentration for PCE in 5-foot samples was calculated using EPA proUCL software, version 4.00.04 (proUCL output attached). 95UCL concentrations for the other three VOCs reported were not calculated due to the limited number of detections (six samples or less). Toluene and xylenes were not evaluated further due to the limited detections and small concentrations for each. TCE was not evaluated further because TCE is ND in all of the 5-foot samples.

A summary of the input parameters, including Site Maximum and 95UCL Concentrations and the Unit Risk Factor (URF) and Reference Concentration (RfC), are presented in Table 2 (attached).

Risk Characterization Summary

Based on the J&E Model and a commercial exposure scenario, the estimated carcinogenic risk and non-carcinogenic HI from potential VI of PCE for buildings constructed *without* engineered fill are:

	Estimated Total Cancer Risk	**Estimated Non-Carcinogenic HI**
Site Maximum Concentration	3.70×10^{-6}	0.0418
95UCL Concentration	1.71×10^{-6}	0.0194

The estimated carcinogenic risk and non carcinogenic HI from potential VI of PCE for buildings constructed *with* engineered fill are:

	Estimated Total Cancer Risk	**Estimated Non-Carcinogenic HI**
Maximum Concentration	2.76×10^{-6}	0.0312
95UCL Concentration	1.28×10^{-6}	0.0145

All four total estimated cancer risks are within the EPA discretionary range of 1×10^{-6} to 1×10^{-5} and are less than the point of departure for commercial/industrial land use of 1×10^{-5}. All four estimated non carcinogenic HIs are less than the target HI of 1.

Uncertainty Analysis

The purpose of a risk assessment is not to predict the actual risk of exposure to an individual. Risk assessments instead are a management tool for developing conservative estimates of health hazards, which are likely to overestimate the true risk for potentially-exposed populations.

As a result, the numerical estimates in a risk assessment (risk values) have associated uncertainties reflecting the limitations in available knowledge about Site concentrations and exposure assumptions (e.g., chronic exposure concentrations, intake rates, frequency of time spent at the site), and chemical toxicity. Where information is incomplete, conservative (over-protective) assumptions must be made. In other words, although calculations of exposure often must be simplified to a few pathways or subgroups within a population, the simplifying assumptions should be more likely to overestimate rather than underestimate risk so that public health is protected regardless of other unknown conditions. Even when actual characteristics of a population are known, assumptions on exposure are often biased toward producing over-protective rather than under-protective health risk estimates for the majority of the population.

The estimated risk and HI presented in this HHRA were based on the J&E Model default parameters of one air change per hour (ACH) and a ceiling height of 10 feet (304 cm). Increasing the air exchange rate and/or ceiling height would reduce the estimated risk and HI. For example doubling the air exchange rate to two ACH would reduce the estimated risk and HI to one-half. Increasing the ceiling height from 10 to 12 feet would further reduce the estimated risk and HI by 17 percent. Reducing the air exchange rate and/or ceiling height would instead increase the estimated risk and HI.

The estimated risk and HI were calculated based on a commercial land-use scenario. The commercial land use scenario is based upon an exposure frequency of 250 days per year and an exposure duration of 25 years. This exposure frequency and duration are very conservative for buildings anticipated on the Site, which will actually be occupied only for a maximum of a few hours per month, excluding during building construction and installation/maintenance/repair of equipment contained in the building. The exposure frequency and duration, based on the commercial land use scenario, are very conservative for buildings anticipated on the Site, which will actually be occupied only for a maximum of a few hours per month, excluding during building construction and installation/maintenance/repair of equipment contained in the building.

In summary, because a screening-level HHRA contains multiple sources of uncertainty, simplifying assumptions are often made so that health risks can be estimated. A screening-level HHRA is intended to overestimate, not underestimate, potential risk.

HHRA Findings

The estimated carcinogenic risks from VI for buildings constructed *with* and *without* engineered fill are 2.76×10^{-6} and 3.7×10^{-6}, respectively, based on the Site Maximum Concentration of PCE in 5-foot samples. The estimated carcinogenic risks from VI for buildings constructed *with* and *without* engineered fill are 1.28×10^{-6} and 1.71×10^{-6}, respectively, based on the 95UCL Concentration of PCE in 5-foot samples. All four estimated carcinogenic risks for PCE are within the EPA discretionary range of 1×10^{-6} to 1×10^{-5} and are less than the point of departure for commercial/industrial land use of 1×10^{-5}.

The estimated non-carcinogenic HIs from VI for buildings constructed *with* and *without* engineered fill are 0.0312 and 0.0418, respectively, based on the Site Maximum Concentration of PCE in 5-foot samples. The estimated non-carcinogenic HIs from VI for buildings constructed *with* and *without* engineered fill are 0.0145 and 0.0194, respectively, based on the 95UCL Concentration of PCE in 5-foot samples. All four non-carcinogenic HIs from VI are less than the target HI of 1.

Conclusions

Converse has performed a Soil Vapor Survey at the Site in general conformance with the following objectives: 1) to evaluate potential impacts from VOCs in soil gas on the Site; and 2) potential VI into future buildings on the Site from VOCs in soil gas. It is our opinion that the two objectives of the Soil Vapor Survey were met, and no additional assessment is necessary. It is also our opinion that the field data and sample analytical results validated the Conceptual Site Model.

Based on the results of the Soil Vapor Survey, Converse concludes the following:

- The PCE concentrations (2.08 to 14.4 µg/L) exceed the two CHHSL-Is for PCE (0.60 and 1.6 µg/L) in 13 of the 36 soil gas samples, including both duplicate samples and both purge test samples.
- The largest PCE concentrations (3.86 to 14.4 µg/L) are in the eight soil gas samples from three borings (SV1, SV3 and SV6), which are located in the northwestern portion of the Site, along its western boundary and adjacent to the former drycleaners.
- All of the other soil gas sample analytical results are less than corresponding CHHSL-Is in all 36 soil gas samples.
- PCE concentrations in soil gas samples on the Site generally decrease with increasing distance east and south from the drycleaners former located offsite to the west. PCE concentrations also decrease upward in 15 of the 16 borings on the Site. These lateral and vertical concentration trends indicate that the PCE in soil gas samples on the Site is apparently due to past releases from the former offsite drycleaners.
- Based on the HHRA, the four total estimated cancer risks for VI of PCE (1.28×10^{-6} to 3.70×10^{-6}) are all within the EPA discretionary range of 1×10^{-6} to 1×10^{-5} and are all less than the point of departure for commercial/industrial land use of 1×10^{-5}.
- Based on the HHRA, the four estimated non-carcinogenic HIs for VI of PCE (0.0145 to 0.0418) are all less than the target HI of 1.
- The exposure frequency and duration for the commercial land use scenario, which was used during the HHRA, are very conservative for buildings anticipated on the Site, which will actually be occupied only for a maximum of a few hours per month.

Recommendations

Based on the above information, Converse does not recommend additional assessment of the Site because the two objectives of the Soil Vapor Survey were met.

VI control and mitigation measures are not considered necessary for future buildings, if any, constructed on the Site for the following reasons:

- Based on the HHRA, the four total estimated cancer risks for VI of PCE (1.28×10^{-6} to 3.70×10^{-6}) are all within the EPA discretionary range of 1×10^{-6} to 1×10^{-5} and are all less than the point of departure for commercial/industrial land use of 1×10^{-5}.
- Based on the HHRA, the four estimated non-carcinogenic HIs for VI of PCE (0.0145 to 0.0418) are all less than the target HI of 1.
- The exposure frequency and duration for the commercial land use scenario, which were used during the HHRA, are very conservative for buildings anticipated on the Site, which will actually be occupied only for a maximum of a few hours per month.

Reliance

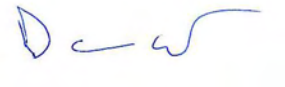
This Soil Vapor Survey Report is for the sole benefit and exclusive use of City of Riverside in accordance with the terms and conditions that are presented in our Proposal dated May 31, 2013 under which these services have been provided. The preparation of this Report has been in accordance with generally accepted environmental practices. No other warranty, either expressed or implied, is made.

This Report should not be regarded as a guarantee that no further contamination, beyond that which could be detected within the scope of this assessment, is present at the Site. Converse makes no warranties or guarantees as to the accuracy or completeness of information provided or compiled by others. It is possible that information exists beyond the scope of this assessment. It is not possible to absolutely confirm the presence or absence of hazardous materials and/or substances at the Site. If none are identified as part of a limited scope of work, such a conclusion should not be construed as a guaranteed absence of such hazardous materials and/or substances, but merely as the results of the evaluation of the Site at the time of the assessment. Also, events may occur after the site visits, which may result in contamination of the Site. Additional information, which was not found or available to Converse at the time this Report was prepared, may result in a modification of the conclusions and recommendations presented herein.

Any reliance on this Report by Third Parties shall be at the Third Party's sole risk. Should the City of Riverside wish to identify any additional relying parties not previously identified, a completed Application of Authorization to Use (attached) must be submitted to Converse.

If you have any questions or comments regarding the contents of this Report, please contact Duncan Walker at (909) 796-0544 or Norman Eke at (626) 930-1260.

CONVERSE CONSULTANTS



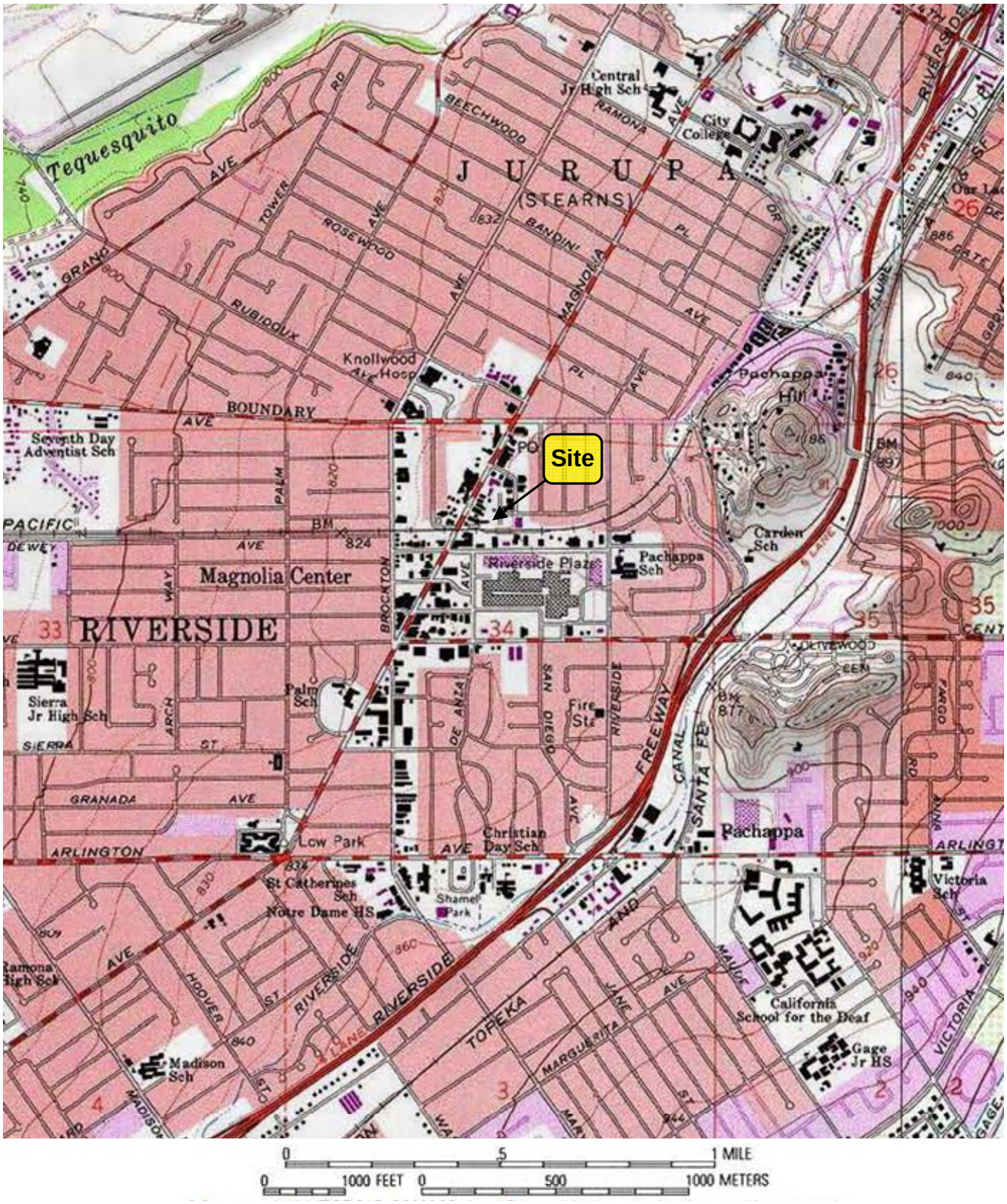
Duncan Walker, PG
Senior Geologist

Norman S. Eke
Managing Officer

Attachments:
Figure 1 Vicinity Map
Figure 2 Site Location Map
Figure 3 Boring Location Map
Figure 4 Conceptual Site Model
Table 1 Soil Gas Sample Analytical Results for Volatile Organic Compounds
Table 2 Site Toxicity Data and Input Parameters
Work Plan
Soil Gas Sample Laboratory Report and Chain of Custody Documentation
Human Health Risk Assessment Supporting Data
Application for Authorization to Use

Dist: PDF Via Email to Addressee

FIGURES 1 THROUGH 4



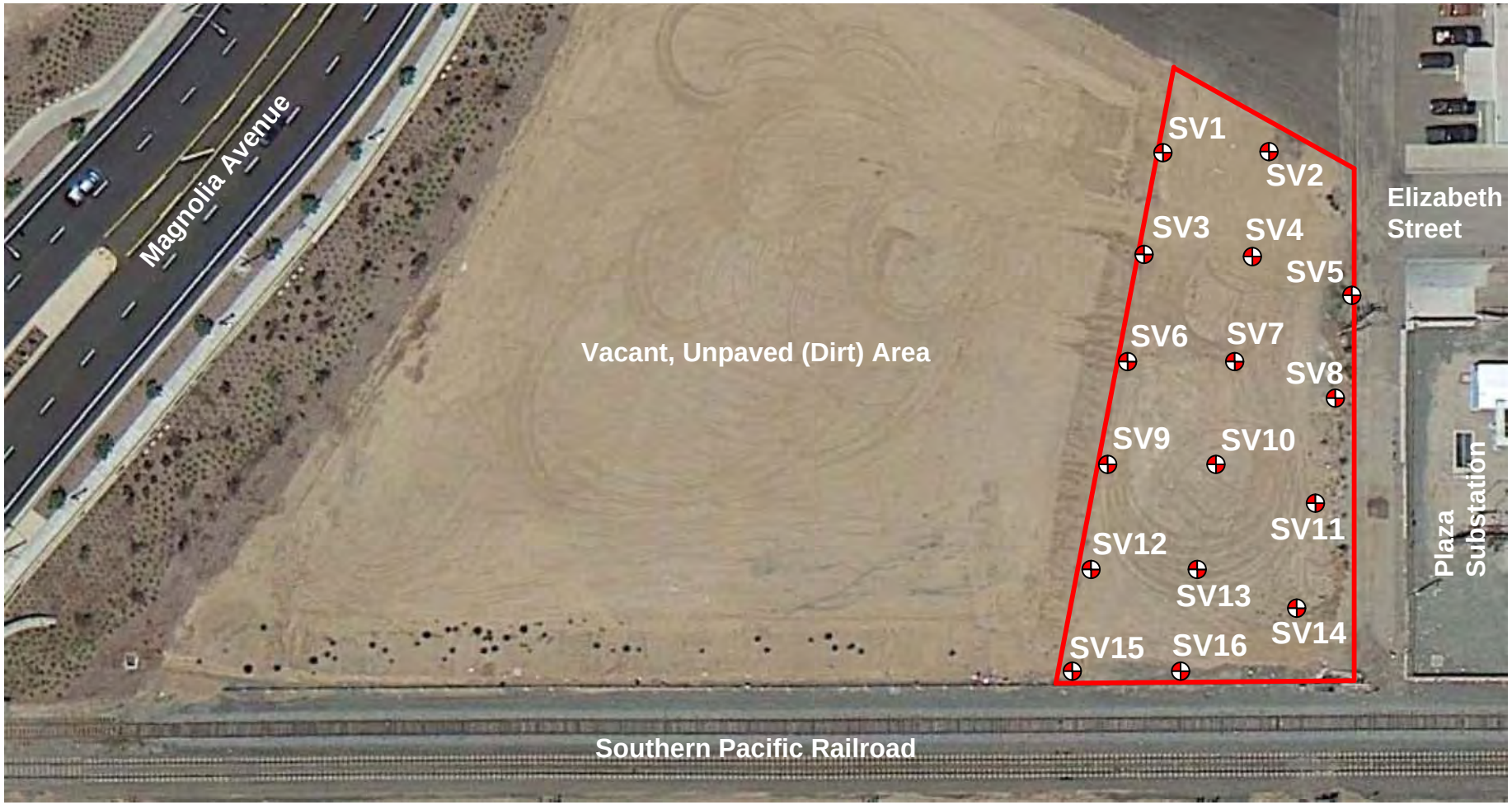
Vicinity Map

Client: City of Riverside, Public Utilities - Plaza Substation
Eastern Portions, APNs 225-052-005, -008, -009, -010, -019 & -021, Riverside, CA

Project No:
13-16-157-01

Converse Consultants

FIGURE
1



0 ft. 30 ft. 60 ft. 120 ft.

Map distances are approximate

Legend

- Approximate Site boundary
- Approximate boring location

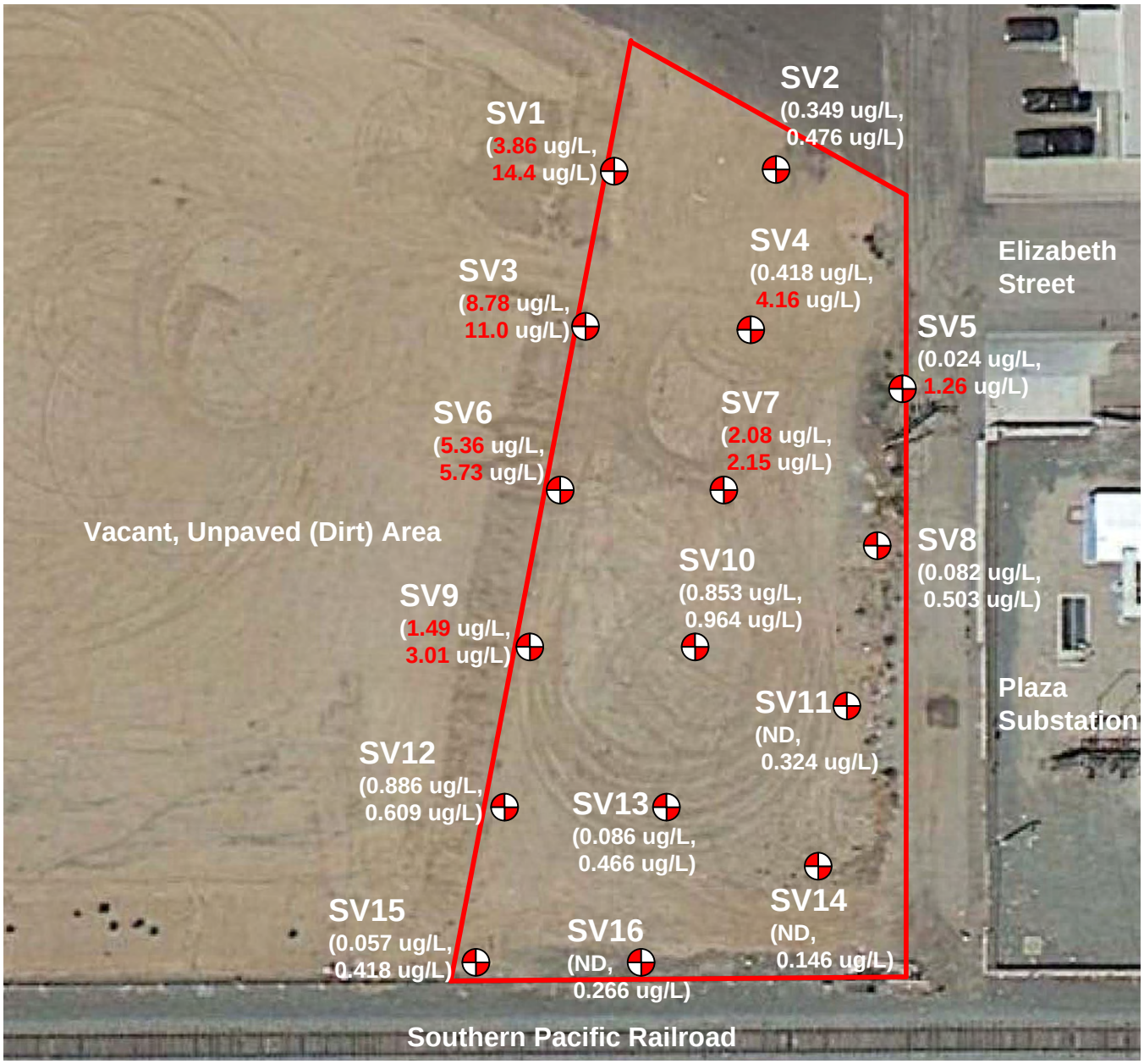
Site Location Map

Client: City of Riverside, Public Utilities - Plaza Substation
Eastern Portions, APNs 225-052-005, -008, -009, -010, -019 & -021, Riverside, CA

Project No:
13-16-157-01

Converse Consultants

FIGURE
2



Legend

Approximate Site boundary

Approximate boring location

PCE (tetrachlorethylene) concentrations for 5- and 15-foot soil gas samples listed in ug/L (micrograms per liter). Red text for PCE concentrations exceeding California Human Health Soil Screening Level-Industrial Scenario (CHHSL-I) with Engineered Fill (1.6 ug/L). ND = PCE Not Detected.

0 ft. 20 ft. 40 ft. 80 ft.

Map distances are approximate

Boring Location Map

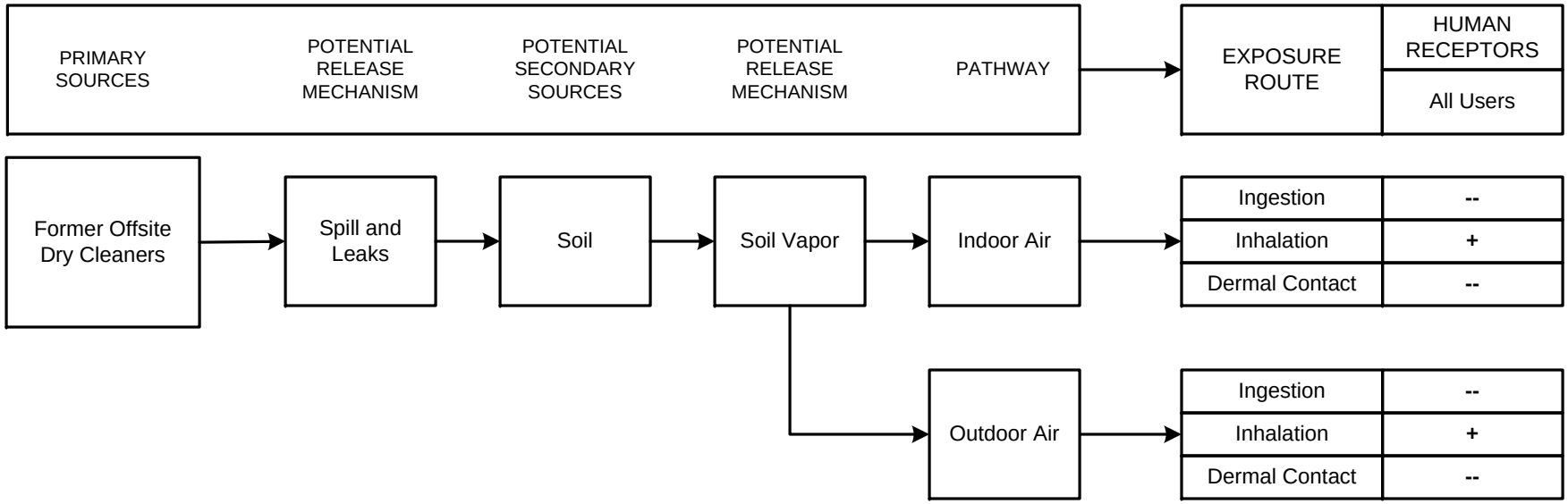
Client: City of Riverside, Public Utilities - Plaza Substation
Eastern Portions, APNs 225-052-005, -008, -009, -010, -019 & -021, Riverside, CA

Project No:
13-16-157-01

Converse Consultants

FIGURE
3

Conceptual Site Model



+ Complete Pathway
-- Incomplete Pathway

TABLES 1 AND 2

Table 1
Soil Gas Sample Analytical Results for Volatile Organic Compounds
Plaza Substation
Riverside, CA

Boring ID	Sample Date	Sample ID	Sample Depth (feet, bgs)	Volatile Organic Compounds (VOCs) EPA 8260B				
				PCE (µg/L)	TCE (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	All Other VOCs (µg/L)
SV1	07/30/2013	SV1-5'	5	3.86	ND	ND	ND	ND
		SV1-15' 1P	15	14.2	ND	ND	ND	ND
		SV1-15' 3P	15	14.4	0.054	ND	ND	ND
		SV1-15' 10P	15	13.2	ND	ND	ND	ND
SV2	07/30/2013	SV2-5'	5	0.349	ND	0.276	0.158	ND
		SV2-15'	15	0.476	ND	ND	ND	ND
SV3	07/30/2013	SV3-5'	5	8.78	ND	ND	ND	ND
		SV3-15'	15	11.0	0.050	ND	ND	ND
SV4	07/30/2013	SV4-5'	5	0.418	ND	0.186	0.112	ND
		SV4-15'	15	4.16	ND	ND	ND	ND
SV5	07/30/2013	SV5-5'	5	0.024	ND	0.192	ND	ND
		SV5-15'	15	1.26	ND	0.126	ND	ND
SV6	07/30/2013	SV6-5'	5	5.36	ND	ND	ND	ND
		SV6-15'	15	5.73	ND	ND	ND	ND
SV7	07/30/2013	SV7-5'	5	2.08	ND	ND	ND	ND
		SV7-15'	15	2.15	ND	ND	ND	ND
SV8	07/30/2013	SV8-5'	5	0.082	ND	ND	ND	ND
		SV8-15'	15	0.503	ND	ND	ND	ND
SV9	07/30/2013	SV9-5'	5	1.49	ND	ND	ND	ND
		SV9-5' DUP	5	1.45	ND	ND	ND	ND
		SV9-15'	15	3.01	ND	ND	ND	ND
		SV9-15' DUP	15	2.92	ND	ND	ND	ND
SV10	07/30/2013	SV10-5'	5	0.853	ND	ND	ND	ND
		SV10-15'	15	0.964	ND	0.031	ND	ND
SV11	07/30/2013	SV11-5'	5	ND	ND	ND	ND	ND
		SV11-15'	15	0.324	ND	ND	ND	ND
SV12	07/30/2013	SV12-5'	5	0.886	ND	ND	ND	ND
		SV12-15'	15	0.609	ND	0.086	ND	ND
SV13	07/30/2013	SV13-5'	5	0.086	ND	ND	ND	ND
		SV13-15'	15	0.466	ND	ND	ND	ND
SV14	07/30/2013	SV14-5'	5	ND	ND	ND	ND	ND
		SV14-15'	15	0.146	ND	ND	ND	ND
SV15	07/30/2013	SV15-5'	5	0.057	ND	ND	ND	ND
		SV15-15'	15	0.418	ND	ND	ND	ND
SV16	07/30/2013	SV16-5'	5	ND	ND	ND	ND	ND
		SV16-15'	15	0.266	ND	ND	ND	ND
Practical Quantitation Limit (PQL)				0.020	0.020	0.020	0.020	0.020 or 0.100
CHHSL-I (w/o Engineered Fill Below Buildings)				0.60	1.8	380	880	0.045 - 2,800
CHHSL-I (w/ Engineered Fill Below Buildings)				1.6	4.4	890	2,100	0.095 - 7,000

ND - Not Detected above PQL.
DUP - Field duplicate of the sample above
P - Purge volume test sample
µg/L - micrograms per liter
bgs - below ground surface
PCE - Tetrachloroethylene or Tetrachloroethene
TCE - Trichloroethylene or Trichloroethene
CHHSL-I - California Human Health Screening Level-Commercial/Industrial Scenario
PCE concentration exceeds both CHHSL-Is.
PCE concentration exceeds only CHHSL-I w/o Engineered Fill Below Buildings.

Table 2
Site Toxicity and Input Parameters
Plaza Substation
Riverside, CA

Parameter	Value	Note
PCE Concentrations (CAS 127184)		
Site Maximum Concentration at 5 feet bgs	8.78 µg/L ($8{,}780$ µg/m^3)	measured value
95UCL Concentration at 5 feet bgs	4.071 µg/L ($4{,}071$ µg/m^3)	measured value
CalEPA Toxicity Criteria - PCE		
Unit Risk Factor (URF)	5.96E-06 (ug/m^3)$^{-1}$	
Reference Concentration (RfC)	3.50E-02 mg/m^3	
Depth Below Grade to Bottom of Enclosed Space Floor	15 cm	default
Soil Gas Sampling Depth Below Grade	152.4 cm	measured value
Average Soil Temperature	24 °C	default
Site Soil		
Vadose Zone SCS Soil Type	Loam	Site soil
Vadose Zone Soil Dry Bulk Density	1.59 g/cm^3	default (Loam)
Vadose Zone Soil Total Porosity	0.399 n	default (Loam)
Vadose Zone Soil Water-Filled Porosity	0.148 cm^3/cm^3	default (Loam)
Engineered Fill		
Vadose Zone Soil Dry Bulk Density	1.8 g/cm^3	default (CHHSL)
Vadose Zone Soil Total Porosity	0.3 n	default (CHHSL)
Vadose Zone Soil Water-Filled Porosity	0.15 cm^3/cm^3	default (CHHSL)
Permeability	1.00E-08 cm^2	default
Average Vapor Flow Rate into Building	5 L/m	default
Averaging Time for Carcinogens	70 years	default
Averaging Time for Non-Carcinogens	30 years	default
Exposure Duration - Commercial Land Use Scenario	25 years	default
Exposure Frequency - Commercial Land Use Scenario	250 days/year	default
Air Exchange Rate - Commercial Land Use Scenario	1 ACH	default

PCE - Tetrachloroethylene or Tetrachloroethene
µg/L - micrograms per liter
µg/m^3 - micrograms per cubic meter
mg/m^3 - milligrams per cubic meter
cm - centimeter
g/cm^3 - grams per cubic centimeter
cm^3/cm^3 - cubic centimeters per cubic centimeter
cm^2 - square centimeters
L/m - liters per minute
ACH - Air Changes per Hour
CHHSL - *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*, Appendix 1 (CalEPA, January 2005).

WORK PLAN

Converse Consultants

Geotechnical Engineering, Environmental and Groundwater Science, Inspection and Testing Services

June 24, 2013

Mr. Kamron Saremi, PE
WRC Engineer
Santa Ana Regional Water Quality Control Board (SARWQCB)
Site Cleanup Section
3737 Main Street, Suite 500
Riverside, CA 92501-3348

Subject: **WORK PLAN - SOIL VAPOR SURVEY**
Plaza Substation
Eastern Portions of APNs 225-052-005, -008, -009, -010, -019 and -021
Riverside, California
Converse Project No. 113-16-157-01

Mr. Saremi:

Converse Consultants (Converse) has prepared this Work Plan on behalf of our client, the City of Riverside, to conduct a Soil Vapor Survey at the Site, which consists of the Eastern Portions of the six subject Assessors Parcel Numbers (APNs). The Scope of Work is in general accordance with a letter from the SARWQCB dated March 16, 2011, and with the *Advisory – Active Soil Gas Investigations* (Department of Toxic Substance Control (DTSC) and Los Angeles Regional Water Quality Control Board (LARWQCB), April 2012).

In summary, the Soil Vapor Survey will consist of the following:

- Advancing 16 soil vapor probe borings;
- Installing two soil vapor probes in each boring (a total of 32 probes);
- Collecting soil gas samples from each probe; and
- Analyzing each of the soil gas samples for volatile organic compounds (VOCs); and
- Conducting a screening-level Human Health Risk Assessment (HHRA); and
- Preparing a Soil Vapor Survey Report.

Site Description

The Site consists of the eastern portions of the six APNs as depicted on the enclosed *Boring Location Map*. The Site is located along the eastern side of Magnolia Avenue northeast of its intersection with Merrill Avenue in the City and County of Riverside, California. The Site is apparently vacant and unpaved, and the previous structures and other improvements have apparently been demolished and removed.

The surrounding area consists of mixture of commercial/light industrial parcels and vacant land areas. The western end of Elizabeth Street adjoins the Site to the east, together with an unnamed alley extending north and south from it. The Union Pacific Railroad tracks adjoin the Site to the south.

Ground surface elevations on the Site are approximately 830 to 840 feet above mean sea level. The Site is generally flat and level, with a gentle westerly regional slope.

Background

Converse Phase I Environmental Site Assessment (ESA)

During December 2006 through April 2007, Converse conducted a Phase I ESA of 14 parcels, including the Site, the results of which are documented in a *Phase I ESA Report* (Converse, April 2, 2007). The *Phase I ESA Report* concluded that there is a potential for environmental impact to each of the six Site APNs and recommended further assessment of the each of six Site APNs.

Converse Limited Phase II ESAs

During 2008, Converse conducted six Limited Phase II ESAs, one for each of six APNs comprising the Site, which each involved borings and soil and/or soil gas sampling. The results of the six Limited Phase II ESAs are documented in six corresponding *Limited Phase II ESA Reports* by Converse dated June 12 (three), August 20, August 27, and December 31, 2008). The primary conclusions of five of the six *Limited Phase II ESA Reports* (excluding only the report for APN 225-052-10) were the following:

- There were significant tetrachloroethene (PCE) concentrations in soil gas samples from the above five Site APNs, the largest of which were located adjacent to the former drycleaner machine in the south center of APN 225-052-019 (6186 Magnolia Avenue).
- The lateral and vertical trends in PCE concentrations in soil gas samples from these five Site APNs suggest that the source of the PCE is most likely the former drycleaner machine on APN 225-052-019.

The above five *Limited Phase II ESA Reports* recommended conducting coordinated additional Phase II ESA activities on APN 225-052-019, as well as on adjoining and nearby parcels to further evaluate the extent of PCE in soil gas and soil.

AMEC Site Assessments of APN 225-052-019

During March 2009, AMEC conducted a Limited Phase II ESA of APN 225-052-019, the results of which are documented in a *Limited Phase II ESA* report (AMEC Geomatrix, Inc. (AMEC), July 17, 2009). The Limited Phase II ESA consisted of drilling two borings and collecting and analyzing soil and groundwater samples from the borings. Based on its review of the *Limited Phase II ESA* report, the SARWQCB "concluded that additional subsurface soil and groundwater investigations were necessary at the Site [APN 225-052-019], in order to determine the lateral and vertical extent of PCE in the soil and groundwater."

During November 2009, AMEC conducted the first Additional Site Assessment of APN 225-052-019, the results of which are documented in an *Additional Site Assessment Report* (AMEC, March 17, 2010). The first Additional Site Assessment consisted of drilling and sampling three borings located the southern and northern boundaries of APN

225-052-019 to determine the lateral and vertical extent of PCE in soil and groundwater. PCE was not detected in any soil samples from the northern soil boring. PCE concentrations were a maximum of 33 micrograms per kilogram (µg/kg) in some soil samples from the two southern borings. PCE concentrations were 3.0 and 5.3 micrograms per liter (µg/L) in groundwater samples from the two southern borings which extended to groundwater.

During March through September 2010, AMEC conducted the second Additional Site Assessment of APN 225-052-019, the results of which are documented in an *Additional Site Assessment Addendum Report* (AMEC, October, 2010). The second Additional Site Assessment consisted of investigation and removal of the sewer laterals, as well as assessment and removal of a brick-lined 'dry well' that was encountered beneath the former drycleaner building after the sewer lateral was removed. Soil potentially impacted by PCE was excavated to depths ranging from 3.5 to 15 feet bgs from four locations associated with the sewer laterals and associated floor drains, and the excavated soil was disposed of offsite. Soil samples were collected and analyzed from the sewer laterals, floor drains and excavations. Two soil borings were drilled and sampled, one within the 'dry well' and one adjacent to it; PCE concentrations were a maximum of 87 µg/kg in the soil samples from the two soil borings.

In its March 16, 2011 letter, the SARWQCB concluded: "Based on Board staff's review of the analytical data for the Site [APN 225-052-019], it does not appear that additional soil excavation or groundwater investigation will be necessary at this time." The SARWQCB also made the following request for a *Soil Vapor Assessment Work Plan*: "Please notify us within 30 days of completion of the Magnolia Avenue Grade Separation Project. At that time, the City should also submit a work plan and schedule, proposing to conduct an additional soil vapor investigation of the potential commercial spaces for a Screening-level Human Health Risk Assessment. The work plan will be subject to Board staff's approval."

Geology and Hydrogeology

The Site is underlain by old alluvial fan deposits (late to middle Pleistocene geologic age). Soil underlying the Site consists primarily of sands, sandy silts, silty clays and clayey silts, based on the 2008 Converse and 2009 AMEC *Limited Phase II ESA*s. An approximately 5- to 10-foot thick fine-grained, silty and clayey, layer underlies the Site, the top of which is approximately 28 to 30 feet below ground surface (bgs).

During 2009, the depth to groundwater underlying APN 225-052-019 to the west of the Site was approximately 78 to 79 feet bgs, based on the 2009 AMEC *Limited Phase II ESA*. An east-northeasterly groundwater flow direction is inferred underlying the Site, based on a 2008 Phase II ESA that Converse conducted at 6311 Magnolia Avenue, approximately 700 feet southwest of the Site.

Objectives

The objectives of this Soil Vapor Survey are to:

- Evaluate potential impacts from VOCs in soil gas on the Site; and
- Evaluate potential vapor intrusion into future buildings on the Site from VOCs in soil gas.

Conceptual Site Model

- **Target Analytes**: The results of the existing Phase II ESAs for the Site indicate potential for impacts from VOCs (primarily PCE) to soil gas.
- **Target Analytes First Entered the Environment**: The results of the Limited Phase II ESAs for the Site indicate that the target analytes (VOCs) would have first entered the environment by surface spills or releases to the surface and subsurface soil.
- **Environmental Media and Locations Most Likely to Have the Highest Concentrations of Target Analytes**: Soil vapor is the environmental media most likely to have the highest concentrations of target analytes. Soil vapor probe borings will be arrayed in a grid pattern across the Site.

Scope of Work

The Scope of Services will involve the following seven tasks. A Professional Geologist will supervise all work on this project.

Task 1 Work Plan Preparation

Converse has prepared this Work Plan which describes the technical methods and field procedures to be used during field investigation and sample analyses. This Work Plan will be submitted to the SARWQCB for approval.

Task 2 Project Set-up

Converse will prepare a site-specific Health and Safety Plan prior to fieldwork. Converse will field mark the boring locations, and Underground Service Alert (USA) will be notified at least 48 hours prior to Soil Vapor Survey fieldwork.

Task 3 Borings and Soil Gas Sample Collection

Sixteen soil vapor borings will be advanced on the Site at the approximate locations depicted on the enclosed *Boring Location Map*. Each boring will be hand augered to approximately 3 feet bgs to check for underground utilities and will then be advanced to approximately 15 feet bgs using Geoprobe direct-push methods. A Converse geologist will supervise boring advancement, soil gas probe (implant) installation and soil gas sample collection. Soil gas sampling will be conducted in general accordance with the *Advisory – Active Soil Gas Investigations* (DTSC and LARWQCB, April 2012).

A lower (15-foot) soil gas implant attached to Teflon sample tubing will first be installed in each boring, and a sand pack will be placed around each lower implant and extending

approximately 6 inches above it. A granular bentonite seal will then be placed above the sand pack extending up to the upper sample interval (approximately 5 feet bgs) and will be hydrated in-place. An upper (5-foot) soil gas implant attached to Teflon sample tubing will be installed in each boring above the bentonite seal, and a sand pack will be placed around and above each upper implant. A final hydrated granular bentonite seal will be placed above the upper sand pack in each boring and extending to ground surface.

The probes at each location will be allowed to equilibrate for a minimum of two hours following installation and prior to soil gas sample collection by an onsite state-certified mobile laboratory. An ambient air blank will be collected prior to collecting the soil gas samples. A purge volume test will be conducted using 1, 3, and 10 purge volumes from the 5-foot probe in the first boring sampled. The remaining sample purge volumes will be based upon the purge volume having the largest VOCs concentrations detected during the purge test.

The laboratory will perform a shut-in test prior to collecting each sample indicating no leaks in the aboveground fittings. Prior to sample collection, a rag soaked with a tracer gas mixture of n-propanol and n-pentane will be placed at the interface of the tubing and ground surface at each boring. N-propanol and n-pentane will be analyzed during the EPA Method 8260B analytical run for each sample to determine if there was leakage of surface air into the probes during purging/sampling.

The 32 soil gas samples, plus two purge test samples and three duplicate samples, will be collected using the following procedures: A pump and vacuum gauge will be connected to the sampling tube from each depth interval via a three-way valve. The sampling train will next be purged of the number of purge volumes determined during the purge test at a flow rate of 100 to 200 milliliters per minute. Each soil gas sample will then be collected by the laboratory in a gas-tight glass syringe which will be connected to the implant tubing via the three-way valve.

After soil gas sample collection, the probe tubing will be removed and surface cover will be restored at each boring location to match surrounding areas.

Task 4 Soil Gas Sample Analyses

The 32 soil gas samples, together with the two purge test samples, three duplicate samples and QA/QC blanks, will each be analyzed onsite for VOCs using EPA Method 8260B by the state-certified mobile laboratory.

Task 5 HHRA

Converse will conduct a screening-level HHRA to evaluate the potential human health effects from the intrusion of VOC vapors from Site soil into future structures on the Site. The key components of the HHRA process are the Conceptual Site Model, exposure risk, toxicity assessment and risk characterization. The HHRA will contain the following:

- Identification of chemical of concern, as well as toxicity data, chemical characteristics and exposure limits for VOCs detected in soil gas samples; and
- Evaluation of the carcinogenic and non-carcinogenic human health effects from potential intrusion of VOC vapors in Site soil into future structures on the Site.

The Risk and Hazard Index (HI) from potential migration of soil vapors to indoor air will be estimated using the EPA Johnson-Ettinger Advanced Soil Gas Screening Model (J&E Model), modified to incorporate California toxicity criteria. The J&E Model is used to estimate potential migration of subsurface vapors into indoor air and accounts for both the diffusion of chemicals through the subsurface, as well as advection due to pressure differentials between the soil and buildings.

Task 6 Soil Vapor Survey Report Preparation

The results of the Soil Vapor Survey will be presented in a *Soil Vapor Survey Report*. Included in the report will be a summary of the fieldwork and methodologies, as well as a discussion and summary of the soil gas sample analytical results and the HHRA. Converse will also present conclusions and recommendations for further assessment and/or remedial activities, if any, including recommended vapor intrusion control measures, if necessary, to mitigate exposure from intrusion of VOC vapors into future structures on the Site. Maps, summary tables of sample analytical results, and laboratory analytical reports with chain of custody documentation will be provided in the report. An electronic PDF copy of the report will be provided.

Task 7 Project Management

Converse will oversee and manage its subcontractors and will keep the City apprised of the project status and soil vapor survey results.

Schedule

Converse has prepared this Work Plan for submittal to the SARWQCB within one week after receipt of a Purchase Order from the City. The fieldwork schedule is dependant on the timing of the Work Plan approval by the SARWQCB and the availabilities of the laboratory and Geoprobe subcontractor, but the laboratory and subcontractor likely can be scheduled within five to ten business days after SARWQCB approval of the Work Plan. The fieldwork will take approximately two days, including two field days for the onsite mobile laboratory. The draft *Soil Vapor Survey Report* will be completed within two to three weeks after receipt of the final laboratory report. The total project time is expected to take approximately four weeks after SARWQCB Work Plan approval.

Closure

This Work Plan has been prepared for the exclusive use of the City of Riverside and SARWQCB in accordance with the terms and conditions under which these services were

provided. Any reliance on this Work Plan by third parties shall be at third party's sole risk. Our services have been performed in accordance with applicable state and local ordinances, and generally accepted practices in the geosciences. No other warranty, either expressed or implied, is made.

If you have questions regarding this Work Plan, then please call Duncan Walker (909) 796-0544 or Norman Eke at (626) 930-1260.

CONVERSE CONSULTANTS

Duncan Walker, PG
Senior Geologist

Norman S. Eke
Managing Officer

Encl: *Boring Location Map*

Dist: Addressee (PDF via email)
City of Riverside (PDF w/enclosure via email)

DW/NSE

0 ft. 50 ft. 100 ft. 200 ft.

Map distances are approximate

Legend

- Approximate Site boundary
- Approximate boring location

Boring Location Map

Client: City of Riverside, Public Utilities - Plaza Substation
Eastern Portions of APNs 225-052-005, -008, -009, -010, -019 and -021, Riverside, CA

Project No:
13-16-157-01

Converse Consultants

FIGURE
1

SOIL GAS SAMPLE LABORATORY REPORT
AND
CHAIN OF CUSTODY DOCUMENTATION

JONES ENVIRONMENTAL, INC.
P.O. BOX 5387 | FULLERTON, CA 92838
(714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive Redlands, CA 92374	**JEL Ref. No.:** **Client Ref. No.:**	D-0589 13-16-157-01
Attn:	Duncan Walker	**Date Sampled:** **Date Received:**	7/30/2013 7/30/2013
Project Name:	City of Riverside – Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia Riverside, CA	**Physical State:**	Soil Gas

ANALYSES REQUESTED

1. EPA 8260B - Volatile Organics by GC/MS + Oxygenates

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers. Tubing placed in the ground for soil gas sampling was purged three different times as recommended by DTSC/RWQCB regulations. This purge test determined how many purges of the soil gas tubing were needed throughout the project. One, three and ten purge volumes were analyzed to make this determination.

A tracer gas mixture of n-propanol and n-pentane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-propanol or n-pentane was found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 3 purge volumes were used since this purging level gave the highest results for the compound(s) of greatest interest.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for some length of time. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity.

All samples were injected within 30 minutes of sampling.

Approval: _____

Steve Jones, Ph.D.
Laboratory Manager

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive	**JEL Ref. No.:**	D-0589
	Redlands, CA 92374	**Client Ref. No.:**	13-16-157-01
Attn:	Duncan Walker	**Date Sampled:**	7/30/2013
		Date Received:	7/30/2013
Project:	City of Riverside - Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia	**Physical State:**	Soil Gas
	Riverside, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV1-15' 1P**	**SV1-15' 3P**	**SV1-15' 10P**	**SV1-5'**	**SV4-15'**		
JEL ID:	**D-0589-01**	**D-0589-02**	**D-0589-03**	**D-0589-04**	**D-0589-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.020	µg/L
Bromoform	ND	ND	ND	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Chloroform	ND	ND	ND	ND	ND	0.020	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV1-15' 1P**	**SV1-15' 3P**	**SV1-15' 10P**	**SV1-5'**	**SV4-15'**		
JEL ID:	**D-0589-01**	**D-0589-02**	**D-0589-03**	**D-0589-04**	**D-0589-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Freon 113	ND	ND	ND	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.020	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Styrene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Tetrachloroethylene	**14.2**	**14.4**	**13.2**	**3.86**	**4.16**	0.020	µg/L
Toluene	ND	ND	ND	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Trichloroethylene	ND	**0.054**	ND	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.020	µg/L
Xylenes	ND	ND	ND	ND	ND	0.020	µg/L
MTBE	ND	ND	ND	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.100	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.020	µg/L
n-pentane	ND	ND	ND	ND	ND	0.020	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	90%	97%	94%	97%	94%	75 - 125	
Toluene-d_8	95%	91%	93%	99%	91%	75 - 125	
4-Bromofluorobenzene	107%	106%	103%	103%	105%	75 - 125	
	D1-073013-D-0589	D1-073013-D-0589	D1-073013-D-0589	D2-073013-D-0589	D1-073013-D-0589		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive	**JEL Ref. No.:**	D-0589
	Redlands, CA 92374	**Client Ref. No.:**	13-16-157-01
Attn:	Duncan Walker	**Date Sampled:**	7/30/2013
		Date Received:	7/30/2013
Project:	City of Riverside - Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia	**Physical State:**	Soil Gas
	Riverside, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV4-5'**	**SV2-15'**	**SV2-5'**	**SV3-15'**	**SV3-5'**		
JEL ID:	**D-0589-06**	**D-0589-07**	**D-0589-08**	**D-0589-09**	**D-0589-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	**0.043**	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.020	µg/L
Bromoform	ND	ND	ND	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Chloroform	ND	ND	ND	ND	ND	0.020	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV4-5'**	**SV2-15'**	**SV2-5'**	**SV3-15'**	**SV3-5'**		
JEL ID:	**D-0589-06**	**D-0589-07**	**D-0589-08**	**D-0589-09**	**D-0589-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Freon 113	ND	ND	ND	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.020	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Styrene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Tetrachloroethylene	**0.418**	**4.76**	**0.349**	**11.0**	**8.78**	0.020	µg/L
Toluene	**0.186**	ND	**0.276**	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	ND	**0.050**	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.020	µg/L
Xylenes	**0.112**	ND	**0.158**	ND	ND	0.020	µg/L
MTBE	ND	ND	ND	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.100	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.020	µg/L
n-pentane	ND	ND	ND	ND	ND	0.020	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	102%	95%	95%	96%	100%	75 - 125	
Toluene-d_8	99%	92%	101%	93%	98%	75 - 125	
4-Bromofluorobenzene	101%	105%	103%	106%	102%	75 - 125	
	D2-073013-D-0589	D1-073013-D-0589	D2-073013-D-0589	D1-073013-D-0589	D2-073013-D-0589		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive	**JEL Ref. No.:**	D-0589
	Redlands, CA 92374	**Client Ref. No.:**	13-16-157-01
Attn:	Duncan Walker	**Date Sampled:**	7/30/2013
		Date Received:	7/30/2013
Project:	City of Riverside - Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia	**Physical State:**	Soil Gas
	Riverside, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV5-15'**	**SV5-5'**	**SV6-15'**	**SV6-5'**	**SV7-15'**		
JEL ID:	**D-0589-11**	**D-0589-12**	**D-0589-13**	**D-0589-14**	**D-0589-15**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.020	µg/L
Bromoform	ND	ND	ND	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Chloroform	ND	ND	ND	ND	ND	0.020	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV5-15'**	**SV5-5'**	**SV6-15'**	**SV6-5'**	**SV7-15'**		
JEL ID:	**D-0589-11**	**D-0589-12**	**D-0589-13**	**D-0589-14**	**D-0589-15**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Freon 113	ND	ND	ND	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.020	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Styrene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Tetrachloroethylene	**1.26**	**0.024**	**5.73**	**5.36**	**2.15**	0.020	µg/L
Toluene	**0.126**	**0.192**	ND	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.020	µg/L
Xylenes	ND	ND	ND	ND	ND	0.020	µg/L
MTBE	ND	ND	ND	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.100	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.020	µg/L
n-pentane	ND	ND	ND	ND	ND	0.020	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	96%	100%	96%	91%	95%	75 - 125	
Toluene-d_8	92%	100%	93%	95%	94%	75 - 125	
4-Bromofluorobenzene	105%	102%	106%	103%	101%	75 - 125	
	D1-073013-D-0589	D2-073013-D-0589	D1-073013-D-0589	D2-073013-D-0589	D1-073013-D-0589		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive	**JEL Ref. No.:**	D-0589
	Redlands, CA 92374	**Client Ref. No.:**	13-16-157-01
Attn:	Duncan Walker	**Date Sampled:**	7/30/2013
		Date Received:	7/30/2013
Project:	City of Riverside - Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia	**Physical State:**	Soil Gas
	Riverside, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV7-5'**	**SV8-15'**	**SV8-5'**	**SV9-15'**	**SV9-15' DUP**		
JEL ID:	**D-0589-16**	**D-0589-17**	**D-0589-18**	**D-0589-19**	**D-0589-20**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.020	µg/L
Bromoform	ND	ND	ND	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Chloroform	ND	ND	ND	ND	ND	0.020	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	SV7-5'	SV8-15'	SV8-5'	SV9-15'	SV9-15' DUP		
JEL ID:	**D-0589-16**	**D-0589-17**	**D-0589-18**	**D-0589-19**	**D-0589-20**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Freon 113	ND	ND	ND	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.020	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Styrene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Tetrachloroethylene	**2.08**	**0.503**	**0.082**	**3.01**	**2.92**	0.020	µg/L
Toluene	ND	ND	ND	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.020	µg/L
Xylenes	ND	ND	ND	ND	ND	0.020	µg/L
MTBE	ND	ND	ND	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.100	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.020	µg/L
n-pentane	ND	ND	ND	ND	ND	0.020	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	98%	96%	98%	96%	94%	75 - 125	
Toluene-d_8	99%	93%	98%	92%	93%	75 - 125	
4-Bromofluorobenzene	104%	106%	98%	108%	106%	75 - 125	
	D2-073013-D-0589	D1-073013-D-0589	D2-073013-D-0589	D1-073013-D-0589	D1-073013-D-0589		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive	**JEL Ref. No.:**	D-0589
	Redlands, CA 92374	**Client Ref. No.:**	13-16-157-01
Attn:	Duncan Walker	**Date Sampled:**	7/30/2013
		Date Received:	7/30/2013
Project:	City of Riverside - Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia	**Physical State:**	Soil Gas
	Riverside, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV9-5'**	**SV9-5' DUP**	**SV10-15'**	**SV10-5'**	**SV11-15'**		
JEL ID:	**D-0589-21**	**D-0589-22**	**D-0589-23**	**D-0589-24**	**D-0589-25**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.020	µg/L
Bromoform	ND	ND	ND	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Chloroform	ND	ND	ND	ND	ND	0.020	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	SV9-5'	SV9-5' DUP	SV10-15'	SV10-5'	SV11-15'		
JEL ID:	D-0589-21	D-0589-22	D-0589-23	D-0589-24	D-0589-25	Practical Quantitation Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Freon 113	ND	ND	ND	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.020	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Styrene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Tetrachloroethylene	**1.49**	**1.45**	**0.964**	**0.853**	**0.324**	0.020	µg/L
Toluene	ND	ND	**0.031**	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.020	µg/L
Xylenes	ND	ND	ND	ND	ND	0.020	µg/L
MTBE	ND	ND	ND	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.100	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.020	µg/L
n-pentane	ND	ND	ND	ND	ND	0.020	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	96%	93%	95%	101%	98%	75 - 125	
Toluene-d_8	101%	99%	93%	97%	90%	75 - 125	
4-Bromofluorobenzene	101%	101%	108%	99%	105%	75 - 125	
	D2-073013-D-0589	D2-073013-D-0589	D1-073013-D-0589	D2-073013-D-0589	D1-073013-D-0589		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive	**JEL Ref. No.:**	D-0589
	Redlands, CA 92374	**Client Ref. No.:**	13-16-157-01
Attn:	Duncan Walker	**Date Sampled:**	7/30/2013
		Date Received:	7/30/2013
Project:	City of Riverside - Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia	**Physical State:**	Soil Gas
	Riverside, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV11-5'**	**SV12-15'**	**SV12-5'**	**SV13-15'**	**SV13-5'**		
JEL ID:	**D-0589-26**	**D-0589-27**	**D-0589-28**	**D-0589-29**	**D-0589-30**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.020	µg/L
Bromoform	ND	ND	ND	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Chloroform	ND	ND	ND	ND	ND	0.020	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV11-5'**	**SV12-15'**	**SV12-5'**	**SV13-15'**	**SV13-5'**		
JEL ID:	**D-0589-26**	**D-0589-27**	**D-0589-28**	**D-0589-29**	**D-0589-30**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Freon 113	ND	ND	ND	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.020	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Styrene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Tetrachloroethylene	ND	**0.609**	**0.886**	**0.466**	**0.086**	0.020	µg/L
Toluene	ND	**0.086**	ND	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.020	µg/L
Xylenes	ND	ND	ND	ND	ND	0.020	µg/L
MTBE	ND	ND	ND	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.100	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.020	µg/L
n-pentane	ND	ND	ND	ND	ND	0.020	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	100%	96%	97%	93%	99%	75 - 125	
Toluene-d_8	101%	92%	96%	92%	96%	75 - 125	
4-Bromofluorobenzene	101%	106%	101%	107%	102%	75 - 125	
	D2-073013-D-0589	D1-073013-D-0589	D2-073013-D-0589	D1-073013-D-0589	D2-073013-D-0589		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive Redlands, CA 92374	**JEL Ref. No.:** **Client Ref. No.:**	D-0589 13-16-157-01
Attn:	Duncan Walker	**Date Sampled:** **Date Received:**	7/30/2013 7/30/2013
Project:	City of Riverside - Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia Riverside, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV14-15'**	**SV14-5'**	**SV15-15'**	**SV15-5'**	**SV16-15'**		
JEL ID:	**D-0589-31**	**D-0589-32**	**D-0589-33**	**D-0589-34**	**D-0589-35**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.020	µg/L
Bromoform	ND	ND	ND	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Chloroform	ND	ND	ND	ND	ND	0.020	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV14-15'**	**SV14-5'**	**SV15-15'**	**SV15-5'**	**SV16-15'**		
JEL ID:	**D-0589-31**	**D-0589-32**	**D-0589-33**	**D-0589-34**	**D-0589-35**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Freon 113	ND	ND	ND	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.020	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Styrene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Tetrachloroethylene	**0.146**	ND	**0.418**	**0.057**	**0.266**	0.020	µg/L
Toluene	ND	ND	ND	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.020	µg/L
Xylenes	ND	ND	ND	ND	ND	0.020	µg/L
MTBE	ND	ND	ND	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.100	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.020	µg/L
n-pentane	ND	ND	ND	ND	ND	0.020	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	94%	98%	96%	96%	93%	75 - 125	
Toluene-d_8	93%	98%	93%	98%	92%	75 - 125	
4-Bromofluorobenzene	106%	103%	107%	97%	104%	75 - 125	
	D1-073013-D-0589	D2-073013-D-0589	D1-073013-D-0589	D2-073013-D-0589	D1-073013-D-0589		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive	**JEL Ref. No.:**	D-0589
	Redlands, CA 92374	**Client Ref. No.:**	13-16-157-01
Attn:	Duncan Walker	**Date Sampled:**	7/30/2013
		Date Received:	7/30/2013
Project:	City of Riverside - Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia	**Physical State:**	Soil Gas
	Riverside, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV16-5'**	**AMBIENT AIR**		
JEL ID:	**D-0589-36**	**D-0589-37**	**Practical Quantitation Limit**	**Units**
Analytes:				
Benzene	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	0.020	µg/L
Bromoform	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	0.020	µg/L
Chloroethane	ND	ND	0.020	µg/L
Chloroform	ND	ND	0.020	µg/L
Chloromethane	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV16-5'**	**AMBIENT AIR**		
JEL ID:	**D-0589-36**	**D-0589-37**	**Practical Quantitation Limit**	**Units**
Analytes:				
cis-1,3-Dichloropropene	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	0.020	µg/L
Freon 113	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	0.020	µg/L
Naphthalene	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	0.020	µg/L
Styrene	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	0.020	µg/L
Tetrachloroethylene	**0.074**	ND	0.020	µg/L
Toluene	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	0.020	µg/L
Xylenes	ND	ND	0.020	µg/L
MTBE	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	0.100	µg/L
TIC:				
n-propanol	ND	ND	0.020	µg/L
n-pentane	ND	ND	0.020	µg/L
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	93%	94%	75 - 125	
Toluene-d_8	101%	95%	75 - 125	
4-Bromofluorobenzene	60%	107%	75 - 125	
	D2-073013-D-0589	D1-073013-D-0589		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive	**JEL Ref. No.:**	D-0589
	Redlands, CA 92374	**Client Ref. No.:**	13-16-157-01
Attn:	Duncan Walker	**Date Sampled:**	7/30/2013
		Date Received:	7/30/2013
Project:	City of Riverside - Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia	**Physical State:**	Soil Gas
	Riverside, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**METHOD BLANK**	**METHOD BLANK**	**SAMPLING BLANK**		
JEL ID:	**D-0589-38**	**D-0589-42**	**D-0589-43**	**Practical Quantitation Limit**	**Units**
Analytes:					
Benzene	ND	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	ND	0.020	µg/L
Bromoform	ND	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	ND	0.020	µg/L
Chloroethane	ND	ND	ND	0.020	µg/L
Chloroform	ND	ND	ND	0.020	µg/L
Chloromethane	ND	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	METHOD BLANK	METHOD BLANK	SAMPLING BLANK		
JEL ID:	D-0589-38	D-0589-42	D-0589-43	Practical Quantitation Limit	Units
Analytes:					
cis-1,3-Dichloropropene	ND	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	ND	0.020	µg/L
Freon 113	ND	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	ND	0.020	µg/L
Naphthalene	ND	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	ND	0.020	µg/L
Styrene	ND	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	0.020	µg/L
Tetrachloroethylene	ND	ND	ND	0.020	µg/L
Toluene	ND	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	ND	0.020	µg/L
Xylenes	ND	ND	ND	0.020	µg/L
MTBE	ND	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	ND	0.100	µg/L
TIC:					
n-propanol	ND	ND	ND	0.020	µg/L
n-pentane	ND	ND	ND	0.020	µg/L
Dilution Factor	1	1	1		
Surrogate Recoveries:				**QC Limits**	
Dibromofluoromethane	92%	93%	91%	75 - 125	
Toluene-d_8	93%	117%	102%	75 - 125	
4-Bromofluorobenzene	100%	102%	97%	75 - 125	
	D1-073013-D-0589	D2-073013-D-0589	D2-073013-D-0589		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive	**JEL Ref. No.:**	D-0589
	Redlands, CA 92374	**Client Ref. No.:**	13-16-157-01
Attn:	Duncan Walker	**Date Sampled:**	7/30/2013
		Date Received:	7/30/2013
Project:	City of Riverside - Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia	**Physical State:**	Soil Gas
	Riverside, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample Spiked: Ambient Air **GC#:** D1-073013-D-0589

JEL ID:	**D-0589-40**	**D-0589-41**			**D-0589-39**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	94%	107%	14%	70-130	88%	70-130
Benzene	95%	96%	0.5%	70-130	94%	70-130
Trichloroethylene	88%	90%	2.7%	70-130	92%	70-130
Toluene	87%	89%	2.4%	70-130	91%	70-130
Chlorobenzene	101%	104%	3.5%	70-130	110%	70-130
Surrogate Recovery:						
Dibromofluoromethane	92%	95%		75-125	97%	75-125
Toluene-d_8	91%	113%		75-125	92%	75-125
4-Bromofluorobenzene	101%	103%		75-125	95%	75-125

Method Blank = Not Detected

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Converse Consultants, Inc.	**Report date:**	7/30/2013
Client Address:	10391 Corporate Drive Redlands, CA 92374	**JEL Ref. No.:** **Client Ref. No.:**	D-0589 13-16-157-01
Attn:	Duncan Walker	**Date Sampled:** **Date Received:**	7/30/2013 7/30/2013
Project:	City of Riverside - Public Utilities	**Date Analyzed:**	7/30/2013
Project Address:	Elizabeth & Magnolia Riverside, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample Spiked: Ambient Air **GC#:** B2-073013-D-0589

JEL ID:	**D-0589-45**	**D-0589-46**			**D-0589-44**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	87%	88%	1.0%	70-130	75%	70-130
Benzene	94%	92%	2.4%	70-130	89%	70-130
Trichloroethylene	90%	89%	0.5%	70-130	92%	70-130
Toluene	86%	87%	2.1%	70-130	97%	70-130
Chlorobenzene	92%	94%	1.7%	70-130	104%	70-130
Surrogate Recovery:						
Dibromofluoromethane	91%	95%		75-125	92%	75-125
Toluene-d_8	98%	98%		75-125	101%	75-125
4-Bromofluorobenzene	105%	107%		75-125	99%	75-125

Method Blank = Not Detected

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

JONES ENVIRONMENTAL, INC.
P.O. Box 5387
Fullerton, CA 92838
(714) 449-9937
Fax (714) 449-9685
www.jonesenvironmentallab.com

Chain-of-Custody Record

Client: Converse Consultants
Date: 7/30/13
Project Name: City of Riverside-Plaza Substation
Client Project #: 13-16-157.01
Project Address: Elizabeth & Magnolia
Riverside, CA
Project Contact: Duncan Walker

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Number: ☐ 1P ☒ 3P ☐ 7P ☐ 10P
Purge Rate: 200 cc/min
Shut in Test ☑ / N
Tracer:
- ☐ ~~n-propanol~~
- ☐ ~~n-pentane~~
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project #: D-0589
Page 1 of 4
Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ ~~no~~
Sealed ☐ ~~yes~~ ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)		Analysis Requested: DRA mod (Gas)			Magnehelic Vacuum (In/H_2O)	Number of Containers	Remarks/Special Instructions
SV1-15' 1P	1	674	7/30/13	09:47		D-0589-01	SG	X				<2	1	Glass Gas Tight Syringe
SV1-15' 3P	3	2023	7/30/13	09:59		D-0589-02	SG	X				<2	1	
SV1-15' 10P	10	6743	7/30/13	10:21		D-0589-03	SG	X				<2	1	
~~SV4-15~~ SV1-5'	3	1859	7/30/13	11:08		D-0589-04	SG	X				<2	1	
SV4-15'	3	2023	7/30/13	11:17		D-0589-05	SG	X				<2	1	
SV4-5'	3	1859	7/30/13	11:30		D-0589-06	SG	X				<2	1	
SV2-15'	3	2023	7/30/13	11:46		D-0589-07	SG	X				<2	1	
SV2-5'	3	1859	7/30/13	12:13		D-0589-08	SG	X				<2	1	
SV3-15'	3	2023	7/30/13	12:28		D-0589-09	SG	X				<2	1	
SV3-5'	3	1859	7/30/13	12:30		D-0589-10	SG	X				4	1	

❶ Relinquished by (signature)	Date	❷ Received by (signature)	Date 7/30/13	**Total Number of Containers**
Company	Time	Company JRL	Time 17:45	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date	
Company	Time	Company	Time	

JONES ENVIRONMENTAL, INC.
P.O. Box 5387
Fullerton, CA 92838
(714) 449-9937
Fax (714) 449-9685
www.jonesenvironmentallab.com

Chain-of-Custody Record

Client: CONVERSE CONSULTANTS
Date: 7/30/13
Project Name: CITY OF RIVERSIDE - PLAZA SUBSTATION
Client Project #: 13-16-157-01
Project Address: ELIZABETH & MAGNOLIA, RIVERSIDE, CA
Project Contact: DUNCAN WALKER

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☑ Mobile Lab

SOIL GAS
Purge Number: ☐ 1P ☑ 3P ☐ 7P ☐ 10P
Purge Rate: 200 cc/min
Shut in Test ✓ / N
Tracer:
- ☑ n-propanol
- ☑ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project #: D-0589
Page 2 of 4

Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☑ no
Sealed ☐ yes ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Analysis Requested: TVPH 8260 (Full)	Analysis Requested: Magnehelic Vacuum ($in H_2O$)	Analysis Requested: Number of Containers	Remarks/Special Instructions
SV5-15'	3	2023	7/30/13	12:35		D-0589-11	SG	X	6	1	GLASSGAS TEDLAR SYRINGE
SV5-5'	3	1859	7/30/13	12:49		D-0589-12	SG	X	<2	1	
SV6-15'	3	2023	7/30/13	12:55		D-0589-13	SG	X	<2	1	
SV6-5'	3	1859	7/30/13	13:07		D-0589-14	SG	X	<2	1	
SV7-15'	3	2023	7/30/13	13:12		D-0589-15	SG	X	<2	1	
SV7-5'	3	1859	7/30/13	13:32		D-0589-16	SG	X	<2	1	
SV8-15'	3	2023	7/30/13	13:38		D-0589-17	SG	X	<2	1	
SV8-5'	3	1859	7/30/13	13:52		D-0589-18	SG	X	<2	1	
SV9-15'	3	2023	7/30/13	13:56		D-0589-19	SG	X	<2	1	
SV9-15' DUP	3	2023	7/30/13	13:56		D-0589-20	SG	X	<2	1	

❶ Relinquished by (signature)	Date	❷ Received by (signature)	Date 7/30/13		**Total Number of Containers**
Company	Time	Company JEL	Time 17:45		The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date		
Company	Time	Company	Time		

JONES ENVIRONMENTAL
TESTING LABORATORIES

P.O. Box 5387
Fullerton, CA 92838
(714) 449-9937
Fax (714) 449-9685

Chain-of-Custody Record

Client: Converse Consultants
Date: 7/30/13
Project Name: City of Riverside - Plata Substation
Client Project #: 13-16-157-01
Project Address: Elizabeth & Magnolia, Riverside, CA
Project Contact: Duncan Walker

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Vol: ☐ 1P ☑ 3P ☐ 7P
Tracer: ~~N~~ Isopropanol
Purge Rate: 200 cc/min

JEL Project #: D-0589
Page 3 of 4

Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☑ ~~no~~
Sealed ~~☐ yes~~ ☐ no

Analysis Requested: TPH-8260 (Mod.); Magnetic Mechanic (CRM Attached)

Sample ID	Purge Volume	Discussion	Date	Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	TPH-8260 (Mod.)					Magnetic Mechanic (CRM Attached)	Number of Containers	Remarks/Special Instructions
SV9-5'	3	1859	7/30/13	14:15	D-0589-21	SG	X					<2	1	GlassGas Tight Syringe
SV9-5' Dup	3	1859	7/30/13	14:15	D-0589-22	SG	X					<2	1	
SV10-5'	3	2023	7/30/13	15:10	D-0589-23	SG	X					<2	1	
SV10-5'	3	1859	7/30/13	15:21	D-0589-24	SG	X					<2	1	
SV11-5'	3	2023	7/30/13	15:30	D-0589-25	SG	X					4	1	
SV11-5'	3	1859	7/30/13	15:37	D-0589-26	SG	X					<2	1	
SV12-5'	3	2023	7/30/13	15:48	D-0589-27	SG	X					4	1	
SV12-5'	3	1859	7/30/13	15:59	D-0589-28	SG	X					<2	1	
SV13-5'	3	2023	7/30/13	16:12	D-0589-29	SG	X					<2	1	
SV13-5'	3	1859	7/30/13	16:23	D-0589-30	SG	X					<2	1	

❶ Relinquished by (signature)	Date	❷ Received by (signature)	Date 7/30/13		**Total Number of Containers**
Company	Time	Company JEL	Time 17:45	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.	
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date		
Company	Time	Company	Time		

JONES ENVIRONMENTAL
TESTING LABORATORIES

P.O. Box 5387
Fullerton, CA 92838
(714) 449-9937
Fax (714) 449-9685

Chain-of-Custody Record

Client: Converse Consultants
Date: 7/30/13
Project Name: City of Riverside - Platta Substation
Client Project #: 13-16-157-01
Project Address: Elizabeth & Magnolia, Riverside, CA
Project Contact: Duncan Walker

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Vol: ☐ 1P ☑ 3P ☐ 7P
Tracer: ~~Propane~~ / Propane
Purge Rate: 200 cc/min

JEL Project #: D-0589
Page 4 of 4
Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☑ no
Sealed ~~☐ yes~~ ☐ no

Sample ID	Purge Volume	Discussion	~~Date~~	Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Analysis Requested: BTEX (EPA 8260)	Analysis Requested: Magnesium Acetate	Number of Containers	Remarks/Special Instructions
SV14-15'	3	2023 7/30/13	16:41		D-0589-31	SG	X		<2	1	Glass Gas Tight Syringe
SV14-5'	3	1859 7/30/13	16:49		D-0589-32	SG	X		<2	1	
SV15-15'	3	2023 7/30/13	17:02		D-0589-33	SG	X		<2	1	
SV15-5'	3	1859 7/30/13	17:07		D-0589-34	SG	X		4	1	
SV16-15'	3	2023 7/30/13	17:19		D-0589-35	SG	X		<2	1	
SV16-5'	3	1859 7/30/13	17:29		D-0589-36	SG	X		4	1	
Ambient Air	3	300 7/30/13	14:47		D-0589-37	SG	X		<2	1	

❶ Relinquished by (signature)	Date	❷ Received by (signature) JEL	Date 7/30/13		**Total Number of Containers**
Company	Time	Company	Time 17:45	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.	
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date		
Company	Time	Company	Time		

HUMAN HEALTH RISK ASSESSMENT SUPPORTING DATA

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

From File	K:\41-JRZ\Office 16-projects\City of Riverside\ProUCL Worksheets\PCE worksheet.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

PCE 5'

General Statistics

Number of Valid Data	17	Number of Detected Data	14
Number of Distinct Detected Data	14	Number of Non-Detect Data	3
		Percent Non-Detects	17.65%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.024	Minimum Detected	-3.73
Maximum Detected	8.78	Maximum Detected	2.172
Mean of Detected	1.841	Mean of Detected	-0.504
SD of Detected	2.538	SD of Detected	1.818
Minimum Non-Detect	0.02	Minimum Non-Detect	-3.912
Maximum Non-Detect	0.02	Maximum Non-Detect	-3.912

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.738	Shapiro Wilk Test Statistic	0.954
5% Shapiro Wilk Critical Value	0.874	5% Shapiro Wilk Critical Value	0.874
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	1.518	Mean	-1.227
SD	2.398	SD	2.298
95% DL/2 (t) UCL	2.533	95% H-Stat (DL/2) UCL	70.42
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	1.211	Mean in Log Scale	-1.256
SD	2.67	SD in Log Scale	2.358
95% MLE (t) UCL	2.341	Mean in Original Scale	1.518
95% MLE (Tiku) UCL	2.315	SD in Original Scale	2.398
		95% t UCL	2.533
		95% Percentile Bootstrap UCL	2.54
		95% BCA Bootstrap UCL	2.806

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.488	Data appear Gamma Distributed at 5% Significance Level	
Theta Star	3.773		
nu star	13.66		
A-D Test Statistic	0.238	Nonparametric Statistics	
5% A-D Critical Value	0.788	Kaplan-Meier (KM) Method	

K-S Test Statistic	0.788	Mean	1.52
5% K-S Critical Value	0.241	SD	2.325
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	0.585
		95% KM (t) UCL	2.542
Assuming Gamma Distribution		95% KM (z) UCL	2.483
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	2.531
Minimum	1.000E-12	95% KM (bootstrap t) UCL	3.603
Maximum	8.78	95% KM (BCA) UCL	2.559
Mean	1.516	95% KM (Percentile Bootstrap) UCL	2.485
Median	0.418	95% KM (Chebyshev) UCL	4.071
SD	2.399	97.5% KM (Chebyshev) UCL	5.175
k star	0.152	99% KM (Chebyshev) UCL	7.343
Theta star	9.999		
Nu star	5.156	Potential UCLs to Use	
AppChi2	1.225	95% KM (Chebyshev) UCL	4.071
95% Gamma Approximate UCL	6.382		
95% Adjusted Gamma UCL	7.529		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

DATA ENTRY SHEET

SG-ADV Version 3.1; 02/04

Reset to Defaults

Commercial @ 5-feet
Maximum concentration

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical	ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	
127184	8.78E+03			Tetrachloroethylene					CA

MORE

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	24	152.4			L		

MORE

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
L	1.59	0.399	0.148	L	1.59	0.399	0.148	SI	1.35	0.489	0.167

MORE

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	1000	1000	304	0.1	1	5

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	25	250

INCREMENTAL RISK CALCULATIONS:

Incremental Risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard Quotient from vapor intrusion to indoor air, carcinogen (unitless)
3.70E-06	**4.18E-02**

END

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV Version 3.1; 02/04

Reset to Defaults

Commercial @ 5-feet
maximum concentration (w/18" of engineered fill)

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical	ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	
127184	8.78E+03			Tetrachloroethylene					CA

MORE

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	24	45.72	106.68		L		

MORE

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
L	1.8	0.3	0.15	L	1.59	0.399	0.148	SI	1.35	0.489	0.167

MORE

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	1000	1000	304	0.1	1	5

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	25	250

INCREMENTAL RISK CALCULATIONS:

Incremental Risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard Quotient from vapor intrusion to indoor air, carcinogen (unitless)
2.76E-06	**3.12E-02**

END

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV Version 3.1; 02/04

Reset to Defaults

Commercial @ 5-feet
95 UCL concentration

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical	ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	
127184	4.07E+03			Tetrachloroethylene					CA

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Totals must add up to value of Ls (cell F24) Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
15	152.4	24	152.4			L		

MORE ↓

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
L	1.59	0.399	0.148	L	1.59	0.399	0.148	SI	1.35	0.489	0.167

MORE ↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	1000	1000	304	0.1	1	5

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	25	250

INCREMENTAL RISK CALCULATIONS:

Incremental Risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard Quotient from vapor intrusion to indoor air, carcinogen (unitless)
1.71E-06	**1.94E-02**

END

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

DATA ENTRY SHEET

SG-ADV Version 3.1; 02/04

Reset to Defaults

Commercial @ 5-feet
95% UCL concentration (w/18" of engineered fill)

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical	ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	
127184	4.07E+03			Tetrachloroethylene					CA

MORE

ENTER Depth below grade to bottom of enclosed space floor, L_F (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Thickness of soil stratum A, h_A (cm)	ENTER Thickness of soil stratum B, (Enter value or 0) h_B (cm)	ENTER Thickness of soil stratum C, (Enter value or 0) h_C (cm)	ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
			Totals must add up to value of Ls (cell F24)					
15	152.4	24	45.72	106.68		L		

MORE

ENTER Stratum A SCS soil type (Lookup Soil Parameters)	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type (Lookup Soil Parameters)	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type (Lookup Soil Parameters)	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
L	1.8	0.3	0.15	L	1.59	0.399	0.148	SI	1.35	0.489	0.167

MORE

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($g/cm\text{-}s^2$)	ENTER Enclosed space floor length, L_B (cm)	ENTER Enclosed space floor width, W_B (cm)	ENTER Enclosed space height, H_B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	1000	1000	304	0.1	1	5

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	25	250

INCREMENTAL RISK CALCULATIONS:

Incremental Risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard Quotient from vapor intrusion to indoor air, carcinogen (unitless)
1.28E-06	**1.45E-02**

END

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

APPLICATION FOR AUTHORIZATION TO USE

Converse Consultants

Geotechnical Engineering, Environmental & Groundwater Science, Inspection & Testing Services

Application for Authorization to Use

TO: Converse Consultants
10391 Corporate Drive
Redlands, California 92374

Report Title & Date: _____

Project Address: _____

FROM: (Please identify name & address of person/entity applying for permission to use the referenced report.)

_____

_____

_____

Applicant _____ hereby applies for permission to use the referenced report in order to:

_____

_____

_____

Applicant wishes or needs to use the referenced report because:

_____

_____

_____

Applicant also understands and agrees that the referenced document is a copyrighted document and shall remain the sole property of Converse Consultants. Unauthorized use or copying of the report is strictly prohibited without the express written permission of Converse Consultants. *Applicant* understands and agrees that Converse Consultants may withhold such permission at its sole discretion, or grant such permission upon agreement to Terms and Conditions, such as the payment of a re-use fee, amongst others.

Applicant Signature: _____

Applicant Name (print): _____

Title: _____

Date: _____

D-2 "*Vapor Intrusion Mitigation Measures*" Letter

Converse Consultants

Geotechnical Engineering, Environmental and Groundwater Science, Inspection and Testing Services

October 17, 2013

Mr. Kamron Saremi, PE
WRC Engineer
Santa Ana Regional Water Quality Control Board (SARWQCB)
Site Cleanup Section
3737 Main Street, Suite 500
Riverside, CA 92501-3348

Subject: **VAPOR INTRUSION MITIGATION MEASURES**
Proposed Restroom, Existing Plaza Substation
Elizabeth Street
Riverside, California
APN 225-064-003
Converse Project No. 113-16-157-01

Mr. Saremi:

Converse Consultants (Converse) has prepared this letter to describe proposed Vapor Intrusion (VI) Mitigation Measures for a Proposed Restroom on the Existing Plaza Substation Assessors Parcel Number (APN) 225-064-003. You requested design of VI Mitigation Measures for the Proposed Restroom, based on your review of *Soil Vapor Survey Report* (Converse August 22, 2013).

The Proposed Restroom will be located on the existing substation, approximately 150 to 160 feet east of our Site where we did the Soil Vapor Survey. A revised *Boring Location Map* (Figure 3R) is enclosed showing the approximate Proposed Restroom location relative to the Soil Vapor Survey Site.

During our discussions, you approved the following VI Mitigation Measures, the last two of which are depicted on the enclosed *Preliminary Vapor Barrier System* plan:

1. Over-excavation and placement of Engineered Fill to a minimum depth of 2 feet in the Proposed Restroom area, prior to foundations and slab.
2. An impermeable 20-mm high density polyethylene (HDPE) membrane under the Proposed Restroom floor slab underlain by select sand layer extending to the top of the footing;
3. A flue-type vent through the ceiling/roof of the Proposed Restroom and fitted with a external, wind-operated rotary ventilator.

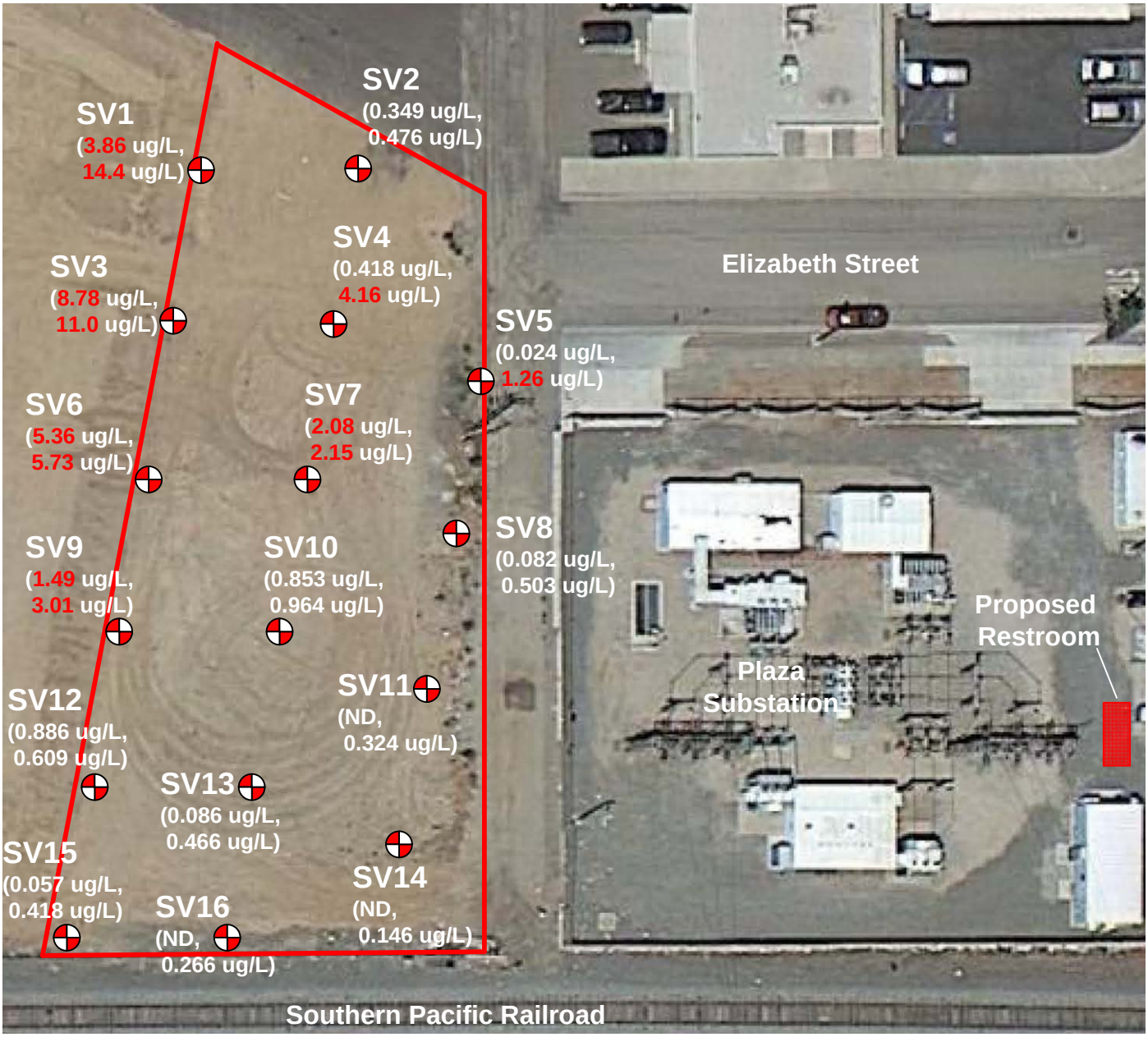
If you have questions regarding this Letter, then please call Duncan Walker (951) 296-8683.

CONVERSE CONSULTANTS

Duncan Walker, PG
Senior Geologist

Encl: *Boring Location Map*
Preliminary Vapor Barrier System

Dist: Addressee (PDF via email)
City of Riverside (PDF w/enclosure via email)



Legend

- Approximate Site boundary
- Approximate boring location

PCE (tetrachlorethylene) concentrations for 5- and 15-foot soil gas samples listed in ug/L (micrograms per liter). Red text for PCE concentrations exceeding California Human Health Soil Screening Level-Industrial Scenario (CHHSL-I) with Engineered Fill (1.6 ug/L). ND = PCE Not Detected.

0 ft. 20 ft. 40 ft. 80 ft.

Map distances are approximate

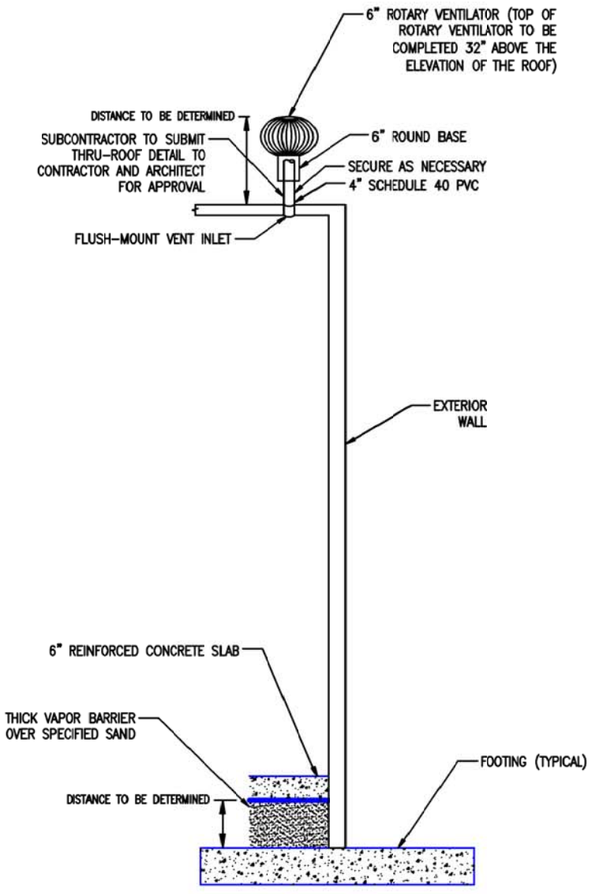
Boring Location Map

Client: City of Riverside, Public Utilities - Plaza Substation
Eastern Portions, APNs 225-052-005, -008, -009, -010, -019 & -021, Riverside, CA

Project No:
13-16-157-01

Converse Consultants

FIGURE
3R



NOTE:
FOOTING AND WALL SHOWN ARE ONLY CONCEPTUAL.

SUBSLAB MEMBRANE AND PASSIVE INTERIOR VENTILATION

REV	DESCRIPTION	DR	CHK	APP	DATE
0	W.O. 1227700 – ISSUED FOR APPROVAL	LE	RP		

PLAZA SUBSTATION
PHYSICAL – RESTROOM SECTION DETAILS
PRELIMINARY VAPOR BARRIER SYSTEM

SCALE: N.T.S.	DRAWN: L. ESPINOZA	DRAWING NO. PLSOP2900-01	WATER | ENERGY | LIFE
DATE: 09-30-13	CHECKED: R. RAMIREZ		CITY OF RIVERSIDE PUBLIC UTILITIES
W.O. NO.: 1227700	APPROVED:	SHEET: 1 OF 1	
		FILE NAME: PLSOP2900-01_R0	

D-3 "*No Further Action Determination for Plaza Substation Expansion*" Letter

October 30, 2013

Mr. Daniel Honeyfield, P.E.
Senior Electrical Engineer
Riverside Public Utilities
3750 University Ave. 3rd Floor
Riverside, CA 92501
dhoneyfield@riverside.gov

NO FURTHER ACTION DETERMINATION FOR PLAZA SUBSTATION EXPANSION, VACANT PROPERTY ON ELIZABETH STREET EAST OF 6186 MAGNOLIA AVENUE, RIVERSIDE, CALIFORNIA

Dear Mr. Honeyfield:

We have reviewed the Soil Vapor Survey report, dated August 22, 2013, and Vapor Mitigation Measures, dated October 17, 2013, which were prepared and submitted by Converse Consultants (Converse) on behalf of the City of Riverside Public Utilities Department. The reports pertain to the Plaza Substation expansion project (Site), which will extend from the existing Substation area westward, comprising approximately 0.4 additional acres of an irregular-shaped parcel, adjacent to a former dry cleaning operation.

A soil vapor survey was conducted at the Site as part of due diligence for the proposed Plaza Substation expansion project. The purpose of the soil vapor survey was to investigate the eastern extent of volatile organic compounds (VOCs) in the subsurface soil adjacent to the former Olympic Dry Cleaners (6186 Magnolia Avenue), which was investigated, with our oversight, and then demolished in 2010. The dry cleaning site investigation included several phases of soil vapor, soil matrix and groundwater sampling and analysis. Only low levels of VOCs were detected in the soil and groundwater. These levels did not appear to pose a threat to the beneficial uses of the groundwater; however, we recommended a screening-level human health risk assessment (HHRA) for soil vapor at the former dry cleaning site, if any structures were to be built there.

Soil Vapor Studies

On July 31, 2013, soil vapor borings were advanced at selected locations on the Plaza Substation Expansion Site, to approximately 15 feet below ground surface (bgs), using Geoprobe®.

The scope of work consisted of the following:

- Advancing 16 soil vapor probe borings (SV1 through SV16);
- Installing two soil vapor probes in each boring (a total of 32 probes);
- Collecting soil gas samples from each probe; and analyzing each of the soil gas samples for VOCs; and
- Conducting a Screening-level HHRA.

A purge volume test was conducted, using 1, 3, and 10 purge volumes from the 15-foot soil vapor probe in SV1, the first boring sampled. Three purge volumes, which had the largest VOC concentrations detected during the purge tests, were used for the vapor samples. The laboratory performed a shut-in test prior to collecting each vapor sample, to ensure that there were no leaks of surface air into the probes during purging and sampling.

The following procedures were used to collect each of the 32 soil vapor samples, two purge test samples and two duplicate samples: A pump and vacuum gauge were connected to the sampling tube from each depth interval via a three-way valve. The sampling train was next purged of three purge volumes, as determined during the purge test, at a flow rate of 100 to 200 milliliters per minute. Each soil gas sample was then collected in a gas-tight glass syringe, which was connected to the implant tubing via a three-way valve.

Soil Gas Sampling Results

Tetrachloroethylene (PCE) concentrations at the site ranged from 0.024 to 14.4 micrograms per liter (µg/l) in 33 of the 36 soil gas samples, including both duplicate samples and both purge test samples. The highest PCE concentrations (3.86 to 14.4 µg/l) were in the eight soil gas samples from three borings (SV1, SV3 and SV6), which were located in the northwestern portion of the Site, along its western boundary and adjacent to the former Olympic Dry Cleaners.

Trichloroethylene (TCE) concentrations were 0.054 and 0.050 µg/l in the 15-foot soil gas samples from borings SV1 and SV3, respectively. These are the same samples that also had the two highest PCE concentrations. Toluene concentrations ranged from 0.031 to 0.276 µg/l in six soil gas samples. Low concentrations of Xylene (0.112 and 0.158 µg/l) were detected in two soil gas samples.

HHRA Findings

The California Office of Environmental Health Hazard Assessment has established health-risk based California Human Health Screening Levels (CHHSLs), to be used when evaluating the concentrations of selected analytes, including VOCs, in soil gas. CHHSLs have been established for Residential and Industrial Scenarios. Industrial CHHSLs are considered the appropriate screening levels for the Site, based on its anticipated future land use. In addition, there are two types of Industrial CHHSLs for soil gas: the higher value is for buildings constructed with engineered fill below sub-slab

gravel, and the lower value is for buildings without engineered fill. Analytical results from the investigation of the Substation property were reviewed and compared with the appropriate CHHSLs.

Results indicate that PCE concentrations (2.08 to 14.4 µg/l) exceeded the two Industrial CHHSL values for PCE (0.60 and 1.6 µg/l) in 13 of the 33 soil gas samples, including both duplicate samples and both purge test samples. All TCE analytical results were less than the upper and lower Industrial CHHSL values for TCE (1.8 and 4.4 µg/l). All toluene analytical results were less than the Industrial CHHSL values for toluene (380 and 890). All xylene analytical results were less than the Industrial CHHSLs for xylenes (880 and 2,100 µg/l).

According to Converse, the estimated carcinogenic risks from vapor intrusion for buildings constructed with and without engineered fill are 2.76×10^{-6} and 3.7×10^{-6}, respectively, based on the Site maximum concentration of PCE in 5-foot samples. The estimated carcinogenic risks from vapor intrusion for buildings constructed with and without engineered fill are 1.28×10^{-6} and 1.71×10^{-6}, respectively, based on the 95 percentile upper confidence limit (95UCL) concentration of PCE in 5-foot samples. All four estimated carcinogenic risks for PCE are within the EPA discretionary range of 1×10^{-6} to 1×10^{-5} and are less than the point of departure for commercial/industrial land use of 1×10^{-5}.

According to Converse, the estimated non-carcinogenic health indices (HIs) from vapor intrusion for buildings constructed with and without engineered fill are 0.0312 and 0.0418, respectively, based on the Site maximum concentration of PCE in 5-foot samples. The estimated non-carcinogenic HIs from vapor intrusion for buildings constructed with and without engineered fill are 0.0145 and 0.0194, respectively, based on the 95UCL concentration of PCE in 5-foot samples. All four non-carcinogenic HI values for vapor intrusion are less than the target HI of 1.

Converse concluded that the lower Industrial CHHSL values are appropriate for the Site in its current undeveloped, vacant condition. The higher Industrial CHHSL values are appropriate for future development, which may include buildings, to be constructed on the Site with an engineered fill blanket.

Mitigation Measures

According to the City of Riverside Public Utilities staff, the Site will house relays and switchgear buildings and will not be staffed. However, a restroom building is proposed to be constructed at a location approximately 160 feet east of the soil vapor survey area at the Site. The proposed restroom location is outside of the perimeter of elevated soil vapor detections at the Site. Nevertheless, in consideration of the results of the soil gas investigation and the HHRA, conservative mitigation measures were proposed, in order to address any potential vapor intrusion into the proposed restroom building. No other structures for human occupancy are proposed at the Site.

The components of the proposed vapor intrusion mitigation measures are as follows:

- An impermeable 20-millimeter high density polyethylene (HDPE) membrane under the proposed restroom floor slab, underlain by a select sand layer extending to the top of the footing;
- A flue-type vent through the ceiling/roof of the proposed restroom, fitted with an external, wind operated rotary ventilator.

Discussion

Based on our review of the soil vapor analytical data and screening-level HHRA for the Site, it does not appear that additional soil investigation or remediation will be necessary at this time. Therefore, on the condition that the information provided to us was accurate and representative of the existing conditions at the Site, no further action is necessary with respect to the low levels of VOCs in the shallow subsurface soil at the Site. In addition, the proposed vapor intrusion mitigation measures for the restroom are acceptable.

Please note that you will receive at least one additional invoice for the current billing period, which will include the costs of our oversight of the final activities at the Site, review of the summary report and preparation of this no further action determination letter.

If you have any questions, please contact Kamron Saremi at (951) 782-4303, or by email at kamron.saremi@waterboards.ca.gov, or you may call Ann Sturdivant, Chief of our Site Cleanup Section, at (951) 782-4904, or send email to ann.sturdivant@waterboards.ca.gov.

Sincerely,

Kurt V. Berchtold
Executive Officer

cc: Mr. Duncan Walker, Converse Consultants
(dwalker@ConverseConsultants.com)

KS:PlazasustaionexpansionapprovalOct30/2013

D-4 Phase I Environmental Site Assessment
(Magnolia Substation)

Phase I Environmental Site Assessment for the Magnolia-Plaza Reliability Project,

City of Riverside, Riverside County, California

Prepared for:
RBF Consulting, a company of
Michael Baker Corporation
9755 Clairemont Mesa Blvd., MS 524
San Diego, CA 92124

Prepared by:
Rincon Consultants
5135 Avenida Encinas, Suite A
Carlsbad, CA 92008

July 18, 2013

rincon

Environmental Scientists Planners Engineers

Phase I Environmental Site Assessment – ASTM E 1527-05
Magnolia-Plaza Reliability Project

Table of Contents

Figures

Tables

Appendices

EXECUTIVE SUMMARY

This report presents the findings of a Phase I Environmental Site Assessment (ESA) for a portion of the property located at 3416 Central Avenue in Riverside, California and identified as assessor's parcel number (APN) 223-150-009 (Figure 1, Vicinity Map). The approximately 0.55-acre subject property is currently in use as an electrical substation for the City of Riverside. It is operated and maintained by the Riverside Public Utilities (RPU). The purpose of this Phase I ESA was to provide information for completion of an environmental Initial Study (IS) as defined under the California Environmental Quality Act (CEQA). The subject property is to be demolished and rough-graded as part of the larger Magnolia-Plaza Reliability Project (MPRP). The MPRP is to convert circuits in the Magnolia neighborhood from 4kV to 12kV infrastructure and upgrade Plaza Substation.

Rincon Consultants performed a reconnaissance of the site on July 1, 2013. The purpose of the reconnaissance was to observe existing site conditions and to obtain information indicating the possible presence of recognized environmental conditions (RECs) in connection with the property. Six large transformers and three circuit-breakers were identified on the subject property associated with the use as an electric substation. The transformers appeared to have old paint on the casings and the circuit-breakers had 'Non-PCB' (polychlorinated biphenyls) stickers on them. Some minor stains were noted on the concrete. Twenty four (24) lead-acid batteries were located inside the one-story structure in use as part of the substation. Two pole-mounted transformers were located adjacent to the east of the subject property. Railroad tracks are located approximately 50 feet east and up-slope of the subject property. The Riverside Water Company Canal separates the subject property from the railroad tracks. A cell phone tower site is located adjacent to and south of the subject property. Two vents (associated with the underground electrical vault) were identified in the northwestern portion of the subject property. The railroad tracks are located within 50 feet (to the northeast, east and southeast) and up-slope of the subject property. While there is a concrete-lined canal separating the tracks from the subject property, overflow from major rain events could potentially transport contaminants from the railroad tracks onto the subject property. Railroad ties were historically treated with creosote, and the track beds were historically treated with herbicides for weed management. Therefore, hydrocarbons, metals, herbicides, and SVOCs (creosote, naphthalene) from the railroad activities are potentially present. A difference in existing subject property topography and the most recent topographic map (1980 Riverside West Quadrangle) in the northwestern portion of the subject property was observed during the site reconnaissance. Therefore, the presence of fill material is likely. While there was no evidence observed during the site reconnaissance to suggest that the fill material was impacted, we have no knowledge of the source of the fill material.

As part of the site reconnaissance, some City of Riverside RPU employees were interviewed, including Mr. Joe Solano, Landscape Supervisor. Mr. Solano of RPU indicated that the RPU applies Roundup weed killer three to four times a year and Oust once a year around the perimeter of the substation. Any weed management that was conducted prior to his employment is unknown. Due to historical herbicide application in the area, it is possible herbicides were applied to the subject property as far back as 1950 when the substation was built.

The subject property is located in an area that is primarily comprised of residential and commercial land uses. Properties in the vicinity of the subject property include Central Avenue Self Storage, Attic Mini Storage, Olivewood Cemetery/ Memorial Park, Private/commercial office space (including Bank of America, Sheffield Homes, United Healthcare, and Chase), and single-family homes.

Environmental Data Resources, Inc. (EDR) was contracted to provide a database search of public lists of sites that generate, store, treat or dispose of hazardous materials or sites for which a release or incident has occurred. The EDR search was conducted for the subject property and included data from surrounding sites within a specified radius of the property. The subject property and adjacent properties were not listed in any of the databases searched by EDR. One property located approximately 100 feet to the east and southeast of the subject property was listed in a few databases, including the leaking underground storage tank (LUST) database. Olivewood Cemetery involved soil sampling and soil removal as part of an underground storage tank (UST) removal. According to the records reviewed, the contamination only involved soil (and not ground water) and the case is closed, therefore the site is considered de minimis.

An EDR orphan site called Riverside Plume was also identified in the California State Water Resources Control Board's (SWRCBs) online GeoTracker database. Rincon contacted the SWRCB to request a file review of the site and Mr. Saremi of the SWRCB provided PDF figures for use in this report. One figure (2005) identified the site as the 'Former FMC Facility' and shows the site located approximately 1.5 miles to the northeast of the subject property. Other figures (1994) depicted the groundwater elevation, direction of groundwater flow, a PCE plume, a TCE plume, and a 1,1-DCE plume. Based on the depth to groundwater of approximately 100 feet below grade, the direction of groundwater flow to the west-southwest, and the chemical of concern (COC) plumes being defined, this site is considered a de minimis condition.

The 2012 Spill Prevention Controls & Countermeasures (SPCC) Plan Section 10.0 detailed the number of transformers and circuit breakers on the subject property as well as their total capacity for insulating oil. The SPCC Plan indicated no known documented spills on the subject property.

The 1990 Remediation Plan for Five Electrical Substations Due to PCB Contamination summarized the investigation and partial remediation of potential PCB contamination at five substations and recommended additional remediation. The subject property had the original transformer units in place until documented leaks were repaired and then eventually the transformers were removed in 1980. The subject property was found to have high levels of PCB contamination on the concrete pads, in the sludgy material under the transformer banks' casings and in the soil. The sludgy material contained up to 62 percent pure PCBs. Preliminary remediation at the subject property consisted of scraping, then washing the sludgy material off of the concrete several times using trichloroethane (TCA) as the cleaning solvent. There was still some PCB-containing sludgy material in the small space between the concrete pads and the metal transformer banks' casings. Ultimately, the report recommended proper removal of the contaminated soil and sealing the transformer bank casings on the bottom to keep additional PCB contamination from leaching out onto the concrete in the future. No documentation was identified that confirmed that this remediation was completed.

Historical sources reviewed as part of the Phase I ESA included building permits, topographic maps, aerial photographs, and city directories. The photos, maps, and city directories reviewed indicate the subject property was vacant in 1901, developed with an orchard on a portion of the subject property in 1931, fully developed with an orchard in 1938, vacant from 1942 to 1948, developed with a single 8 foot by 16 foot structure for the City of Riverside Light Department in 1950, partially developed with the existing substation transformers and the structure in 1953, and fully developed as an electrical substation from 1963 to 2012. Due to the suspected age of the structure and the substation equipment, the presence of lead-based paint (LBP) and asbestos containing material (ACMs) is likely.
Based on the findings of this Phase I ESA, this assessment has revealed evidence of one REC and four potential RECs in connection with the property which are, respectively:

REC

- Known presence of PCB contaminated soil onsite

Potential RECs

- Past use of the subject property as an electrical substation for over 70 years and the potential presence of contaminated soil onsite
- Potential presence of fill onsite
- Nearby presence of railroad tracks
- Application of herbicides for weed management around the perimeter of the subject property.

To evaluate the potential site impact associated with the REC and potential RECs identified above, we recommend:

REC

- Removal of the contaminated soil and contaminated material with confirmatory sampling analyzing for PCBs, hydrocarbons, metals, and VOCs.

Potential RECs

- Conducting soil sampling of the subject property and analyzing for the potential presence of PCBs, hydrocarbons, metals, and VOCs.
- Conducting soil sampling of the subject property and analyzing for the potential presence of herbicides and pesticides.
- Conducting soil sampling of the subject property and analyzing for the potential presence of hydrocarbons, metals, herbicides, and SVOCs.
- Conducting soil sampling of the subject property and analyzing for the potential presence of herbicides.

While not required by ASTM guidelines, given the scope of work of the MPRP, it is recommended to conduct a lead and asbestos survey of the building and lead sampling of the paint on the transformers at the subject property prior to demolition to ensure that, if present, these materials are managed properly during demolition.

While considered de minimis per ASTM guidance, we recommend proper removal and disposal of the batteries that are present on site prior to demolition of the existing structures.

1.0 INTRODUCTION

This report presents the findings of a Phase I ESA conducted for a portion of the property located at 3416 Central Avenue in Riverside, California, APN 223-150-009. The Phase I ESA was performed by Rincon Consultants, Inc. for RBF Consulting (RBF) in general conformance with ASTM E 1527-05 and our proposal dated June 21, 2013 and contract dated June 28, 2013. The following sections present our findings and provide our opinion as to the potential presence and impact of environmental site conditions.

1.1 PURPOSE

The purpose of this Phase I ESA was to provide information for completion of an environmental Initial Study (IS) as defined under the California Environmental Quality Act (CEQA).

A recognized environmental condition (REC) is defined pursuant to ASTM E 1527-05 as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

1.2 DETAILED SCOPE OF SERVICES

The scope of services conducted for this study is outlined below:

- Perform an on-site reconnaissance to identify obvious indicators of the existence of hazardous materials.
- Observe adjacent or nearby properties from public thoroughfares in an attempt to see if such properties are likely to use, store, generate, or dispose of hazardous materials.
- Obtain and review an environmental records database search from Environmental Data Resources, Inc. (EDR) to obtain information about the potential for hazardous materials to exist at the site or at properties located in the vicinity of the site.
- Review the current U.S. Geological Survey (USGS) topographic map to obtain information about the site's topography and uses of the site and properties in the vicinity of the site.
- Review historic aerial photographs and topographic maps to obtain information about historic uses of the subject property and adjacent properties.
- Review historic city directories/fire insurance maps to obtain information about historic uses of the subject property and adjacent properties.

- Review building permit files to obtain historic information pertaining to site construction, demolition and renovations.
- Review California Division of Oil and Gas records to obtain information about historic oil and gas activity in the vicinity of the site.
- Provide an interview questionnaire to the property owner or a designated site representative identified to Rincon by RBF.
- Provide an interview questionnaire to the user of the Phase I ESA.
- Conduct a site interview with the owner or designated representative.

Consistent with guidance in ASTM E 1527-05 our scope of work for this assignment did not include any inquiries with respect to asbestos containing building materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, vapor intrusion or other indoor air quality, biological agents, mold or high voltage power lines.

1.3 SIGNIFICANT ASSUMPTIONS, LIMITATIONS, EXCEPTIONS, SPECIAL TERMS AND CONDITIONS

It is our understanding that RBF and will use the assessment to provide information for completion of an environmental Initial Study (IS) as defined under the California Environmental Quality Act (CEQA). No other use or disclosure is intended or authorized by Rincon. RBF agrees to hold Rincon harmless for any inverse condemnation or devaluation of said property that may result if Rincon's report or information generated is used for other purposes. Also, this report is issued with the understanding that it is to be used only in its entirety. It is intended for use only by the client, and no other person or entity may rely upon the report without the express written consent of Rincon.

We have endeavored to perform this work in accordance with good commercial, customary, and generally accepted environmental investigation practices for similar investigations conducted at this time and in this geographic area. No guarantee or warranties, expressed or implied are provided.

The findings and opinions conveyed in this report are based on findings derived from a site reconnaissance, review of an environmental database report, specified regulatory records and historical sources, and comments made by interviewees. This report is not intended as a comprehensive site characterization and should not be construed as such. Standard data sources relied upon during the completion of Phase I ESAs may vary with regard to accuracy and completeness. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary analysis.

Rincon has identified evidence that suggests that hazardous materials or petroleum products may exist at the subject property at levels that could require mitigation. Additional research, including surface or subsurface sampling and analysis, can reduce RBF's risks, but no

techniques commonly employed can eliminate these risks altogether. In addition, in accordance with our authorized work scope and contract and the general provisions of ASTM E 1527-05, no attempt was made to check for the presence of asbestos, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, vapor intrusion or other indoor air quality, or high voltage power lines.

1.4 USER RELIANCE

This Phase I ESA was prepared for use solely and exclusively by RBF. This report shall not be relied upon by or transferred to any other party without the express written authorization of Rincon Consultants.

2.0 SITE DESCRIPTION

2.1 LOCATION AND LEGAL DESCRIPTION

The subject property consists of approximately 0.55 acres and is located at 3416 Central Avenue in Riverside, California (Figure 2, Site Map). The subject property is an electrical substation located south of Central Avenue and east of Riverside Freeway. The subject property consists of a portion of the current parcel number 223-150-009. The subject property is bound by Central Avenue followed by vacant land, a portion of Riverside Water Company Canal, and Central Avenue Self Storage to the north and northeast, Riverside Water Company Canal followed by Atchison, Topeka, and Santa Fe Railroad and Olivewood Cemetery to the east and southeast, and State Highway 91 (Riverside Freeway) with exit and entrance ramps to the southwest, west and northwest.

2.2 SITE AND VICINITY GENERAL CHARACTERISTICS

The subject property is located in an area that is primarily comprised of residential and commercial land uses. Properties in the vicinity of the subject property include Central Avenue Self Storage, Attic Mini Storage, Olivewood Cemetery/ Memorial Park, Private/commercial office space (including Bank of America, Sheffield Homes, United Healthcare, and Chase), and single-family homes.

2.3 CURRENT USE OF THE PROPERTY

The subject property is currently in use as an electrical substation for the City of Riverside. It is operated and maintained by the Riverside Public Utilities (RPU).

2.4 DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS ON THE SITE

One structure, built in 1950 according to the building permit, was observed on the subject property during the site reconnaissance. The structure was one story and constructed with a

steel frame with aluminum siding. The structure contains twenty four (24) lead/acid batteries in use at the subject property, a spill kit, and mechanical systems that run the electric substation. The structure is cooled by a window air conditioning (A/C) unit. The subject property is developed with several sections of concrete supporting the six transformers and three circuit breakers that make up the substation. The substation is equipped with an automation (SCADA) system which is used to monitor substation operations remotely. The structure, transformers and circuit breakers are located in the northern portion of the property. The southern portion of the property consists of vacant, bare soil. A porta-potty was observed adjacent to the south of the transformers.

A chain-link fence topped with barbed wire was observed surrounding the subject property along the west and north boundaries. A SecuraMesh fence (Power, 2012) topped with barbed wire was observed along the east and south boundaries. A concrete tiered curb was noted at the bottom of the fence in the southern portion of the subject property and a block retailing wall was noted along the northern boundary and northwestern corner of the subject property. Overhead power lines extend from the transformers to adjacent power lines to the north. Overhead transmission lines extend along the eastern boundary of the subject property. Access to the subject property is available from a driveway off of Central Avenue adjacent and north of the site.

2.5 CURRENT USES OF THE ADJOINING PROPERTIES

Current adjacent land uses are described in Table 1 and depicted on Figure 3, Adjacent Land Use Map.

Table 1 - Current Uses of Adjacent Properties

Area	Use
Northern Property	Central Avenue followed by Central Avenue Self Storage, a portion of Riverside Water Company Canal and vacant land
Northeastern, Eastern and Southeastern Property	Riverside Water Company Canal followed by Atchison Topeka and Santa Fe Railroad tracks and Olivewood Cemetery
Southern Property	Vacant land and the cell tower site
Southwestern and Western Property	State Highway 91 (Riverside Freeway) with exit and entrance ramps followed by a commercial office building
Western Property	Riverside Freeway followed by residential development

3.0 USER PROVIDED INFORMATION

As described in ASTM E 1527-05 Section 6, the City of Riverside RPU was interviewed for knowledge pertaining to the subject property to help identify the possibility of recognized environmental conditions in connection with the subject property.

Ms. Irene Martinez, Utilities Real Property Agent for the City of Riverside, completed the User Questionnaire as provided by ASTM E 1527-05 Appendix X3. A copy of the completed

questionnaire is included as Appendix 1. The following information is based on our review of the completed questionnaire.

3.1 TITLE RECORDS

Ms. Elizabeth Espinoza, Engineering Aide of the City of Riverside RPU (Energy Delivery-Substation), provided a copy of the Preliminary Title Report for the subject property. The 2006 Alta Owner's Title was provided through Lawyers Title Insurance Company and dated October 8, 2009 and is included in Appendix 2.

The report was for parcel number 223-150-006 and indicated that several easements are present on or near the subject property:

- 1882: easement for all necessary water ditches, pipes or flumes, Riverside Water Company
- 1885: easement for all necessary water ditches, pipes or flumes, Riverside Canal Company
- 1955: waiver of claims for damages associated with the location of a freeway or highway, State of California
- 1958: dedicated portion of land for Central Avenue grade crossing, City of Riverside
- 1959: easement, Atchison, Topeka and Santa Fe Railway Company, a Kansas Corporation

The exact location of each of the easements listed above is unknown, however, the Riverside Water Company easement and the Atchison, Topeka and Santa Fe Railway Company easement are likely outside the project area boundaries.

3.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

A copy of the judicial lien records for the subject property was not provided. Ms. Martinez is unaware of any information pertaining to environmental liens or activity and use limitations for the subject property.

3.3 SPECIALIZED KNOWLEDGE

Ms. Martinez is unaware of any information pertaining to specialized knowledge or experience regarding the subject property.

3.4 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

Ms. Martinez provided the following commonly known or reasonably ascertainable information regarding the subject property, as described below:

- Ms. Martinez indicated the subject property was purchased by the City of Riverside in 1949 to construct the current substation. Prior use of the vacant subject property is unknown.
- Ms. Martinez did not know of specific chemicals that are present or once were present at the subject property.
- Ms. Martinez was informed that no considerable spills have occurred at the substation. Limited amounts of PCBs leaked from maintenance activities on the former equipment, prior to being replaced with modernized equipment.
- Ms. Martinez indicated that a limited amount of PCB-contaminated soil was excavated and removed from the subject property and replaced with clean fill material in the late in 1980s and early 1990s.

3.5 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

Ms. Martinez was not aware of any information pertaining to a valuation reduction for the subject property relative to any known environmental issues.

3.6 REASON FOR PERFORMING PHASE I ESA

The purpose of this Phase I ESA was to assess the environmental conditions of a property, taking into account commonly and reasonably ascertainable information and to qualify for Landowner Liability Protections under the Brownfields Amendments to CERCLA Liability.

3.7 OTHER

Ms. Martinez indicated that she does not have any knowledge of or experience with any obvious indicators that point to the presence or likely presence of contamination at the subject property.

4.0 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

A representative from the City of Riverside was interviewed regarding the current and former uses of the subject property. The information obtained from this interview is described in the Site Reconnaissance and Interviews section of this report.

An interview questionnaire regarding the current and former uses of the site was provided to RBF to forward to the property owner. The information obtained from the completed Property Owner Questionnaire is described in the Site Reconnaissance and Interviews section of this report. During the preparation of this report, the site was in use as an electric substation, therefore only the City of Riverside representatives were interviewed.

Mr. Raul Ramirez, Utilities Electrical Engineer of the City of Riverside, provided a file transfer protocol (FTP) link which contained several files, including the following documents:

- Various documents regarding PCBs at several Riverside Substations dated from1968 to 1996 consolidated into three portable document format (PDF) files - The documents included in the PDF files included several letters, proposals, agenda items, bids for PCB remediation work, and hand-written notes pertaining to PCB concerns at five City of Riverside substations. One document indicates some oil leaked from transformers at the Magnolia Substation in 1973 and that maintenance activities were performed to repair or replace all of the transformers to remove the concern with PCB-containing oil.
- City of Riverside, Board of Public Utilities, *Memo: Remediation of Substation Facilities*, November 2, 1990 – This memo indicated a soil survey of these five substations (Casa Blanca, Magnolia, Industrial, Plaza, and University) revealed PCB contamination on the substations' property. In addition, although there are several proposals, bids and a draft contract to remove PCB contaminated materials from the Magnolia Substation and the other substations, there is no documentation indicating the work was completed.
- City of Riverside, *Remediation Plan for Electrical Substations Magnolia, Casa Blanca, Industrial, Plaza, and University, Due To Polychlorinated Biphenyl Contamination*, September 1990 – This report, which was included in one of the PDF files from the FTP link, summarized the investigation and preliminary remediation of potential PCB contamination at 5 substations and recommended additional remediation. This report is likely the "soil survey" referred to in the November 2, 1990 document. Three of the substations, including the Magnolia Substation (subject property) were using General Electric (GE) 15 KVA control power transformers (CPTs) from the 1950s. These units contained GE's brand of PCB oil (Pyranol) which contained up to 55,000 ppm of PCBs. These units had documented leaks from around the bushings and seals at the subject property, were repaired, and then removed in 1980. The subject property was inspected on May 12, 1989 and was found to have suspect PCB contamination on the concrete pads which support the transformer bank enclosures. A dark sludgy substance was observed on the concrete around the edges of the transformer enclosures and a PCB "Mark-ML" label was found on the bottom of the enclosure near the sludgy material. Wipe samples, soil samples, and samples of the sludgy material were collected and the results indicated that the subject property was the most heavily contaminated of the five substations with PCBs. The wipe sample contained 293 micrograms per 100 square centimeters (µg/100 cm^2) PCB and 204 parts per million (ppm) PCB was detected in the soil. The sludgy material sampled had concentrations of PCB detected ranging from 236,000 ppm to 623,000 (62% pure PCBs) ppm of PCB. Preliminary remediation at the subject property was conducted from August to September 1989. It consisted first of scraping off as much of the sludgy material as possible and placing the material in 55-gallon drums. Next, the concrete was washed/ rinsed several times using trichloroethane (TCA) as the cleaning solvent. Eventually, the concentration of the PCB contamination on the concrete was reduced to 400 to 2,500 µg/100 cm^2, which was still well above the regulatory threshold level of 100 µg/100 cm^2. There was still some PCB-containing material in the small space between the concrete pads and the metal transformer banks' casings which would be difficult to clean up without a costly temporary dismantling of the equipment. According to this document, sealing the bottom of each transformer bank casing to the concrete to encapsulate the remaining contamination was recommended. The report indicated that the soil samples identified PCB contamination at several locations throughout the subject property and that an estimated 914 square feet of contaminated

soil up to a depth of 10 inches below the known point of contamination (per EPA regulations) should be removed. Ultimately, the report recommended proper removal of the contaminated soil and sealing the transformer bank casings on the bottom to keep additional PCB contamination from leaching out onto the concrete in the future.

- Power Engineers, Inc., *Final Spill Prevention, Control, and Countermeasure Plan (SPCCP) for the City of Riverside, Riverside Public Utilities*, October 22, 2012 – A portion of this document pertained specifically to Magnolia Substation (Section 10.0). Section 10.0 of the SPCCP described the subject property as a 0.75-acre electric substation bound by the railroad to the southeast, Central Avenue to the north and State Route 91 to the west. The report indicated that six transformers and three circuit breakers with a capacity to contain approximately 8,463 gallons of insulating oil are located on the subject property. The report describes a gravel base covering the substation yard as the primary form of secondary containment for any spills or leaks from the transformers and circuit breakers. The access road adjacent to the east belongs to the City of Riverside's Water Department, which maintains a water transmission line. This report identifies the number of transformers and circuit breakers and the oil capacity for each. It describes the drainage pattern should any oil escape the substation as flowing to the west. It details spill prevention and containment measures and includes a site map.

5.0 RECORDS REVIEW

5.1 PHYSICAL SETTING SOURCES

5.1.1 Topography

The current USGS topographic map (Riverside West Quadrangle, 1980, photo-revised from 1967) indicates that the subject property is situated at an elevation ranging from about 863 to 868 feet above mean sea level (MSL) with topography sloping to the west-northwest. The nearby topography consists of steep slopes to the east, southeast, and north and gentle slopes to the west. The area topography generally slopes down toward the west.

5.1.2 Geology and Hydrogeology

Regional Geology

The subject property is located within the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges are a series of ranges separated by northwest trending valleys, sub-parallel to faults branching from the San Andreas Fault.

Site Geology

The Geologic Map of the Santa Ana Quadrangle (Jenkins & Rogers, 1965) indicates that the subject property is underlain with Pleistocene age non-marine sedimentary rocks consisting of older alluvium, lake, playa and terrace deposits. According to the State of California

Department of Conservation, California Geologic Survey, the subject property is not located within an Alquist-Priolo Earthquake Fault Zone.

Regional Groundwater Occurrence and Quality

The subject property is located within the Upper Santa Ana Valley groundwater basin. The Riverside-Arlington Subbasin underlies part of the Santa Ana River Valley in northwest Riverside County where the subject properties lies. This subbasin is bound by Box Springs Mountains on the southeast, Arlington Mountain on the south, La Sierra Heights and Mount Rubidoux on the northwest, and the Jurupa Mountains on the north. The subbasin is replenished by infiltration from Santa Ana River flow, which flows in the northern portion of the subbasin.

To determine groundwater depth and flow direction in the vicinity of the subject property, the State of California RWQCB's online GeoTracker database was reviewed for nearby sites with groundwater monitoring data. Groundwater beneath a gas station (Fast Gas Alameda Management #542 Tesoro located at 3333 Arlington Avenue) located approximately 1,900 feet to the south of the subject property was encountered at depths ranging from about 84 to 89 feet below grade. The reports reviewed indicate that groundwater generally flows to the west.

5.2 STANDARD ENVIRONMENTAL RECORD SOURCES

Environmental Data Resources, Inc. (EDR) was contracted to provide a database search of public lists of sites that generate, store, treat or dispose of hazardous materials or sites for which a release or incident has occurred. The EDR search was conducted for the subject property and included data from surrounding sites within a specified radius of the property. A copy of the EDR report, which specifies the ASTM 05 search distance for each public list, is included as Appendix 3. As shown on the attached EDR report, Federal, State and County lists were reviewed as part of the research effort.

Sites that were identified within one-half mile of the subject property and orphan site listings that may affect the subject property are listed in Table 2, EDR Listing Summary of Sites Within One Half-Mile of the Subject Property (see Appendix 3 for a complete listing of sites reported by EDR) and include sites that appear in the following databases:

CA FID UST: California Facilities Inventory Database contains active and inactive underground storage tank locations as provided by the California State Water Resources Control Board.

EDR US Historical Auto Stations: EDR 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. EDRs review was limited to those categories of sources that might include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to, gas, gas station, gasoline station, filing station, auto, automobile repair, auto service station, service station, etc.

HAZNET: Hazardous Waste Information System. Data that are extracted from the copies of hazardous waste manifests received each year by the DTSC (information is provided by the Department of Toxic Substances Control).

HIST CORTESE: This historical listing includes sites designated by the State Water Resources Control Board (SWRCB), the Integrated Waste Board - Solid Waste Information System (SWIS), and the Department of Toxic Substances Control (CALSITES). CALSITES contains information on Brownfield properties with confirmed or potential hazardous contamination. The SWIS records 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.

HIST UST: The Hazardous Substance Storage Container Database is a historical listing of UST sites. This database is maintained by the State Water Resources Control Board.

LUST: LUST records contain an inventory of reported leaking underground storage tank incidents. This database is maintained by the State Water Resources Control Board.

RCRA-(TSD, LQG, SQG): RCRAInfo is U.S. 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. RCRAInfo replaces the data and recording abilities of the Resource Conservation and Recovery Information System (RCRIS). The RCRAInfo database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by RCRA. Conditionally exempt small quantity generators (CESQG) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQG) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQG) generate over 1,000 kg of hazardous waste or over 1 kg of acutely hazardous waste per month. Transporters move hazardous wastes from the generator off-site to a facility that can recycle, treat, store or dispose of the waste. TSDFs treat store or dispose of the waste.

SLIC: This list includes sites that have had known spills, leaks, investigations or clean-ups of hazardous wastes or substances (information is provided by California Regional Water Quality Control Board).

SWEEPS UST: Statewide Environmental Evaluation and Planning System. These underground storage tank listings were updated and maintained by a company contracted by the State Water Resources Control Board in the early 1980s. This database contains a historical listing of active and inactive UST locations. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

UST: The UST database contains registered USTs. This database is maintained by the State Water Resources Control Board.

Table 2 - EDR Listing Summary of Sites Within One-Half Mile of the Subject Property

Site Name	Site Address	Distance from Subject Property (miles)	Database Reference
Olivewood Cemetery[1]	3300 Central Ave.	<1/8 mile, east	**LUST**, Historical CORTESE
Texaco Service Station/ Texaco Star Mart and A&W/ (Texaco Central Riverside)[1]	3498 Central Ave.	<1/4 mile, west	EDR US Historical Auto Stations, CA FID UST, HAZNET, Historical CORTESE, Historical UST, **LUST**, RCRA-SQG, SWEEPS UST, UST
Shell Central[1]	3504 Central Ave.	<1/2 mile, west	**LUST**
Digas/ Alameda Management #542/ Tesoro 915 (Fast Gas Alameda Management #542 Tesoro)[1]	3333 Arlington Ave.	<1/2 mile, south	CA FID UST, Historical CORTESE, **LUST,** Historical UST, SWEEPS UST
Thrifty Oil #342/ ARCO #9712[1]	3750 Central Ave.	<1/2 mile, west	CA FID UST, Historical CORTESE, **LUST,** SWEEPS UST
Riverside Management #5/ 915 (J & L Properties)[1]	3417 Arlington Ave.	<1/2 mile, south-southwest	CA FID UST, Historical CORTESE, Historical UST, **LUST,** SWEEPS UST
Unocal #4628[1]	3434 Arlington Ave.	<1/2 mile, south-southeast	**LUST**
Texaco Arlington[2] (Riverside Chevron)[1]	3518 Arlington Ave.	1/2 mile, southwest	**LUST**
Riverside Plume[1,2]	Downtown Riverside/ Riverside Basin II	1.5-mile, northeast	**SLIC**

*Databases listed in **BOLD** are databases that indicate a release has occurred on the identified property.*
[1] Indicates a site name with the same address that was identified on the Geotracker website
[2] Indicates a site identified in the EDR orphans list

5.2.1 Subject Property

The subject property and adjacent properties were not listed in any of the databases searched by EDR. Additionally, as shown in the EDR report, the subject property is not listed on the following databases: CORTESE, Toxic Release Inventory (TRIS), or Emissions Inventory Database (EMI).

5.2.2 Nearby Properties Located within a One-Quarter Mile Radius of the Site

One property, located up-slope and within one-eighth mile of the subject property, was listed in two databases searched by EDR. Another property, located down-gradient and within one-fourth mile of the subject property, was listed in databases searched by EDR. While both were listed in the LUST database, both were determined to be de minimis. Following is a summary of each of these sites:

- *Olivewood Cemetery at 3300 Central Avenue* – This property is located approximately 100 feet to the east and southeast of the subject property. A small drainage channel (Riverside Water Company Canal) and the Atchinson, Topeka, and Santa Fe Railroad are located adjacent to the east of the Olivewood Cemetery (Cemetery). The Cemetery encompasses over 100 acres and covers an area on both the north and south side of Central Avenue. The LUST site is located near the entrance to the Cemetery, approximately 750 feet east of the subject property. The LUST case involved leak testing an underground storage tank associated with the main structure at the Cemetery and discovering a leak. The case

involved soil sampling and soil vapor borings and the results of these analyses required site remediation. According to the EDR report and the files reviewed from California State Water Resources Control Board's (SWRCBs) online GeoTracker database, soil was the only material impacted. This record indicates that the extent of contamination was determined, the soil was removed and the County of Riverside Department of Health provided a closure letter dated June 20, 1991. Based on the media affected and its closed status, the site is considered a de minimis condition.

- *Texaco Service Station/ Star Mart and A&W at 3498 Central Avenue* – This property is located approximately 1,200 feet to the west and down-gradient of the subject property. The Texaco Service Station LUST site involves limited groundwater contamination from gasoline. Based on the groundwater flow direction to the west and its distance from and location down-gradient of the subject property, the site is considered a de minimis condition.

5.2.3 Orphan Sites

The Texaco Arlington at 3518 Arlington Avenue is located approximately one-half mile to the southwest of the subject property and down-slope. The LUST case involved soil contamination from gasoline, but the case was closed in 1992. Based on the media affected, the groundwater flow direction to the west, its location cross-gradient to the subject property and its distance from the subject property, the site is considered a de minimis condition.

The only information provided in the EDR orphan report for Riverside Plume was that it was an open case as of April 13, 1994 and involved groundwater. The Geotracker database listed the following additional information: contaminants of concern are fertilizer, pesticides/herbicides, and volatile organic compounds (VOCs). Please refer to the following section for more information about the Riverside Plume site.

5.3 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

5.3.1 Review of Agency Files

Because no EDR database-listed sites were identified on or adjacent to the subject property, no agency files were reviewed as part of this research effort; however, the Riverside Plume was identified as a potential concern as described in the previous section. Rincon contacted the California State Water Resources Control Board's (SWRCBs) Santa Ana Region to request a file review of the Riverside Plume site by phone and email on July 3, July 8, and July 12, 2013. Mr. Kamron Saremi of the Santa Ana SWRCB left a voicemail with Rincon on July 15, 2013 indicating he would call back with information about the Riverside Plume site. Mr. Saremi emailed PDF figures depicting the location of the Riverside Plume site on July 16, 2013. One figure, dated June 8, 2005, identifies the site as the 'Former FMC Facility' and shows the 'Former FMC Plant' located northwest of the intersection of 14th Street and Howard Avenue. This site is located approximately 1.5 miles to the northeast of the subject property. The Groundwater Monitoring Report Figure 3 lists the concentration of tetrachloroethene (PCE), trichloroethene (TCE), and 1,1-dichloroethene (DCE) in groundwater from six monitoring wells located on and around the site. Concentrations ranged from less than 1.0 microgram per liter (µg/L) or 'non-

detect' to 180 µg/L of TCE, non-detect to 26 µg/L of PCE, and non-detect to 5.4 µg/L 1,1-DCE. Figure 2, dated May 27, 1994, was labeled as 'F.M.C., Groundwater Elevation March 1994 Data.' This figure identifies the groundwater elevation as approximately 774 to 776 feet above MSL and the direction of groundwater flow to the west-southwest. The most recent topographic map (Riverside East, 1980) depicts the site elevation as ranging from approximately 870 to 880 feet above MSL, which would suggest that the depth to groundwater at the site is approximately 100 feet below grade. The other 1994 figures depict the defined PCE, TCE, and 1,1-DCE plumes within a small radius around the site. One other DCE plume is depicted 500 feet to the northwest of the site but is also defined within a limited area. Based on the distance from the subject property, the depth to groundwater, the direction of groundwater flow to the west-southwest, and the chemical of concern (COC) plumes being defined this site is considered a de minimis condition.

During the preparation of this Phase I ESA, we reviewed the California SWRCB's online GeoTracker database to determine if the subject property is listed in the database as an unauthorized release site. In addition, we also reviewed the Department of Toxic Substances Control's (DTSCs) online Envirostor database to determine if the subject property is listed as a hazardous waste permitted facility or cleanup site in the Envirostor database. The subject property was not listed in either database.

5.3.2 Review of State of California Division of Oil and Gas Records

A review of the District Oil and Gas Map located on the Department of Conservation, Division of Oil, Gas & Geothermal Resources website indicates that no oil wells are located on the subject property or within a one-mile radius of the subject property. The oil well in closest proximity to the subject property is about 6.7 miles to the north of the subject property. This well is identified as "Dana 1" and was operated by John W. Brashears. Records indicate that the well was dry and was plugged in 1962.

5.3.3 Local Land Records

A copy of the judicial lien records for the subject property was not provided. Ms. Martinez is unaware of any information pertaining to environmental liens or activity and use limitations for the subject property.

5.4 HISTORICAL USE INFORMATION ON THE PROPERTY AND THE ADJOINING PROPERTIES

The historical records review completed for this Phase I ESA includes aerial photographs, city directory listings, and topographic maps as detailed in the following sections. Table 3 provides a summary of the historical use information available for the subject property dating back to 1901. The records reviewed showed that the subject property was historically used for agricultural and industrial (utility substation) purposes. The records reviewed show no structural development of the property prior to 1950.

5.4.1 Review of Historic Aerial Photographs

Aerial photographs were provided by EDR on July 3, 2013 and are summarized in Table 3. Copies of the aerial photographs are included in Appendix 3.

5.4.2 Review of Fire Insurance Maps

As indicated in the EDR report included in Appendix 3, Sanborn fire insurance maps were not available for the subject property.

5.4.3 Review of City Directory Listings

City Directory Listings were provided by EDR on June 28, 2013 and are summarized in Table 3. Copies of the city directory listings are included in Appendix 3.

5.4.4 Review of Historic Topographic Maps

Historic topographic maps were provided by EDR on July 1, 2013 and are summarized in Table 3. Copies of the historic topographic maps are included in Appendix 3.

5.4.5 Review of City of Riverside Building Permit Records

Building permit records for the subject property were researched on the City of Riverside Building Safety website and one record for 1950 was found. The permit is described in Table 3 and a copy is included in Appendix 2.

Table 3 - Historical Use of the Subject Property and Adjacent Properties

Year	Use	Source
3416 Central Avenue		
1901	The subject property is depicted as vacant.	Topographic Map (TM) – Riverside Quadrangle
1901	Similar to the 1901 Riverside TM.	TM – Elsinore Quadrangle
1901	Similar to the 1901 Elsinore TM.	TM – Southern CA Sheet 1 Quadrangle
1931	The subject property is developed with a portion of an orchard in the north and is shown as vacant in the southern portion. Trees border the subject property along the north and the east.	Aerial Photograph (AP) - Fairchild
1938	The subject property is developed with an orchard.	AP – Laval
1942	Similar to the 1901 Southern CA Sheet 1 TM.	TM – Riverside Vicinity Quadrangle
1947	Similar to the 1942 TM.	TM – Riverside Quadrangle
1948	The subject property is shown as vacant.	AP – USGS
1950	The permit number 10474 indicated the subject property was developed with a single 8 foot by 16 foot structure to house the substation controls. The structure was built on a four inch concrete slab and constructed out of aluminum and steel. It was built for the City of Riverside Light Department and was inspected in July of 1950.	Department of Building, City of Riverside
1953	The northeastern portion of the subject property is shown as partially developed with small structures. The small shapes appear similar to some of the transformers and the small adjacent structure appears similar to what exists on the subject property today. There seems to be less equipment on the subject property than was noted during the site reconnaissance. The rest of the subject property is shown as vacant.	AP – Pacific Air
1953	Similar to the 1947 TM.	TM – Riverside West Quadrangle
1963	The substation transformers appear to be constructed on the subject property as well as a fence surrounding the subject property. The orientation of the structures appears similar to present site conditions except there seem to be fewer transformers. Trees border the fence around the subject property on the west, north and east.	AP – Mark Hurd
1967	Similar to the 1963 AP.	AP – Western
1967	Similar to the 1953 TM.	TM – Riverside West Quadrangle
1973	Similar to the 1967 TM.	TM – Riverside West Quadrangle

Table 3 - Historical Use of the Subject Property and Adjacent Properties

Year	Use	Source
1977	Similar to the 1967 AP with the addition of more equipment associated with the transformers.	AP - Teledyne
1980	Similar to the 1973 TM.	TM – Riverside West Quadrangle
1989	Similar to the 1977 AP.	AP – USGS
1994	Similar to the 1989 AP.	AP – EDR
2005	Similar to the 1994 AP, except the trees along the southern boundary of the subject property have been removed for the highway exit expansion.	AP – EDR
2006	Similar to the 2005 AP.	AP – EDR
2009	Similar to the 2006 AP except there are no trees along the western, northern or eastern subject property boundaries.	AP – EDR
2010	Similar to the 2010 AP.	AP – EDR
2012	Similar to the 2012 AP.	AP – EDR
Northern, Northwestern, and Northeastern Adjoining Parcels – 3399 Central Avenue		
1901	A road is depicted adjacent to the subject property to the north and the Riverside Canal Number 1 is depicted adjacent to the northeast of the subject property. The area further north is depicted as vacant.	TM – Riverside Quadrangle
1901	Similar to the 1901 Riverside TM with the addition of two structures depicted adjacent to the road to the north of the subject property.	TM – Elsinore Quadrangle
1901	Similar to the 1901 Elsinore TM.	TM – Southern CA Sheet 1 Quadrangle
1931	Orchards are shown to the northwest, north, and northeast of the subject property across from the road (Central Avenue). Another road branches off of Central Avenue to the north and a canal parallels that road. A railroad track is shown to the northeast.	AP - Fairchild
1938	Similar to the 1931 AP.	AP – Laval
1942	A road and vacant land are depicted adjacent to the north of the subject property.	TM – Riverside Vicinity Quadrangle
1947	An orchard is depicted to the north, northwest and northeast of the subject property. A road, canal and railroad tracks are depicted to the northeast of the subject property.	TM – Riverside Quadrangle
1948	Similar to the 1938 AP.	AP – USGS
1953	Similar to the 1948 AP except the area adjacent to the north of the subject property is shown as vacant disturbed land with a few trailers and the area to the northwest is shown as a new residential development.	AP – Pacific Air

Table 3 - Historical Use of the Subject Property and Adjacent Properties

Year	Use	Source
1953	An orchard, a road, a canal and railroad tracks are depicted to the northeast of the subject property. The area to the north and northwest of the subject property is depicted as residential development.	TM – Riverside West Quadrangle
1963	The area to the northwest of the subject property is shown as a freeway (Riverside Freeway) with exit and entrance ramps. The residential development is adjacent to the northwest of the freeway. The area adjacent to the north of the subject property is a multilane road (Central Avenue), entrance ramps to the northbound lanes of the freeway, and a portion of the canal (Riverside Water Company Canal). The area to the northeast of the subject property is shown as vacant land with a railroad.	AP – Mark Hurd
1967	Similar to the 1963 AP, except areas of land in between the freeway entrance ramps are now shown as vegetated.	AP – Western
1967	Similar to the 1953 TM, except the orchards to the northeast of the subject property are now depicted as vacant land. The Riverside Freeway is depicted adjacent to the north of the subject property.	TM – Riverside West Quadrangle
1973	Similar to the 1967 TM.	TM – Riverside West Quadrangle
1977	Similar to the 1967 AP.	AP - Teledyne
1980	Similar to the 1973 TM.	TM – Riverside West Quadrangle
1989	Similar to the 1977 AP with new commercial structures shown to the northeast on the eastern side of the railroad tracks.	AP – USGS
1994	Similar to the 1989 AP with the addition of several large commercial structures and associated parking (identified as a Storage Space business during the site reconnaissance) adjacent to the northeast of the subject property.	AP – EDR
1996	3399 Central Avenue is listed as a commercial property with two business listings: Central Avenue Self Storage and U-Haul Company. The address was identified to the northeast of the subject property during the site reconnaissance.	City Directory (CD) – Pacific Bell
2001	Similar to the 1996 CD.	CD – Haines & Company, Inc.
2002	Similar to the 2001 CD.	CD – SBC Pacific Bell
2005	Similar to the 1994 AP.	AP – EDR
2006	Similar to the 2005 AP.	AP – EDR
2007	Similar to the 2002 CD, except only the business identified as Central Avenue Self Storage is listed.	CD – Cole Information Services
2009	Similar to the 2006 AP.	AP – EDR

Table 3 - Historical Use of the Subject Property and Adjacent Properties

Year	Use	Source
2010	Similar to the 2009 AP.	AP – EDR
2012	Similar to the 2007 CD.	CD – Cole Information Services
2012	Similar to the 2010 AP.	AP – EDR
Eastern Adjoining Parcels - 3300 Central Avenue		
1901	Riverside Canal Number 1 and the San Bernardino and San Diego Line (railroad tracks) of the Southern California Railroad are depicted adjacent to the east of the subject property.	TM – Riverside Quadrangle
1901	Similar to the 1901 Riverside TM.	TM – Elsinore Quadrangle
1901	Similar to the 1901 Elsinore TM.	TM – Southern CA Sheet 1 Quadrangle
1930	Olivewood Cemetery is listed at 3441 Central Avenue.	CD – Los Angeles Directory Co.
1931	A canal and railroad tracks are depicted immediately adjacent to the east. A developed park area (assumed to be Olivewood Cemetery/Memorial Park that was observed during the site reconnaissance) is depicted adjacent to the east of the railroad tracks.	AP - Fairchild
1938	Similar to the 1931 AP.	AP – Laval
1942	The Riverside Canal, railroad tracks and Olivewood Cemetery are depicted adjacent to the east of the subject property. The cemetery is located primarily on a steep hill.	TM – Riverside Vicinity Quadrangle
1945	The property adjacent to the east of the subject property is identified as Olivewood Cemetery at 3300 Central Avenue.	CD – Los Angeles Directory Co.
1946	Similar to the 1945 CD.	CD – Southern California Telephone Company
1947	Similar to the 1942 TM.	TM – Riverside Quadrangle
1948	Similar to the 1938 AP.	AP – USGS
1951	Similar to the 1946 CD.	CD - Los Angeles Directory Co.
1953	Similar to the 1948 AP.	AP – Pacific Air
1953	Similar to the 1947 TM.	TM – Riverside West Quadrangle
1955	Similar to the 1951 CD.	CD – Luskeys Brothers & Co., Publishers
1960	Similar to the 1955 CD.	CD – Luskeys Brothers & Co., Publishers

Table 3 - Historical Use of the Subject Property and Adjacent Properties

Year	Use	Source
1963	Similar to the 1953 AP with the addition of some structures associated with the cemetery near the center of the cemetery.	AP – Mark Hurd
1966	Similar to the 1960 CD.	CD – Luskey Brothers & Company Inc.
1967	Similar to the 1963 AP.	AP – Western
1967	Similar to the 1953 TM.	TM – Riverside West Quadrangle
1973	Similar to the 1967 TM.	TM – Riverside West Quadrangle
1977	Similar to the 1967 AP.	AP - Teledyne
1977	Similar to the 1966 CD.	CD – Pacific Telephone
1980	Similar to the 1957 TM.	TM – Riverside West Quadrangle
1981	Similar to the 1977 CD.	CD – Pacific Telephone
1986	Similar to the 1981 CD.	CD – Pacific Bell Yellow Pages
1989	Similar to the 1977 AP.	AP – USGS
1990	Similar to the 1986 CD.	CD – Pacific Bell
1994	Similar to the 1989 AP.	AP – EDR
1996	Similar to the 1990 CD.	CD – Pacific Bell
2002	Similar to the 1996 CD, except the property is identified as Olivewood Memorial Park.	CD – SBC Pacific Bell
2005	Similar to the 1994 AP.	AP – EDR
2006	Similar to the 2005 AP.	AP – EDR
2007	Similar to the 2002 CD.	CD – Cole Information Services
2009	Similar to the 2006 AP.	AP – EDR
2010	Similar to the 2009 AP.	AP – EDR
2012	Similar to the 2007 CD.	CD – Cole Information Services
2012	Similar to the 2010 AP.	AP – EDR

Table 3 - Historical Use of the Subject Property and Adjacent Properties

Year	Use	Source
Southern, Southwestern, and Southeastern Adjoining Parcels		
1901	Riverside Canal Number 1 and the San Bernardino and San Diego Line (railroad tracks) of the Southern California Railroad are depicted adjacent to the subject property to the southeast. The area adjacent to the south of the subject property is depicted as vacant. The area further southeast is a steep bluff.	TM – Riverside Quadrangle
1901	Similar to the 1901 Riverside TM.	TM – Elsinore Quadrangle
1901	Similar to the 1901 Elsinore TM.	TM – Southern CA Sheet 1 Quadrangle
1931	A canal and railroad tracks are shown adjacent to the south and southeast of the subject property. Vacant land and two rows of an orchard are shown adjacent to the southwest of the subject property.	AP - Fairchild
1938	Similar to the 1931 AP.	AP – Laval
1942	Vacant land is depicted adjacent to the south and southwest of the subject property and Riverside Canal and railroad tracks are depicted adjacent to the southeast.	TM – Riverside Vicinity Quadrangle
1947	Similar to the 1942 TM.	TM – Riverside Quadrangle
1948	Similar to the 1938 AP, except the area to the southwest of the subject property is shown as vacant.	AP – USGS
1953	Similar to the 1948 AP.	AP – Pacific Air
1953	Similar to the 1947 TM.	TM – Riverside West Quadrangle
1963	Similar to the 1953 AP, except the area to the southwest of the subject property is shown as a multi-lane freeway.	AP – Mark Hurd
1967	Similar to the 1963 AP.	AP – Western
1967	Similar to the 1953 TM, with the addition of Riverside Freeway adjacent to the southwest of the subject property and residential development further southwest.	TM – Riverside West Quadrangle
1973	Similar to the 1967 TM.	TM – Riverside West Quadrangle
1977	Similar to the 1967 AP.	AP - Teledyne
1980	Similar to the 1973 TM.	TM – Riverside West Quadrangle
1989	Similar to the 1977 AP.	AP – USGS
1994	Similar to the 1989 AP.	AP – EDR
2005	Similar to the 1994 AP.	AP – EDR

Table 3 - Historical Use of the Subject Property and Adjacent Properties

Year	Use	Source
2006	Similar to the 2005 AP.	AP – EDR
2009	Similar to the 2006 AP.	AP – EDR
2010	Similar to the 2009 AP.	AP – EDR
2012	Similar to the 2010 AP.	AP – EDR
Western Adjoining Parcels - 3400 Central Avenue		
1901	A structure is depicted adjacent to the subject property to the west.	TM – Riverside Quadrangle
1901	Similar to the 1901 Riverside TM.	TM – Elsinore Quadrangle
1901	Similar to the 1901 Elsinore TM.	TM – Southern CA Sheet 1 Quadrangle
1931	A residential structure with associated agricultural structures is shown to the west. A few rows of an orchard and some vacant land are shown immediately adjacent to the west of the subject property.	AP - Fairchild
1938	Similar to the 1931 AP with the addition of more orchard rows.	AP – Laval
1942	Vacant land, followed by a structure is depicted west of the subject property.	TM – Riverside Vicinity Quadrangle
1947	Similar to the 1942 TM.	TM – Riverside Quadrangle
1948	Similar to the 1938 AP, except no orchard rows are shown adjacent to the west.	AP – USGS
1953	Similar to the 1948 AP.	AP – Pacific Air
1953	Similar to the 1947 TM.	TM – Riverside West Quadrangle
1963	A multi-lane freeway and exit ramp are shown adjacent to the west of the subject property.	AP – Mark Hurd
1967	Similar to the 1963 AP.	AP – Western
1967	The Riverside Freeway and exit ramp are depicted adjacent to the west of the subject property and residential development is depicted west of the freeway.	TM – Riverside West Quadrangle
1973	Similar to the 1967 TM.	TM – Riverside West Quadrangle
1977	Similar to the 1967 AP.	AP - Teledyne
1980	Similar to the 1973 TM.	TM – Riverside West Quadrangle
1989	Similar to the 1977 AP.	AP – USGS

Table 3 - Historical Use of the Subject Property and Adjacent Properties

Year	Use	Source
1994	Similar to the 1989 AP.	AP – EDR
1996	The Riverside Freeway (91) is adjacent to the subject property to the west. Adjacent to the west of the Riverside Freeway is listed 3400 Central Avenue with several business listings, including: Kasner Edmund LCSW, Lincoln Club of Riverside County, Oxford Development Inc., Historic Mission Inn Corp, Associated Therapists of Riverside, Jones Joanne MFCC, Blue Sheild of California Riverside Sales, FHP Health Care, Old Republic Title Company, US Government, Sheffield Homes, Inlanders for Oliver Crest, and Roberts Mary S Foundation.	CD – Pacific Bell
2001	Similar to the 1996 CD.	CD – Haines & Company, Inc.
2002	Similar to the 2001 CD.	CD – SBC Pacific Bell
2005	Similar to the 1994 AP.	AP – EDR
2006	Similar to the 2005 AP.	AP – EDR
2007	Similar to the 2002 CD, except some new commercial businesses are listed, including: Trimark Pacific Homes, House Representatives US, Pacific Care of California, Electronic Data Systems Corp, Ad Valorum LLC American Home Mortgage, AK Stozzi LLC, Tucceri Associates, and Becklund Rogene MFCC.	CD – Cole Information Services
2009	Similar to the 2006 AP.	AP – EDR
2010	Similar to the 2009 AP.	AP – EDR
2012	Similar to the 2010 AP.	AP – EDR
2012	Similar to the 2007 CD, except some new commercial businesses are listed, including: Bank of America, E3 Executive Coaching, Asset Planning & Administration, Metlife Home Loans, Vestagee Inc, Bayside Financial Group LLC, Neal Margaret LCSW, and Hot Buy King.	CD – Cole Information Services

5.4.6 Summary of Historic Uses of the Site

The photos, maps, and city directories reviewed indicate the subject property was vacant in 1901, developed with an orchard on a portion of the subject property in 1931, fully developed with an orchard in 1938, vacant from 1942 to 1948, developed with a single 8 foot by 16 foot structure for the City of Riverside Light Department in 1950, partially developed with the existing substation transformers in 1953, and fully developed as an electrical substation from 1963 to 2012.

5.4.7 Gaps in Historical Sources

Several gaps of greater than 5 years were identified in the historical records reviewed, from 1901 to 1931, 1931 to 1938, 1953 to 1963, 1967 to 1973, 1980 to 1989, and 1994 to 2005. These gaps are considered insignificant because the subject property use appears to be in similar before and after each data gap, except the data gap from 1901 to 1931. The subject property is shown as vacant in 1901 and partially developed with an orchard in 1931, so the only likely change was from vacant to an orchard at some point between 1901 and 1931. Therefore, these data gaps are considered de minimis.

6.0 SITE RECONNAISSANCE AND INTERVIEWS

Rincon Consultants performed a reconnaissance of the site on July 1, 2013 accompanied by Ms. Espinoza and Mr. Darrell Otjen (Substation Electrician) of the City of Riverside RPU. The purpose of the reconnaissance was to observe existing site conditions and to obtain information indicating the possible presence of recognized environmental conditions in connection with the property.

6.1 INTERVIEWS

6.1.1 Interview with Owner

An interview questionnaire was provided to the property owner, the City of Riverside. A copy of the completed Property Owner Questionnaire is included in Appendix 1.

6.1.2 Interview with Site Manager/ Representative

Two City of Riverside RPU employees provided access to the subject property and answered questions about the subject property: Ms. Espinoza and Mr. Otjen. Mr. Otjen indicated he believed the subject property had been developed with the electric substation since sometime in the 1950s. He did not know who had owned the property prior to the City of Riverside. He was not aware of any hazardous materials releases or other environmental liabilities associated with the subject property. He indicated RPU was responsible for maintenance and operation of the substation. Mr. Otjen also indicated that RPU removes the sludge-like oil from the bottom of the transformer containers and collect it in containers that are stored at another RPU facility before it is disposed of by a private contractor. Mr. Otjen stated that Mr. Joe Solano (Landscape Supervisor) of RPU was responsible for weed management at the substation properties.
In addition, two other RPU employees were interviewed over the phone after the site reconnaissance. Mr. Ramirez provided files related to the subject property through an ftp website and indicated in a phone interview that RPU could not find documentation of the soil removal/remediation at the subject property that was recommended in the 1990 report. He believed the remediation was completed and would continue to look for the documentation. Mr. Solano of RPU, interviewed on the phone on July 18, 2013, indicated that the RPU sprays Roundup weed killer three to four times a year around the perimeter of the substation. They spray it a few feet inside of the fence-line in order to minimize off-site contamination. RPU has conducted this maintenance as long as he has been working for RPU (approximately four

years). He noted that they also started spraying Oust once a year about two years ago. Any weed management that was conducted prior to his employment is unknown.

Ms. Irene Martinez, Utilities Real Property Agent for the City of Riverside, completed the Property Owner Questionnaire. Ms. Martinez indicated on her questionnaire that the substation structure on the subject property is approximately 63 years old. The City of Riverside is the current owner of the subject property and reportedly obtained ownership of the subject property in July 29, 1949. Prior to that date, Robert Van Eck and Margareth H. Van Eck were the owners of the subject property. Ms. Martinez indicated that the subject property is currently in use for power distribution. She also indicated that the adjacent properties were Central Avenue to the north, State Highway 91 to the south and west, and Riverside Water Company Canal to the east and south.

Ms. Martinez indicated on her questionnaire that she is not aware of any pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property. In addition, she is not aware of any notice from any government entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

6.1.3 Interviews with Occupants

Because the subject property is in use as an electric substation, no occupants were interviewed as part of this research effort.

6.1.4 Interviews with Local Government Officials

In addition to interviews with representatives of the City of Riverside RPU, we reviewed the California SWRCB's online GeoTracker database to determine if the site is listed in the database as an unauthorized release site. In addition, we also reviewed the Department of Toxic Substances Control's (DTSCs) online Envirostor database to determine if the site is listed as a hazardous waste permitted facility or cleanup site in the Envirostor database. The subject property was not listed in either database.

Rincon contacted the California SWRCB Santa Ana Regional Office to request a file review of the Riverside Plume site by phone and email on July 3, July 8, and July 12, 2013. Mr. Kamron Saremi of the SWRCB Santa Ana Regional office emailed PDF figures depicting the location of the Riverside Plume site on July 16, 2013. The summary of the findings from these documents is detailed in the 'Review of Agency Files' section.

6.1.5 Interviews with Others

Rincon attempted to find a representative at the Olivewood Cemetery and other nearby properties to interview as part of this investigation, however, no property representatives were identified. In addition, the majority of the subject property is bound by a freeway and a canal, which would not have property representatives present onsite. No other neighboring property owners were interviewed as part of this research effort.

6.2 SITE RECONNAISSANCE

6.2.1 Methodology and Limiting Conditions

The site reconnaissance was conducted by 1) observing the subject property from public thoroughfares, 2) observing the adjoining properties from public thoroughfares, 3) observing the interior of the onsite structure, 4) observing the exterior of the structures, 5) and examining the facilities to correlate exterior features with interior features, as necessary.

6.2.3 Current Use of the Property and Adjoining Properties

The subject property is currently in use as an electrical substation for the City of Riverside. It is operated and maintained by the Riverside Public Utilities (RPU).

Adjoining properties include Central Avenue followed by Central Avenue Self Storage to the north, Riverside Water Company Canal followed by Santa Fe Railroad and Olivewood Cemetery/ Memorial Park to the east and southeast, vacant land and the cell tower site to the south, State Highway 91 (Riverside Freeway) to the west and northwest.

6.2.4 Past Use of the Property and Adjoining Properties

Based on our site reconnaissance, past land uses at the subject property and adjacent properties were not readily apparent.

6.2.5 Current or Past Uses in the Surrounding Area

The subject property is surrounded by commercial and residential land uses. Past uses of the surrounding area were not readily apparent based on the site reconnaissance.

6.2.6 Geologic, Hydrogeologic, Hydrologic and Topographic Conditions

Geologic, Hydrogeologic, Hydrologic and topographic information are as previously stated in the Physical Settings Section of this report.

During the site reconnaissance, the topography of the subject property appeared similar to the most recent topographic map (1980 Riverside West Quadrangle) except for the northwestern portion of the subject property. The 1980 topographic map depicts a gentle slope to the west for the subject property and property adjacent to the north. In addition, there is a retaining wall along the northern boundary and party of the western boundary of the subject property which elevates the northwestern portion of the subject property approximately four feet above the nearby roadway. Due to the difference in topography between the subject property and the adjacent property to the north and how it does not match the 1980 topography map, the presence of fill material is likely.

6.2.7 General Description of Structures

Onsite structures are as described previously in the Site Description section of this report.

6.3 INTERIOR AND EXTERIOR OBSERVATIONS

6.3.1 Storage Tanks

Ms. Martinez indicated on her questionnaire, Appendix 1, that to the best of her knowledge, there have been no above or below ground storage tanks on the subject property.

There are six transformers and three circuit breakers on the subject property that reportedly have the capacity to store 8,463 gallons of insulating oil. The identification and capacity for each transformer and circuit breaker are listed in Table 4.

The transformers and circuit breakers were painted and appeared in good condition. The only secondary containment noted during the site reconnaissance was the gravel in the yard around the concrete. Should a large oil spill occur, it appeared that the oil would drain to the west toward the north-bound Riverside Freeway exit ramp. No other above-ground or underground tanks were reported by the site representative or observed during the site reconnaissance. Two vents for what was identified by Mr. Otjen as an underground electrical vault were observed in the northwestern portion of the subject property. Rincon did not observe indications of potential releases from the transformers on the subject property except for a few small (approximately 4-inch diameter) stains noted on the concrete.

Table 4 – Transformer and Circuit Breaker Capacities[1]

Identification	Pieces of Equipment	Capacity (Gallons)	Total Capacity (Gallons)
T-1 Transformer	1	1,220	1,220
T-2 Transformer	1	1,220	1,220
T-3 Transformer	1	1,358	1,358
T-4 Transformer	1	1,220	1,220
T-5 Transformer	1	1,358	1,358
T-6 Transformer	1	1,358	1,358
52-3 (34-15) Circuit breaker	3	81	243
52-4 (34-14) Circuit breaker	3	81	243
52-5 (34-13) Circuit breaker	3	81	243
Total Subject Property Oil Storage Capacity			**8,463**

[1] *Information obtained from the 2012 SPCC Plan*

6.3.2 Drums

During the site reconnaissance, Rincon did not observe evidence of drums onsite. Ms. Martinez indicated on her questionnaire, Appendix 1, that there have been no drums on the subject property.

6.3.3 Hazardous Substances and Petroleum Products

The presence of various hazardous substances and petroleum products observed during the site reconnaissance are as follows:

- Insulating oil (potentially as much as 8,000 gallons) inside the transformers and circuit breakers on the subject property, which may contain PCBs.
- 24 lead/acid batteries contained within the one-story structure.

No other hazardous substances or petroleum products were identified at the subject property during the site reconnaissance.
Ms. Martinez indicated on her questionnaire that the substation equipment has the capacity to store and use 8,463 gallons of insulating oil.

6.3.4 Unidentified Substance Containers

No unidentified substance containers or unidentified containers that might contain hazardous substances were observed during the site reconnaissance.

6.3.5 Odors

During the site reconnaissance, Rincon did not identify any strong, pungent, or noxious odors.

6.3.6 Pools of Liquid

During the site reconnaissance, Rincon did not observe any pools of liquid including standing surface water. In addition, sumps containing liquids likely to be hazardous substances or petroleum products were not observed. Ms. Martinez indicated on her questionnaire, Appendix 1, that there have been no pools of liquid, standing water or sumps on the subject property.

6.3.7 Indications of Polychlorinated Biphenyls (PCBs)

During the site reconnaissance, Rincon observed six transformers and three circuit breakers located in the northern portion of the subject property which contain insulating oil that might contain PCBs. Two of the transformers had 'non-PCB' stickers on them; however, it is not clear whether all of the transformers contain PCB-free oil. There was no indication of a release in the vicinity of the transformers aside from a few stains on the concrete next to the transformers. These transformers are owned by the City of Riverside. The transformers are maintained by the City of Riverside RPU. Although Mr. Otjen indicated that it is unlikely that the equipment on the property is PCB contaminated, the only way to know with certainty is by testing.
Two pole-mounted transformers were observed along the eastern boundary of the subject property.
Ms. Martinez indicated on her questionnaire that six transformers (2.3 Mega Volt-Ampere capacity/ transformer) are currently present on the subject property. She also indicated that there were limited levels of PCB found in the soil in the late 1980s due to maintenance on previous PCB-containing equipment.

6.3.8 Other Conditions of Concern

During the site reconnaissance Rincon did not note any of the following observations:

- *corrosion*
- *clarifiers, and sumps*
- *pits, ponds, and lagoons*
- *stressed vegetation*
- *solid waste/debris*
- *waste water*
- *wells*
- *septic systems/effluent disposal system*

Heating/Cooling – A window A/C unit was observed inside the small on-site building. The A/C unit was in use during the site reconnaissance and appeared in good working order with no evident leaks or stains.

Stained Soil or Stained Pavement – Some stains were noted on the concrete under two of the transformers on the subject property. The stains appeared weathered and centralized in the middle of the concrete. No other staining was observed on the surrounding gravel and soil or on the asphalt driveway entrance inside the fence.

Ms. Martinez indicated on her questionnaire that there had been limited PCB-contaminated soil due to leaks from previous equipment on the subject property.

Fill Material – As stated in the Site Reconnaissance 'Geologic, Hydrogeologic, Hydrologic and Topographic Conditions' section above, the existing site topography indicates the potential presence of fill material on the northwestern portion of the subject property.

7.0 FINDINGS & OPINIONS

Known or suspect environmental conditions associated with the property include the following:

- **Known presence of PCB contaminated soil onsite** - As noted in the summary of the user-provided documents, there was some documentation for transformer leaks as well as soil and material sampling and analysis. The results indicate the presence of PCB-contaminated soil, PCB-contaminated sludgy material on the casing undersides, and PCB contamination on the concrete slabs at the subject property. While the concrete pads were washed/rinsed with TCA to remove most of the PCB contamination, there is still potentially PCB contaminated material between the concrete and the casings. Although the 1990 Riverside document recommended further remediation including removal of contaminated soil, we do not have any information indicating that this remediation was completed. Therefore, the documented presence of contaminated soil and lack of documentation that this contamination has been properly remediated onsite is considered a REC.
- **Past use of the subject property as an electrical substation for over 70 years and the potential presence of contaminated soil onsite–** As noted in the summary of the historical use of the subject property, a structure was built on the subject property in 1950 and the electric substation transformers and circuit breakers were noted in the 1953 aerial photograph. The user provided documents indicated some transformer leaks, some repairs, and the replacement of some transformers in 1980 at the subject property. There is a documented attempt to decontaminate the concrete slabs using TCA to wash off the PCB-containing material in 1989. The TCA washing could also have potentially contaminated the soil. In addition, there were some minor stains on the concrete around the transformers observed during the site reconnaissance. The potential presence of contaminated soil as a result of past uses and documented TCA washing onsite is a potential REC.
- **Nearby presence of railroad tracks –** The railroad tracks are located within 50 feet (to the northeast, east and southeast) and up-slope of the subject property. While there is a concrete-lined canal (Riverside Water Company Canal) separating the tracks from the subject property, overflow from major rain events or airborne deposition of emissions could potentially result in contaminants from the railroad operations affecting onsite soils. Railroad ties were historically treated with creosote, and the track beds were historically treated with herbicides for weed management. Therefore, hydrocarbons, metals, herbicides, and SVOCs (creosote, naphthalene) from the railroad activities are potentially present. Due to the railroad tracks' proximity to the subject property and the potential presence of contaminants from the railroad tracks and railroad maintenance, the nearby presence of the railroad tracks is considered a suspect REC.
- **Potential presence of fill onsite –** A difference in existing subject property topography and the most recent topographic map (1980 Riverside West Quadrangle) in the northwestern portion of the subject property was observed during the site reconnaissance. There is a retaining wall along the northern boundary and part of the western boundary of the subject property which elevates the northwestern portion of the subject property approximately four feet above the nearby roadway.

Given these observations the presence of fill material is likely. While there was no evidence observed during the site reconnaissance to suggest that the fill material was impacted, we have no knowledge of the source of the fill material. Therefore the potential presence of fill onsite is considered a potential REC.

- **Application of herbicides for weed management around the perimeter of the subject property** - Mr. Solano of RPU indicated that the RPU applies Roundup weed killer three to four times a year and Oust once a year around the perimeter of the substation. Any weed management that was conducted prior to his employment is unknown. Due to reported herbicide application practices on the property, it is possible herbicides were applied to the subject property as far back as 1950 when the substation was built. Therefore the potential historical and known present-day application of herbicides for weed management onsite is considered a potential REC.
- **Potential presence of lead-based paint (LBP) and asbestos containing material (ACMs) in the onsite structure and potential presence of LBP on the transformers** While the assessment of LBP and ACMs was not part of this work scope, due to the date of construction of the structure and the date of installation of the transformers sometime in the 1950s, the paint on the building components and transformer casings may contain detectable concentrations of lead. In addition, due to the age of the structure (1950), building components potentially could contain ACMs. Because these issues are not part of the ASTM evaluation completed as part of this work program they are not classified as a REC or otherwise. These issues could be a potential concern and would need to be properly addressed prior to any demolition of onsite structures.
- **Presence of 24 lead/acid batteries used on-site –** Although lead/acid batteries contain hazardous chemicals, they appear to be safely contained within the shell of the battery and in good condition as of the date of the site reconnaissance. Therefore, the batteries are considered a de minimis condition per ASTM guidance.
- **Former use of the subject property as an orchard -** The subject property was in use as an orchard from at least 1931 to 1938. Hazardous chemicals including pesticides and herbicides are often used during orchard operations; however, because over 70 years have passed since the property has been in agricultural production, it is unlikely that these hazardous chemicals are present at the subject property at levels that warrant mitigation. In addition, the orchard was replaced with the electric substation around 1950, so the soil was likely graded and mixed prior to construction. Therefore, the former agricultural use of the subject property is considered de minimis.
- **Riverside Plume identified on Geotracker & EDR orphan as a SLIC case at unknown location in Riverside –** Rincon contacted the California SWRCB Santa Ana Region to request a file review of the Riverside Plume site. Rincon received PDF figures from the SWRCB, dated 1994 and 2005, which identified the Riverside Plume as 'Former FMC Facility' and indicated the site was located approximately 1.5 miles to the northeast of the subject property. The figures documented defined PCE, TCE, and 1,1-DCE groundwater plumes below the site. The depth to groundwater was reported to be approximately 100 feet below grade and the direction of groundwater flow was reported to the west-southwest. Based on the distance from

the subject property, the depth to groundwater and its location cross-gradient to the subject property, the Riverside Plume/ FMC site is considered a de minimis condition.

8.0 CONCLUSIONS

Rincon has performed a Phase I ESA in general conformance with the scope and limitations of ASTM E 1527-05 for the property located at 3416 Central Avenue, Riverside, California. This assessment has revealed evidence of one REC and four potential RECs in connection with the subject property which are, respectively:

REC

- Known presence of PCB contaminated soil onsite

Potential RECs

- Past use of the subject property as an electrical substation for over 70 years and the potential presence of contaminated soil onsite
- Potential presence of fill onsite
- Nearby presence of railroad tracks
- Application of herbicides for weed management around the perimeter of the subject property

9.0 RECOMMENDATIONS

To evaluate the potential site impact associated with the REC and potential RECs identified above, we recommend:

REC

- Removal of the contaminated soil and contaminated material with confirmatory sampling analyzing for PCBs, hydrocarbons, metals, and VOCs.

Potential RECs

- Conducting soil sampling of the subject property and analyzing for the potential presence of PCBs, hydrocarbons, metals, and VOCs.
- Conducting soil sampling of the subject property and analyzing for the potential presence of herbicides and pesticides.
- Conducting soil sampling of the subject property and analyzing for the potential presence of hydrocarbons, metals, herbicides, and SVOCs.
- Conducting soil sampling of the subject property and analyzing for the potential presence of herbicides.

While not required by ASTM guidelines and not included as part of this work scope, it is recommended that lead and asbestos surveys be performed prior to the demolition of onsite structures. Sampling and testing would be needed in order to determine the presence of ACMs

and/or LBP and to develop the need for proper mitigation to ensure onsite safety during demolition and compliance with established regulations.

Although considered de minimis per ASTM guidance, we recommend proper removal or disposal of the batteries prior to demolishing the structure and substation.

10.0 DEVIATIONS

The following deviations from ASTM E 1527-05 Practice were encountered during the completion of this Phase I ESA:

- Six gaps of greater than 5 years were identified in the historical records reviewed, however, these gaps are considered insignificant because the land use before and after each data gap appears similar to the surrounding land use.

11.0 REFERENCES

The following published reference materials were used in preparation of this Phase I ESA:

Environmental database: Environmental Data Resources (EDR) report dated June 28, 2013.

Chain of Title: Lawyers Title Insurance Company, Preliminary Title Report for APN 223-150-006 in Riverside, California, October 8, 2009.

Permits: City of Riverside Building and Safety website: http://aquarius.riversideca.gov/permits/DocView.aspx?id=359001&dbid=0

Geology: Jenkins, O.P. and Rogers, T.H. Geologic Map of the Santa Ana Quadrangle, State of California, Resource Agency, Department of Conservation, 1965.

Groundwater: RWQCB online database (GeoTracker).

Topography: USGS topographic map (1980, Riverside West Quadrangle) received July 1, 2013.

Oil and gas records: State of California, Division of Oil, Gas and Geothermal Resources website: http://maps.conservation.ca.gov/doms/index.html. July 8th 2013.

Aerial photographs: Photos maintained by EDR, received July 3, 2013.

Fire insurance maps: EDR search conducted on June 28, 2013, no Sanborn Maps coverage.

City directory listings: Listings provided by EDR, received June 28, 2013.

Historic topographic maps: Maps maintained by EDR, received July 1, 2013.

Other Environmental Documents:

Various documents regarding PCBs at several Riverside Substations dated from1968 to 1996 consolidated into files identified as:

- *X-78-1 - Industrial _ Magnolia _ Casa Blanca - Replace Leaking Askarel CTP's.pdf*
- *X-90-1 - Industrial _ Magnolia _ Casa Blanca _ Plaza _ University - PCB Remediation.pdf*
- *G-2947 - Casa Blanca _ Industrial _ Magnolia _ Plaza - PCB Remediation.pdf*

City of Riverside (A), *Remediation Plan for Electrical Substations (Magnolia, Casa Blanca, Industrial, Plaza, and University) Due To Polychlorinated Biphenyl Contamination*, September 1990

City of Riverside (B), Board of Public Utilities, *Memo: Remediation of Substation Facilities*, November 2, 1990.

Power Engineers, Inc., *Final Spill Prevention, Control, and Countermeasure Plan for the City of Riverside, Riverside Public Utilities*, October 22, 2012

12.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The qualified environmental professionals that are responsible for preparing the report include Carly Gagen-Cheeney, Julie Welch Marshall, and Michael P. Gialketsis. Their qualifications are summarized in the following section.

"We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 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 appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

Signature	September 10, 2013 Date
Michael P. Gialketsis Name	President Title

Signature	September 10, 2013 Date
Julie Welch Marshall Name	Senior Associate Title

Signature	September 10, 2013 Date
Carly Gagen-Cheeney, PE Name	Environmental Engineer Title

13.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

The environmental professionals responsible for conducting this Phase I ESA and preparing the report include Carly Gagen-Cheeney, Julie Welch Marshall, and Michael P. Gialketsis. Their qualifications are summarized below.

Environmental Professional Qualifications	X2.1.1 (2) (i) - Professional Engineer or Professional Geologist License or Registration, and 3 years of full-time relevant experience	X2.1.1 (2) (ii) - Licensed or certified by the Federal Government, State, Tribe, or U.S. Territory to perform environmental inquiries	X2.1.1 (2) (iii) – Baccalaureate or Higher Degree from and accredited institution of higher education in a discipline of engineering or science and the equivalent of 5 years of full-time relevant experience	X2.1.1 (2) (iii) – Equivalent of 10 years of full-time relevant experience
Michael P. Gialketsis			BA Environmental Studies	30 years
Julie Welch Marshall			BS Environmental Engineering	17 years
Carly Gagen-Cheeney	PE		BS Biological Systems Engineering	8 years

Michael P. Gialketsis is a Principal with Rincon Consultants, Inc. He holds a Bachelor of Arts degree in Environmental Studies from the University of California, Santa Barbara. He has over 30 years of experience as a project manager and environmental analyst for a broad range of environmental site assessment and impact evaluation programs, as well as large-scale permitting and environmental compliance monitoring programs. Mr. Gialketsis has a strong multi-disciplinary background and has been responsible for preparation of several hundred environmental site assessment and other studies within California.

Julie Welch Marshall is a Senior Project Manager with Rincon Consultants. She holds a Bachelor of Science degree in environmental engineering from Rensselaer Polytechnic Institute, Troy, New York, a Hazardous Materials Management Certificate from the University of California, Santa Barbara Extension program, and a Business Management Certificate from the University of California, San Diego Extension program. Ms. Marshall's responsibilities at Rincon include implementation of site assessments and development of site remediation programs within the Environmental Site Assessment and Remediation Group. Ms. Marshall has extensive experience performing Phase I and Phase II Environmental Site Assessments as well as Preliminary Endangerment Assessments. She has seventeen years of experience conducting research, assessment and remediation projects in California.

Carly Gagen-Cheeney is an environmental engineer with Rincon Consultants. She holds a Bachelor of Science degree in biological systems engineering from Virginia Polytechnic & State University (Virginia Tech), Blacksburg, VA. She has over eight years of experience in environmental surveys and geotechnical investigations and has conducted many Phase I and Phase II Environmental Site Assessments throughout Virginia, Maryland, West Virginia,

Washington, DC and California. Ms. Gagen-Cheeney is a Professional Engineer in Civil Engineering with the State of California (#C81636) and the Commonwealth of Virginia (#046526).

This page intentionally left blank.

Imagery provided by National Geographic Society, ESRI and its licensors © 2013. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

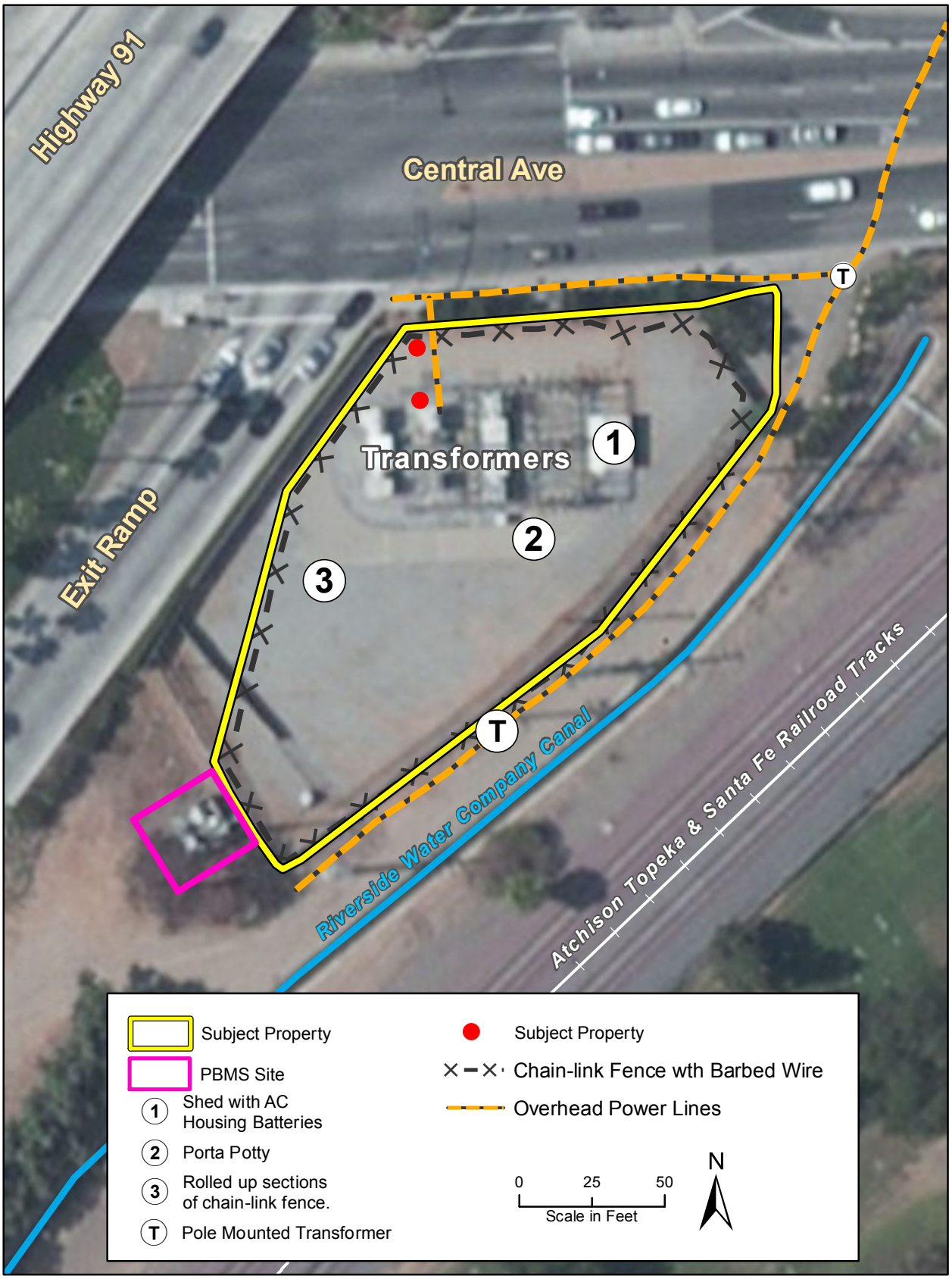
0 750 1,500 Feet

N

Subject Property

Vicinity Map

Figure 1



Imagery provided by ESRI and its licensors © 2013.

Site Map

Figure 2

Imagery provided by ESRI and its licensors © 2013.

Adjacent Land Use Map

Figure 3

Photograph 1. View of the rolled-up fence section, transformers, and porta-potty on the subject property, facing northeast.

Photograph 2. View of the one-story structure on the subject property and the adjacent overhead utility lines, facing south.

Photograph 3. View of the vault #76 vent and transformers in western portion of the subject property, facing southwest.

Photograph 4. View of the 'Non-PCB' sticker on circuit-breaker 52-5 (34-13).

Photograph 5. View of the A/C unit attached to the structure, circuit-breaker 52-4 and the transformers, facing northwest.

Photograph 6. View of the cell tower site and Highway 91 exit ramp near southwestern corner of the subject property, facing west-southwest.

Site Photographs

Figure 4

Photograph 7. View of the pole-mounted transformer adjacent to the east of the subject property, facing southeast.

Photograph 8. View of the 24 lead/acid batteries inside the one-story structure.

Photograph 9. View of Riverside Water Company Canal berm, Central Ave Self Storage and Central Avenue, facing north.

Photograph 10. View of the fenced-in Riverside Water Company property and the railroad tracks, facing east-southeast.

Photograph 11. View of Olivewood Cemetery Memorial Park, facing west toward railroad tracks.

Photograph 12. View from Olivewood Cemetery of the commercial office space adjacent to the east of the storage facility, facing north toward Pachappa Hill.

Site Photographs

Figure 5

Appendix 1

Interview Documentation

FOR INFORMATION ONLY

Property Owner Questionnaire

Rincon Project 12-00409 – Magnolia Substation, 3416 Central Avenue, Riverside, CA

JUL 19 2013

This questionnaire should be completed by the current property owner or a designated representative of the current property owner. We respectfully request that you fill out and return this form (via fax 760-918-9449 or email CGagenCheeney@RinconConsultants.com) to us within one week from the date of this transmittal.

1)a	**Was the subject property ever used as:** ❑ a gasoline or other fueling station ❑ a motor vehicle repair facility ❑ a commercial printing facility ❑ a dry cleaners ❑ a photo developing laboratory ❑ a metal plating facility ❑ a farm ❑ a junkyard or landfill ❑ a waste treatment, storage, disposal, processing or recycling facility ❑ a machine shop ❑ a manufacturing facility ❑ an oil production facility (including oil wells) ❑ any other industrial use (please check all that apply and describe) To the best of my knowledge,none of the above apply
1)b	**Was the adjoining properties ever used as:** ❑ a gasoline or other fueling station ❑ a motor vehicle repair facility ❑ a commercial printing facility ❑ a dry cleaners ❑ a photo developing laboratory ❑ a metal plating facility ❑ a farm ❑ a junkyard or landfill ❑ a waste treatment, storage, disposal, processing or recycling facility ❑ a machine shop ❑ a manufacturing facility ❑ an oil production facility (including oil wells) ❑ any other industrial use (please check all that apply and describe) To the best of my knowledge,none of the above apply

2)	**Please describe the current land uses of the subject property and those surrounding your property. Please indicate all businesses/companies located on property.**	
2a	**Current use of Subject Property** (please check all that apply) ❑ Commercial (retail, offices, etc.) ❑ Residential (single family or apartments) ❑ Industrial (manufacturing, warehousing, processing) ☒ Other-Please Describe	(please include a brief description of current operation) Power distribution
2b	**Current use of Northern Adjoining Properties** (please check all that apply) ❑ Commercial (retail, offices, etc.) ❑ Residential (single family or apartments) ❑ Industrial (manufacturing, warehousing, processing) ☒ Other-Please Describe	(please include a brief description of current operation) Street Right of Way (Central Avenue)
2c	**Current use of Southern Adjoining Properties** (please check all that apply) ❑ Commercial (retail, offices, etc.) ❑ Residential (single family or apartments) ❑ Industrial (manufacturing, warehousing, processing)	(please include a brief description of current operation) State Highway 91 and Riverside Water Canal

	☒ Other-Please Describe	
2d	**Current use of Western Adjoining Properties** (please check all that apply) ☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☐ Industrial (manufacturing, warehousing, processing) ☒ Other-Please Describe	(please include a brief description of current operation) State Highway 91
2e	**Current use of Eastern Adjoining Properties** (please check all that apply) ☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☐ Industrial (manufacturing, warehousing, processing) ☒ Other-Please Describe	(please include a brief description of current operation) Riverside Water Company Canal

3)	**Please describe the previous land uses of your property and those surrounding your property. Include property ownership and dates of operation if known.**	
3a	**Previous use of Subject Property** (please check all that apply) ☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☐ Industrial (manufacturing, warehousing, processing) ☒ Other-Please Describe	(please include a brief description of previous operations, former property owners, and dates of operation) According to 1938 aerial photographs, the land was vacant and was purchased as vacant land by the City of Riverside in 1949
3b	**Previous use of Northern Adjoining Properties** (please check all that apply) ☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☐ Industrial (manufacturing, warehousing, processing) ☒ Other-Please Describe	(please include a brief description of previous operations) Vacant land
3c	**Previous use of Southern Adjoining Properties** (please check all that apply) ☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☐ Industrial (manufacturing, warehousing, processing) ☒ Other-Please Describe	(please include a brief description of previous operations) Vacant land and Riverside Water Company Canal
3d	**Previous use of Western Adjoining Properties** (please check all that apply) ☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☐ Industrial (manufacturing, warehousing, processing) ☒ Other-Please Describe	(please include a brief description of previous operations) According to 1938 aerial photographs, the land was vacant and was purchased as vacant land by the City of Riverside in 1949. Signor has no information regarding adjacent parcels
3e	**Previous use of Eastern Adjoining Properties** (please check all that apply) ☐ Commercial (retail, offices, etc.) ☐ Residential (single family or apartments) ☐ Industrial (manufacturing, warehousing, processing) ☒ Other-Please Describe	(please include a brief description of previous operations) According to 1938 aerial photographs indicate that property to the east was a cemetary. Signor has no information regarding adjacent parcels

4)	**Who is the current owner of the subject property?**	City of Riverside

5)	**When did current ownership begin?**	July 29, 1949

6)	**What is the age of the on-site facility?**	63 years old

7)	**Who is the previous owner of the property?**	Robert Van Eck and Margareth H. Van Eck

8)	**Please indicate the property's current**	
	electrical service provider -	City of Riverside
	water service provider -	N/A
	natural gas service provider -	N/A
	sewer service provider -	N/A
	solid waste hauler -	N/A

9)	**To the best of your knowledge, has your facility previously or does your facility currently store or use any of the following in individual containers larger than 5 gallons in volume or 50 gallons in the aggregate?** (if yes or unknown, include how many, type, and size)	
	☐ ***Damaged or discarded automotive or industrial batteries***	NO
	☐ ***Pesticides***	NO
	☐ ***Paints***	NO
	☒ ***Oils or solvents***	The substation equipment has the capacity to store and use 8,463 gallons of insulating oil. This was not answered by signor
	☐ ***Motor vehicle fuel***	NO
	☐ ***Pesticides or Herbicides***	NO
	☐ ***Other Chemicals or hazardous substances***	NO

10)	**Please indicate any wastes generated at the facility.**		
	Hazardous waste:	**Quantity:**	**Disposal Method:**
	N/A		

11)	**Are there currently or to the best of your knowledge have there been previously, any industrial drums (typically 55 gallon) or sacks of chemicals located on the property or at the facility?**	
	☐ Yes ☒ No ☐ Unknown	if Yes or Unknown, please describe

12)	**Are there currently or to the best of your knowledge have there been previously, any evidence of fill dirt having been brought onto the property that originated from a contaminated site or that is of an unknown origin?**	
	☐ Yes ☒ No ☐ Unknown	if Yes or Unknown, please describe

13)	**Are there currently or to the best of your knowledge have there been previously, any pits, ponds or lagoons located on the property in connection with waste treatment or waste disposal?**	
	☐ Yes ☒ No ☐ Unknown	if Yes or Unknown, please describe

14)	**Are there currently or to the best of your knowledge have there been previously, any sumps, clarifiers, or solvent degreasers on the property?**	
	☐ Yes ☒ No ☐ Unknown	if Yes or Unknown, please describe

15)	**Are there currently or to the best of your knowledge have there been previously, any stained soil on the property?**	
	☒ Yes ☐ No ☐ Unknown	if Yes or Unknown, please describe Limited contaminated soil due to previous equipment containing PCB.

16)	**Are there currently or to the best of your knowledge have there been previously, any storage tanks (above or below ground) located on the property?**	
	☐ Yes ☒ No ☐ Unknown	if Yes or Unknown, please describe

JUL 19 2013

17)	**Are there currently or to the best of your knowledge have there been previously, any vent pipes, fill pipes, or access ways (etc.) indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?**	
	☐ Yes ☒ No ☐ Unknown	if Yes or Unknown, please describe

18)	**If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government agency?**	
	☐ Yes ☒ No ☐ Unknown	if Yes or Unknown, please describe

19)	**Are there currently or to the best of your knowledge have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water, or are emitting foul odors?**	
	☐ Yes ☒ No ☐ Unknown	if Yes or Unknown, please describe

20)	**To the best of your knowledge has your facility previously or does your facility currently, discharge wastewater on or adjacent to the property other than storm water into a sanitary sewer system?**	
	☐ Yes ☒ No ☐ Unknown	if Yes or Unknown, please describe

21)	**Have any of the following ever been dumped above grade, buried and/or burned on the property?** (please check all that apply and describe if possible)	
	☐ hazardous substances	
	☐ petroleum products	
	☐ unidentified waste materials	
	☐ tires	
	☐ automotive or industrial batteries	
	☐ other waste materials (please describe)	

JUL 19 2013

22)	**Are there currently or to the best of your knowledge have there been previously, a transformer, capacitor or any hydraulic equipment on the property?**	
	☒ Yes ☐ No ☐ Unknown	if Yes or Unknown, please describe (6) Six transformers at 2.3 MVA capacity each are currently present. This was not answered by signor

23)	**Are there currently or to the best of your knowledge have there been previously any records indicating the presence of PCBs?**	
	☒ Yes ☐ No ☐ Unknown	if Yes or Unknown, please describe Limited levels of PCB were found in the late 1980's due to maintenance on previous equipment containing PCB. This was not answered by signor

24)	**Are there currently or to the best of your knowledge have there been previously any records indicating the presence of pesticides or herbicides?**	
	☐ Yes ☒ No ☐ Unknown	if Yes or Unknown, please describe

25)	**Do your have any environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?**	
	☐ Yes ☐ No ☒ Unknown	if Yes or Unknown, please describe The extent of information related to this subject is unknown. Moreover, availability of historical records for this site is restricted but could be available upon request. This question was not answered by signor.

26)	**Have you been informed of the past or current existence of hazardous substances, petroleum products, or environmental violations with respect to the property or any facility located on the property?**	
	☐ Yes ☐ No ☒ Unknown	if Yes or Unknown, please describe The extent of information related to this subject is unknown. Moreover, availability of historical records for this site is restricted but could be available upon request. This question was not answered by signor.

27)	**Do you have any knowledge of any environmental site assessments of the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property or recommended further assessment of the property?**	
	☐ Yes ☐ No ☒ Unknown	if Yes or Unknown, please describe The extent of information related to this subject is unknown. Moreover, availability of historical records for this site is restricted but could be available upon request. This question was not answered by signor.

JUL 19 2013

28)	**Do you know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release of any hazardous substances or petroleum products involving the property by any owner or occupant of the property?**	
	☐ Yes ☒ No ☐ Unknown	if Yes or Unknown, please describe

This questionnaire was completed by (please print)	
Name	Irene Martinez
Title	Utilities Real Property Agent
Firm	City of Riverside
Street Address	3750 University Avenue
City, State, Zip Code	Riverside, CA 92501
Phone Number	951-826-8512
Fax Number	951-826-2450
What is the Preparer's relationship to the property (i.e., owner, occupant, property manager, employee, agent, consultant, etc.) ?	Real Property Agent responsible for property deeds and title reports

Copies of the completed questionnaire should be emailed (preferably), faxed or mailed to:

Attention: Carly Gagen-Cheeney

Rincon Consultants, Inc.
5135 Avenida Encinas, Suite A
Carlsbad, California 92008

CGagenCheeney@RinconConsultants.com

Fax: (760) 918-9449

Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and to the best of the preparer's knowledge no material facts have been suppressed or misstated.

Signature _____ **Date** July 18, 2013

Appendix 2

Building Permits and Title Report

ORIGINAL

APPLICATION FOR

1 BUILDING 1

Department of Building, City of Riverside, California

LOCATION OF JOB

3416 Central Ave

NUMBER Permit No. 10474 STREET Final Insp. 7-2-50

LEGAL DESCRIPTION—(DO NOT FILL IN)

Lot No.... Map No....

Block.... Tract....

Building used for Central Heaven

No. of Bldgs. Now on Lot	No. of Families	Use of Bldgs. Now on Lot

Size of Lot	Size Bldg.	Sq. Ft.	Fire District
acreage	8 X 16		H 2

No. of Rooms	Stories	Group	Type	Zone
				A-2

L. S. Prop. Line Set Back House	Garage	Front Prop. Line Set Back House	Garage	R. S. Prop. Line Set Back House	Garage
		60'			

Owner
Name City Light Dept
Address 3850 Mulberry

Arch
Name....
Address....

Contractor
Name Owner
Address....
License No.: City.... State....

Special Permit No....

Footing Size	8 X 16'	Depth in Ground	
Pier Size	6" Slab	Depth in Ground	

Access Hole Metal Frame Within 5 ft. of Corner, 24 x 18 inches..

6 x 8 Metal Vent Over Range 36 sq. in. Continuous Through Roof

Exterior Walls Aluminum	Min. Clg. Height....
Size of Studs Steel	Clg. Joist....
Joists 1st Floor....	Rafters....
Joists 2nd Floor....	Material of Roof Aluminum

Chimney or Fireplace Brick Lined with Terra Cotta or Firebrick

Depth Footing in Ground 2 ft..... Size 6" Larger on all sides.....

Date Permit Granted 2/2/50

Total Value 200 00 Fee Exempt

Including labor, material, wiring, heating, plumbing, etc.

OVER

Ventilation 2 sq. ft. for each 25 li. ft. First vent within 5 ft. of corner

For Office Records Only (Do Not Fill In)

Approved:

Exterior
- Wire.....Con. Blk.....
- Scratch.....Wood Sdg.....
- Brown.....Bond Beam.....
- Finish.....
- Final.....

Interior Plaster
- Lath.....Plaster Bd.....
- Scratch.....
- Brown.....
- Finish.....
- Final.....

DATE OF INSPECTION

Excavation.....Frame.....
Forms.....Strong Back.....
Concrete.....Room Ventilation.....
Foundation Vents.....Range Vent.....
Size of R. W. Sill.....Bath Room Vent.....
Bolts.....Garage Vent.....
Service Hole.....Garage Fireproofing.....
Reinforcing Steel.....Shower Stall.....
Roofing Tile.....Water Heater Location.....
Composition.....Fireplace.....
Shingles.....Chimney Lining.....
Signs.....Fences.....
Galv. Iron.....Occupancy Cert. No.....

Foundation Ventilation 2 square feet for every 25 lineal feet.

I hereby acknowledge that I have read this application and state that the above is correct and agree to comply with all City Ordinances and State Laws regulating Building Construction.
Signature of

Owner
Authorized Agent.....

CORRECTIONS

Lawyers Title Company
3480 Vine Street Suite 100
Riverside, CA 92507
Phone: (951) 774-0825
Fax: ( )

City of Riverside/Public Utilities Resources
3435 14th Street
Riverside, CA 92501

Attn: Irene Martinez

Title Officer: Lori Northcutt--LT
email: tu67@fnf.com
Phone No.:
Fax No.:
File No.: 69671708

Your Reference No:

Property Address: Riverside, California

PRELIMINARY REPORT

Dated as of October 8, 2009 at 7:30 a.m.

In response to the above referenced application for a policy of title insurance, Lawyers Title - IE 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 B 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 B. 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 B 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.

SCHEDULE A

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

ALTA Owners 2006
ALTA Loan 2006

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

A FEE

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

City of Riverside, a Municipal Corporation

The land referred to herein is situated in the County of Riverside, State of California, and is described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

EXHIBIT "A"

All that certain real property situated in the County of Riverside, State of California, described as follows:

All that portion of the Northwest Quarter of the Southwest Quarter of Fractional Section 35 in Township 2 South, Range 5 West, San Bernardino Base and Meridian, in the City of Riverside, County of Riverside, State of California, as shown by U.S. Government Survey, particularly described as follows:

Commencing at a point in the center line of Central Avenue, 90.86 feet Westerly from its intersection with the center line of Olivewood Avenue;
Thence South 10°18' West, 26.12 feet to the Southerly line of Central Avenue, fro the point of beginning;
Thence continuing South 16°18' West, 20.32 feet;
Thence South 27°10' West 28.51 feet;
Thence South 40°40' West 93.38 feet;
Thence Southwesterly on a curve concave to the Northwest having a radius of 242.2 feet and a central angle of 11°23'30" a distance of 48.10 feet;
Thence South 32°03'30" West 126.23 feet;
Thence South 89°20' West 41.47 feet to the West line of said Section 35;
Thence North on said West line 0°40' West 224.12 feet to the Southerly line of Central Avenue;
Thence North 89°27' East, 263.47 feet to the point of beginning.

Except therefrom that portion of said land conveyed to the State of California more particularly described in that certain document recorded August 9, 1955 as Instrument No. 58538 in Book 1791, Page 382 of Official Records.

Also except therefrom that portion of said land conveyed to the State of California, more particularly described in that certain document recorded May 11, 1998 as Instrument No. 184177 of Official Records.

Assessor's Parcel Number: 223-150-006

SCHEDULE B – Section A

The following exceptions will appear in policies when providing standard coverage as outlined below:

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 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.

SCHEDULE B – Section B

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

A. No taxes are due or payable at this time. Said Property is currently owned by a Governmental Agency.

B. Supplemental or escaped assessments of property taxes, if any, assessed pursuant to the Revenue and Taxation Code of the State of California.

1. Water rights, claims or title to water, whether or not shown by the public records.

2. An easement in favor of the public over any existing roads lying within said land.

3. An easement over said land for water ditches, pipes, or flumes that may be required for the irrigation and other purposes of the Riverside Water Company, as reserved in deeds

To:	Riverside Water Company and the Riverside Canal Company
Recorded	April 26, 1882 in Book 28, page 635 and August 14, 1885 in Book 42, pages 294 and 296 of Deeds, Records of San Bernardino County

4. Any boundary discrepancies, rights or claims which may exist or arise as disclosed by a Record of Survey

Recorded	in Book 18, Page 19 Record of Surveys

5. The fact that the ownership of said land does not include rights of access to or from the street or highway known as Highway 91, abutting said land, such rights having been severed from said land by the document

Recorded:	August 9, 1955 as Instrument No. 58538 of Official Records

6. A waiver of any claims for damages to said land by reason of the location of a freeway or highway contiguous thereto as contained in a document

In Favor of:	State of California
Recorded:	August 9, 1955 as Instrument No. 58538 of Official Records

7. An irrevocable offer to dedicate a portion of said land for the purposes stated herein.

In favor of:	City of Riverside
For:	central avenue grade crossing
Recorded:	October 16, 1958 in Book 2349, Page 314 of Official Records
Affects:	Said land more particularly described therein

Reference is made to said document for full particulars.

8. A document subject to all the terms, provisions and conditions therein contained.

Entitled:	Easement
Dated:	January 13, 1959
By and between:	The Atchison, Topeka and Santa Fe Railway Company, a Kansas Corporation
Recorded:	January 14, 1960 as Instrument No. 3405, in Book 2615, Page 577 of Official Records

Reference is made to said document for full particulars.

9. The matters contained in a document entitled **"Resolution No. F91-21"** recorded June 10, 1991 as Instrument No. 193749 of Official Records.

Reference is made to said document for full particulars.

10. The fact that the ownership of said land does not include rights of access to or from the street or highway abutting said land, such rights having been severed from said land by the document

Recorded:	May 11, 1998 as Instrument No. 184177 of Official Records

11. Title search discloses no open deeds of trust. Please confirm prior to close of escrow.

12. Matters which may be disclosed by an inspection or by a survey of said land that is satisfactory to this Company, or by inquiry of the parties in possession thereof.

13. Any rights, interests or claims of the parties in possession of said land, including but not limited to those based on an unrecorded agreement, contract or lease.

This Company will require that a full copy of any unrecorded agreement, contract or lease be submitted to us, together with all supplements, assignments and amendments, before any policy of title insurance will be issued.

14. Any easements not disclosed by those public records which impart constructive notice and which are not visible and apparent from an inspection of the surface of said land.

15. 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.

END OF SCHEDULE B EXCEPTIONS

PLEASE REFER TO THE "NOTES AND REQUIREMENTS SECTION" WHICH FOLLOWS FOR INFORMATION NECESSARY TO COMPLETE THIS TRANSACTION

REQUIREMENTS SECTION:

Req. No. 1: The Company will require a statement of information from the parties named below in order to complete this report, based on the effect of documents, proceedings, liens, decrees, or other matters which do not specifically describe said land, but which, if any do exist, may affect the title or impose liens or encumbrances thereon.

Parties: Buyers and/or Sellers

Req. No. 2: The Company will require a certified copy of the Resolution of the Board of Directors of the following corporation authorizing the transaction for which this Preliminary Report was ordered.

Corporation: City of Riverside, a Municipal Corporation

INFORMATIONAL NOTES SECTION

Note No. 1: The information on the attached plat is provided for your convenience as a guide to the general location of the subject property. The accuracy of this plat is not guaranteed, nor is it a part of any policy, report or guarantee to which it may be attached.

Note No. 2: California insurance code section 12413.1 regulates the disbursement of escrow and sub-escrow funds by title companies. The law requires that funds be deposited in the title company escrow account and available for withdrawal prior to disbursement. Funds deposited with the company by wire transfer may be disbursed upon receipt. Funds deposited with the company via cashier's check or teller's check drawn on a California based bank may be disbursed on the next business day after the day of deposit. If funds are deposited with the company by other methods, recording and/or disbursement may be delayed. All escrow and sub-escrow funds received by the company will be deposited with other escrow funds in one or more non-interest bearing escrow accounts of the company in a financial institution selected by the company. The company may receive certain direct or indirect benefits from the financial institution by reason of the deposit of such funds or the maintenance of such accounts with such financial institution, and the company shall have no obligation to account to the depositing party in any manner for the value of, or to pay to such party, any benefit received by the company. Those benefits may include, without limitation, credits allowed by such financial institution on loans to the company or its parent company and earnings on investments made with the proceeds of such loans, accounting, reporting and other services and products of such financial institution. Such benefits shall be deemed additional compensation of the company for its services in connection with the escrow or sub-escrow.

WIRING INSTRUCTIONS FOR THIS OFFICE ARE:

Union Bank
1980 Saturn Street, V03-012
Monterey Park, CA 91755
(800) 849-6466
ABA # 122000496
CREDIT TO: Lawyers Title - IE
ACCOUNT #: 9101081413

RE: 69671708

PLEASE INDICATE Lawyers Title - IE TITLE ORDER NUMBER

Note No. 3: The charges which the company will make for next day messenger services (i.e. Federal Express, UPS, DHL, Airborne, Express mail, etc.) are $15.00 per letter, standard overnight service, and $25.00 for larger size packages and/or priority delivery services. Such charges include the cost of such messenger service and the company's expenses for arranging such messenger service and its overhead and profit. Special messenger services will be billed at the cost of such services. There will be no additional charge for pick-up or delivery of packages via the company's regularly scheduled messenger runs.

Note No. 4: THIS COMPANY REQUIRES CURRENT BENEFICIARY DEMANDS PRIOR TO CLOSING. If the demand is expired and a current demand cannot be obtained, our requirements will be as follows:

(a) If this Company accepts a verbal update on the demand, we may hold an amount equal to one monthly mortgage payment. This hold will be in addition to the verbal hold the lender may have stipulated.

(b) If this Company cannot obtain a verbal update on the demand, we will either pay off the expired demand, or wait for the amended demand, at our discretion.

(c) All payoff figures are verified at closing. If the customer's last payment was made within 15 days of closing, our Payoff Department may hold one month's payment to insure check has cleared the bank (unless a copy of the cancelled check is provided, in which case there will be no hold).

Note No. 5: There are no conveyances affecting said land recorded within 24 months of the date of this report.

Processor: cph
Date Typed: November 1, 2009

Exhibit B (Revised 11-17-06)

CALIFORNIA LAND TITLE ASSOCIATION
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, which are 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.

CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE (10/22/03)
ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE

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 any law or government regulation. This includes ordinances, laws and regulations concerning:
   a. building
   b. zoning
   c. Land use
   d. improvements on the Land
   e. Land division
   f. environmental protection
   This Exclusion does not apply to violations or the enforcement of these matters if notice of the violation or enforcement appears in the Public Records at the Policy Date.
   This Exclusion does not limit the coverage described in Covered Risk 14, 15, 16, 17 or 24.
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 apply to violations of building codes if notice of the violation appears in the Public Records at the Policy Date.
3. The right to take the Land by condemning it, unless:
   a. a notice of exercising the right appears in the Public Records at the Policy Date; or
   b. the taking happened before the Policy Date and is binding on You if You bought the Land without Knowing of the taking.
4. Risks:
   a. that are created, allowed, or agreed to by You, whether or not they appear in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they appear 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.d, 22, 23, 24 or 25.
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 18.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:
- For Covered Risk 14, 15, 16 and 18, 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:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 14:	**1% of Policy Amount or $2,500** (whichever is less)	**$10,000**
Covered Risk 15:	**1% of Policy Amount or $5,000** (whichever is less)	**$25,000**
Covered Risk 16:	**1% of Policy Amount or $5,000** (whichever is less)	**$25,000**
Covered Risk 18:	**1% of Policy Amount or $2,500** (whichever is less)	**$5,000**

AMERICAN LAND TITLE ASSOCIATION RESIDENTIAL TITLE INSURANCE POLICY (6-1-87)

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 any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning:
   - land use
   - improvements on the land
   - land division
   - environmental protection

   This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at Policy Date.
   This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.
2. The right to take the land by condemning it, unless:
   - a notice of exercising the right appears in the public records on the Policy Date
   - the taking happened prior to the Policy Date and is binding on you if you bought the land without knowing of the taking
3. Title Risks:
   - that are created, allowed, or agreed to by you
   - that are known to you, but not to us, on the Policy Date -- unless they appeared in the public records
   - that result in no loss to you
   - that first affect your title after the Policy Date -- this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks
4. Failure to pay value for your title.
5. Lack of a right:
   - to any land outside the area specifically described and referred to in Item 3 of Schedule A
     OR
   - in streets, alleys, or waterways that touch your land

   This exclusion does not limit the access coverage in Item 5 of Covered Title Risks.

AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (10-17-92) WITH ALTA ENDORSEMENT-FORM 1 COVERAGE

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 and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (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 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.

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) 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 (except to the extent that this policy insures the priority of the lien of the insured mortgage over any statutory lien for services, labor or material or to the extent insurance is afforded herein as to assessments for street improvements under construction or completed at 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.
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 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 statutory lien for services, labor or materials (or the claim of priority of any statutory lien for services, labor or materials over the lien of the insured mortgage) arising from an improvement or work related to the land which is contracted for and commenced subsequent to Date of Policy and is not financed in whole or in part by proceeds of the indebtedness secured by the insured mortgage which at Date of Policy the insured has advanced or is obligated to advance.
7. Any claim, which arises out of the transaction creating the interest of the mortgagee insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
   (i) the transaction creating the interest of the insured mortgagee being deemed a fraudulent conveyance or fraudulent transfer; or
   (ii) the subordination of the interest of the insured mortgagee as a result of the application of the doctrine or equitable subordination; or
   (iii) the transaction creating the interest of the insured mortgagee being deemed a preferential transfer except where the preferential transfer results from the failure:
      (a) to timely record the instrument of transfer; or
      (b) of such recordation to impart notice to a purchaser for value or a judgment or lien creditor.

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 General Exceptions:

EXCEPTIONS FROM COVERAGE

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, which are 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.

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

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:

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.

AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (10-17-92)
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 and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (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 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.
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) 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 estate or interest insured by this policy.
4. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
   (i) the transaction creating the estate or interest insured by this policy being deemed a fraudulent conveyance or fraudulent transfer; or
   (ii) the transaction creating the estate or interest insured by this policy being deemed a preferential transfer except where the preferential transfer results from the failure:

(a) to timely record the instrument of transfer; or
(b) of such recordation to impart notice to a purchaser for value or a judgment or lien creditor.

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 General Exceptions:

EXCEPTIONS FROM COVERAGE

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, which are 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.

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 and 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:

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.

File No: 69671708

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (10/13/01)
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 and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (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 areas 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 s 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. This exclusion does not limit the coverage provided under Covered Risks 12, 13, 14, and 16 of this policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise 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. This exclusion does not limit the coverage provided under Covered Risks 12, 13, 14, and 16 of this 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) 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 (this paragraph does not limit the coverage provided under Covered Risks 8, 16, 18, 19, 20, 21, 22, 23, 24, 25 and 26); or
   (e) resulting in loss or damage which 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 the Insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with 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, except as provided in Covered Risk 27, or any consumer credit protection or truth in lending law.
6. Real property taxes or assessments of any governmental authority which become a lien on the Land subsequent to Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 7, 8(e) and 26.
7. 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 limit the coverage provided in Covered Risk 8.
8. Lack of priority of the lien of the Insured Mortgage as to each and every advance made after Date of Policy, and all interest charged thereon, over liens, encumbrances and other matters affecting the title, the existence of which are Known to the Insured at:
   (a) The time of the advance; or
   (b) The time a modification is made to the terms of the Insured Mortgage which changes the rate of interest charged, if the rate of Interest is greater as a result of the modification than it would have been before the modification. This exclusion does not limit the coverage provided in Covered Risk 8.
9. The failure of the residential structure, or any portion thereof to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This exclusion does not apply to violations of building codes if notice of the violation appears in the Public Records at Date of Policy.

Note No. 6:

Note No. 7: Lawyers Title Company
Note No. 8: 3480 Vine Street Suite 100
Note No. 9: Riverside, CA 92507
Note No. 10: Phone: (951) 774-0825
Note No. 11: Fax: ( )

Order No. 69671708

Notice of Available Discounts

Pursuant to Section 2355.3 in Title 10 of the California Code of Regulations Fidelity National Financial, Inc. and its subsidiaries ("FNF") must deliver a notice of each discount available under our current rate filing along with the delivery of escrow instructions, a preliminary report or commitment. Please be aware that the provision of this notice does not constitute a waiver of the consumer's right to be charged the filed rate. As such, your transaction may not qualify for the below discounts.

You are encouraged to discuss the applicability of one or more of the below discounts with a Company representative. These discounts are generally described below; consult the rate manual for a full description of the terms, conditions and requirements for such discount. These discounts only apply to transactions involving services rendered by the FNF Family of Companies. This notice only applies to transactions involving property improved with a one-to-four family residential dwelling.

FNF Underwritten Title Company
LTC – Lawyers Title Company

FNF Underwriter
LTIC – Lawyers Title Insurance Corp.

Available Discounts

FEE REDUCTION SETTLEMENT PROGRAM (LTC and LTIC)
Eligible customers shall receive a $20.00 reduction in their title and/or escrow fees charged by the Company for each eligible transaction in accordance with the terms of the Final Judgments entered in The People of the State of California.

DISASTER LOANS (LTIC)
The charge for a Lender's Policy (Standard or Extended coverage) covering the financing or refinancing by an owner of record, within 24 months of the date of a declaration of a disaster area by the government of the United States or the State of California on any land located in said area, which was partially or totally destroyed in the disaster, will be 50% of the appropriate title insurance rate.

SHORT TERM RATE (LTIC)
If there is an insured owner and an order for title insurance is placed within sixty (60) months following the effective date of any prior policy of any title insurer, the charge will be 80% of the appropriate title insurance rate.

EMPLOYEE RATE (LTC and LTIC)
No charge shall be made to employees (including employees on approved retirement) of the Company or its underwritten, subsidiary or affiliated title companies for policies or escrow services in connection with financing, refinancing, sale or purchase of the employees' bona fide home property. Waiver of such charges is authorized only in connection with those costs which the employee would be obligated to pay, by established custom, as a party to the transaction.

Note No. 12:

Note No. 13: Lawyers Title Company
Note No. 14: 3480 Vine Street Suite 100
Note No. 15: Riverside, CA 92507
Note No. 16: Phone: (951) 774-0825
Note No. 17: Fax: ( )

Order No: 69671708-LTIE

"Notice to Customers"

(**I**nvolves **R**esidential **R**eal **P**roperty in **C**alifornia **ONLY**)

You may be entitled to receive a $20.00 discount on escrow services if you purchased, sold or refinanced residential property in California between May 19, 1995 and November 1, 2002. If you had more than one qualifying transaction, you may be entitled to multiple discounts.

If your previous transaction involved the same property that is the subject of your current transaction, you do no have to do anything; the Company will provide the discount, provided you are paying for escrow or title services in this transaction.

If your previous transaction involved property different from the property that is subject of your current transaction, you must – prior to the close of the current transaction – inform the Company of the earlier transaction, provide the address of the property involved in the previous transaction, and the date or approximate date that the escrow closed to be eligible for the discount.

Unless you inform the Company if the prior transaction on property that is not the subject of this transaction, the Company has no obligation to conduct an investigation to determine if you qualify for a discount. If you provide the Company information concerning a prior transaction, the Company is required to determine if you quality for a discount which is subject to other terms and conditions.

Name: _____

Address: _____

Telephone No: _____

Note No. 18:

Note No. 19: Lawyers Title Company
Note No. 20: 3480 Vine Street Suite 100
Note No. 21: Riverside, CA 92507
Note No. 22: Phone: (951) 774-0825
Note No. 23: Fax: ( )

Order No: 69671708-LTIE

"Notice to Customers"

(**I**nvolves **R**esidential **R**eal **P**roperty in **C**alifornia **ONLY**)

You may be entitled to receive a $20.00 discount on escrow services if you purchased, sold or refinanced residential property in California between May 19, 1995 and November 1, 2002. If you had more than one qualifying transaction, you may be entitled to multiple discounts.

If your previous transaction involved the same property that is the subject of your current transaction, you do no have to do anything; the Company will provide the discount, provided you are paying for escrow or title services in this transaction.

If your previous transaction involved property different from the property that is subject of your current transaction, you must – prior to the close of the current transaction – inform the Company of the earlier transaction, provide the address of the property involved in the previous transaction, and the date or approximate date that the escrow closed to be eligible for the discount.

Unless you inform the Company if the prior transaction on property that is not the subject of this transaction, the Company has no obligation to conduct an investigation to determine if you qualify for a discount. If you provide the Company information concerning a prior transaction, the Company is required to determine if you quality for a discount which is subject to other terms and conditions.

Name: _____

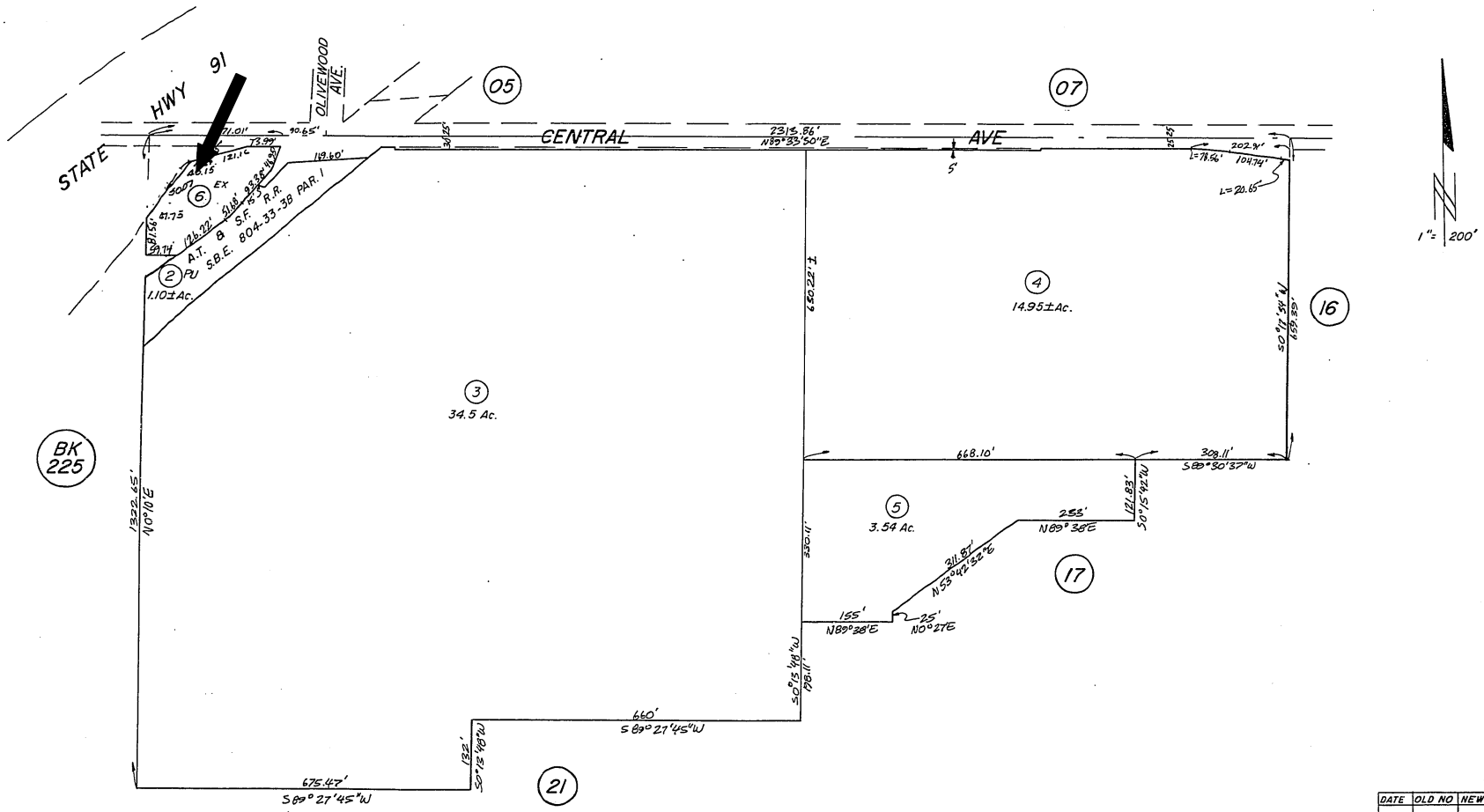
Address: _____

Telephone No: _____

POR. CITY OF RIVERSIDE
POR. SW 1/4 SEC. 35, T.2S. R.5W.

T.R.A. 902

4 - 28
223 - 15



DATA: INSTR. # 74622 10/58
45304 5/61
4229 1/68
3405 1/60
RIGHT OF WAY MAP # 423534-5
SBE 804-33-38
RS 18/19
M.B. 40/7, 19/52, 20/17, 26/75, 51/99
P.M. 16/49

ASSESSOR'S MAP BK 223 PG. 15
RIVERSIDE COUNTY, CALIF

DATE	OLD NO	NEW NO.
4-99	1	6, 5t

JUN 1 1 1999

MAR. 1974

Appendix 3

Regulatory Records Documentation

Magnolia Substation
3416 Central Avenue
Riverside, CA 92506

Inquiry Number: 03651854.2r
June 28, 2013

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

3416 CENTRAL AVENUE
RIVERSIDE, CA 92506

COORDINATES

Latitude (North):	33.9535000 - 33° 57' 12.60''
Longitude (West):	117.3828000 - 117° 22' 58.08''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	464629.1
UTM Y (Meters):	3756871.8
Elevation:	863 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	33117-H4 RIVERSIDE WEST, CA
Most Recent Revision:	1980
East Map:	33117-H3 RIVERSIDE EAST, CA
Most Recent Revision:	1980

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2012
Source:	USDA

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

EXECUTIVE SUMMARY

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

CERCLIS ---------- Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP ---------- CERCLIS No Further Remedial Action Planned

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-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls
LUCIS ---------- Land Use Control Information System

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

SLIC ---------- Statewide SLIC Cases
INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land
FEMA UST ---------- Underground Storage Tank Listing

State and tribal voluntary cleanup sites

VCP ---------- Voluntary Cleanup Program Properties

INDIAN VCP	Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS	A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI	Open Dump Inventory
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
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

Local Lists of Hazardous waste / Contaminated Sites

US CDL	Clandestine Drug Labs
HIST Cal-Sites	Historical Calsites Database
SCH	School Property Evaluation Program
Toxic Pits	Toxic Pits Cleanup Act Sites
CDL	Clandestine Drug Labs
US HIST CDL	National Clandestine Laboratory Register

Local Land Records

LIENS 2	CERCLA Lien Information
LIENS	Environmental Liens Listing
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
DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
US MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

HIST FTTS FIFRA/TSCA Tracking System Administrative Case Listing
SSTS Section 7 Tracking Systems
ICIS Integrated Compliance Information System
PADS PCB Activity Database System
MLTS Material Licensing Tracking System
RADINFO Radiation Information Database
FINDS Facility Index System/Facility Registry System
RAATS RCRA Administrative Action Tracking System
RMP Risk Management Plans
CA BOND EXP. PLAN Bond Expenditure Plan
UIC UIC Listing
NPDES NPDES Permits Listing
Cortese "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings CUPA Resources List
DRYCLEANERS Cleaner Facilities
WIP Well Investigation Program Case List
ENF Enforcement Action Listing
HAZNET Facility and Manifest Data
EMI Emissions Inventory Data
INDIAN RESERV Indian Reservations
SCRD DRYCLEANERS State Coalition for Remediation of Drycleaners Listing
COAL ASH DOE Steam-Electric Plant Operation Data
COAL ASH EPA Coal Combustion Residues Surface Impoundments List
HWT Registered Hazardous Waste Transporter Database
Financial Assurance Financial Assurance Information Listing
LEAD SMELTERS Lead Smelter Sites
2020 COR ACTION 2020 Corrective Action Program List
US AIRS Aerometric Information Retrieval System Facility Subsystem
PRP Potentially Responsible Parties
WDS Waste Discharge System
EPA WATCH LIST EPA WATCH LIST
US FIN ASSUR Financial Assurance Information
PCB TRANSFORMER PCB Transformer Registration Database
PROC Certified Processors Database
MWMP Medical Waste Management Program Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants
EDR US Hist Cleaners EDR Exclusive Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 02/12/2013 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BOURNS INSTRUMENTS INC	***6135 MAGNOLIA AVE***	***WNW 1/2 - 1 (0.679 mi.)***	***20***	***44***

Federal RCRA generators list

RCRA-SQG: 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.

A review of the RCRA-SQG list, as provided by EDR, and dated 02/12/2013 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TEXACO SERVICE STATION	***3498 CENTRAL***	***W 1/8 - 1/4 (0.239 mi.)***	***B6***	***13***

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 identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 05/06/2013 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
JEFFERIES TRANSFORMERS COMPANY Status: No Further Action	3765 JURUPA AVENUE	NW 1/2 - 1 (0.668 mi.)	19	43
BOURNS INSTRUMENTS INC Status: Refer: RCRA Status: * Inactive	***6135 MAGNOLIA AVE***	***WNW 1/2 - 1 (0.679 mi.)***	***20***	***44***

EXECUTIVE SUMMARY

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 06/17/2013 has revealed that there are 13 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
OLIVEWOOD CEMETERY	3300 CENTRAL AVE	E 0 - 1/8 (0.090 mi.)	A2	9
OLIVEWOOD CEMETERY	***3300 CENTRAL***	***E 0 - 1/8 (0.090 mi.)***	***A3***	***10***
Status: Completed - Case Closed				
DIGAS	***3333 ARLINGTON AVE***	***S 1/4 - 1/2 (0.444 mi.)***	***D13***	***33***
Status: Completed - Case Closed				
ALAMEDA MANAGMENT #542/ TESORO	3333 ARLINGTON AVE	S 1/4 - 1/2 (0.444 mi.)	D14	35
915	***3417 ARLINGTON AVE***	***SSW 1/4 - 1/2 (0.463 mi.)***	***E16***	***37***
Status: Completed - Case Closed				
RIVERSIDE MARKETING #5	***3417 ARLINGTON AVE***	***SSW 1/4 - 1/2 (0.463 mi.)***	***E17***	***40***
UNOCAL #4628	3434 ARLINGTON	SSW 1/4 - 1/2 (0.484 mi.)	E18	42

Lower Elevation	Address	Direction / Distance	Map ID	Page
TEXACO SERVICE STATION	***3498 CENTRAL***	***W 1/8 - 1/4 (0.239 mi.)***	***B6***	***13***
Status: Completed - Case Closed				
TEXACO SERVICE STATION	***3498 CENTRAL AVE***	***W 1/8 - 1/4 (0.239 mi.)***	***B7***	***21***
SHELL CENTRAL	3504 CENTRAL AVENUE	W 1/4 - 1/2 (0.254 mi.)	B8	23
SHELL CENTRAL	3504 CENTRAL AVENUE	W 1/4 - 1/2 (0.254 mi.)	B9	24
Status: Completed - Case Closed				
THRIFTY OIL #342/ ARCO #9712	3570 CENTRAL AVE	W 1/4 - 1/2 (0.372 mi.)	C10	25
THRIFTY OIL #342 ARCO #9712	3570 CENTRAL AVE	W 1/4 - 1/2 (0.372 mi.)	C12	28
Status: Completed - Case Closed				

State and tribal registered storage tank lists

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

A review of the UST list, as provided by EDR, and dated 06/17/2013 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TEXACO STATION	***3498 CENTRAL AVE***	***W 1/8 - 1/4 (0.239 mi.)***	***B5***	***12***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TEXACO SERVICE STATION	***3498 CENTRAL AVE***	***W 1/8 - 1/4 (0.239 mi.)***	***B7***	***21***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TEXACO	3498 CENTRAL & RIVERSID	WNW 0 - 1/8 (0.038 mi.)	1	8

SWEEPS UST: 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.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TEXACO STATION	***3498 CENTRAL AVE***	***W 1/8 - 1/4 (0.239 mi.)***	***B5***	***12***

Other Ascertainable Records

HIST CORTESE: 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.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 5 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
OLIVEWOOD CEMETERY	***3300 CENTRAL***	***E 0 - 1/8 (0.090 mi.)***	***A3***	***10***
ALAMEDA #542	***3333 ARLINGTON AVE***	***S 1/4 - 1/2 (0.444 mi.)***	***D15***	***36***
RIVERSIDE MARKETING #5	***3417 ARLINGTON AVE***	***SSW 1/4 - 1/2 (0.463 mi.)***	***E17***	***40***

Lower Elevation	Address	Direction / Distance	Map ID	Page
TEXACO SERVICE STATION	***3498 CENTRAL AVE***	***W 1/8 - 1/4 (0.239 mi.)***	***B7***	***21***

Lower Elevation	Address	Direction / Distance	Map ID	Page
THRIFTY OIL #342	***3570 CENTRAL AVE***	***W 1/4 - 1/2 (0.372 mi.)***	***C11***	***26***

Notify 65: 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.

A review of the Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
76 STATION 5745	***6575 BROCKTON***	***W 1/2 - 1 (0.750 mi.)***	***21***	***53***

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 05/28/2013 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BOURNS INSTRUMENTS INC	***6135 MAGNOLIA AVE***	***WNW 1/2 - 1 (0.679 mi.)***	***20***	***44***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR US Hist Auto Stat: 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.

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

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	3498 CENTRAL AVE	W 1/8 - 1/4 (0.239 mi.)	B4	11

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 25 records.

Site Name	Database(s)
344 N STATE APT 148	US HIST CDL
TEXACO SERVICE STATION	HIST CORTESE, LUST
CANYON SPRINGS LLC	NPDES
LANDFILL,TEQUESQUITE-CLOSED	SWF/LF, LDS, Financial Assurance
	CDL
	CDL
	CDL
CITY OF RIVERSIDE GRANITE PIT MINE	SWF/LF
TEXACO ARLINGTON	LUST
UNOCAL #4628	LUST
UCR - PARKING LOT 6	LUST
U C RIVERSIDE PARKING LOT #6	LUST
MAGNOLIA MERRILL LLC	HAZNET
MICHAEL KEITH SMITH	HAZNET
CALTRANS DIST 8/CONSTRUCTION	HAZNET
CITY OF RIVERSIDE	HAZNET
RIVERSIDE COUNTY EMERGENCY RESPONS	HAZNET
1X SPECIALIZED MOTOR SERVICE	HAZNET
CAROL BUXBON	HAZNET
GENERAL TELEPHONE OF CA	RCRA-SQG, FINDS
RIVERSIDE PLUME	SLIC
RIVERSIDE PLUME	SLIC
PACIFIC CLAY PRODS CO	US MINES
UNIV CAL RIVERSIDE 049387	EMI
UNIV SO CAL RIV DEPT OF PHYSIC	EMI

OVERVIEW MAP - 03651854.2r

Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

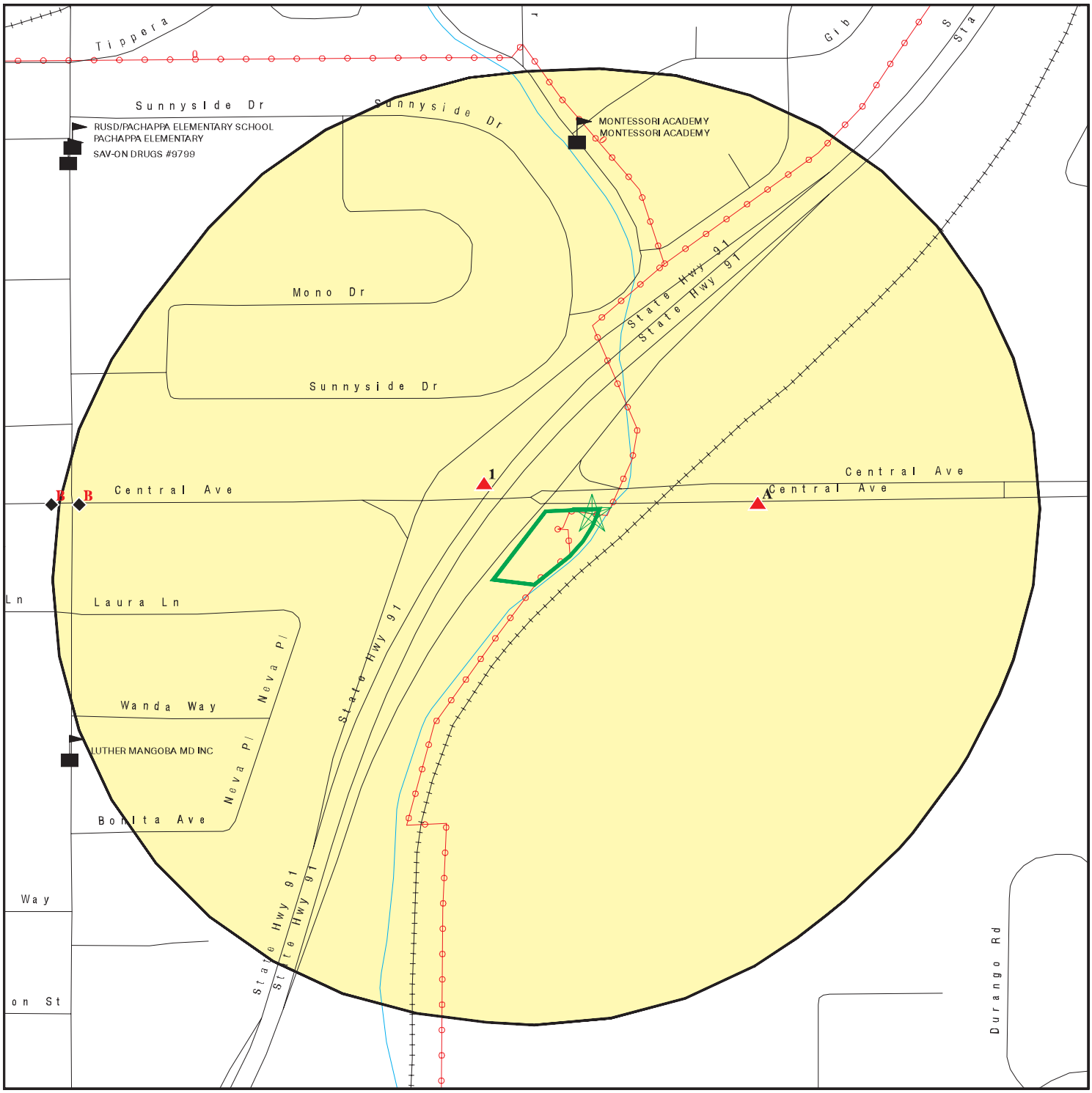
Areas of Concern

N

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

SITE NAME: Magnolia Substation ADDRESS: 3416 Central Avenue Riverside CA 92506 LAT/LONG: 33.9535 / 117.3828	CLIENT: Rincon CONTACT: Carly Gagen-Cheeney INQUIRY #: 03651854.2r DATE: June 28, 2013 6:11 pm

DETAIL MAP - 03651854.2r



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Power transmission lines

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

Areas of Concern

N

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

SITE NAME: Magnolia Substation	CLIENT: Rincon
ADDRESS: 3416 Central Avenue Riverside CA 92506	CONTACT: Carly Gagen-Cheeney INQUIRY #: 03651854.2r
LAT/LONG: 33.9535 / 117.3828	DATE: June 28, 2013 6:15 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								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.038		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	1	NR	1
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	1	NR	NR	NR	1
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.038		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	2	NR	2
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		2	2	9	NR	NR	13

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
SLIC	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250		0	1	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.038		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	0.038		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CDL	0.038		0	NR	NR	NR	NR	0
US HIST CDL	0.038		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		0	1	NR	NR	NR	1
HIST UST	0.250		1	0	NR	NR	NR	1
SWEEPS UST	0.250		0	1	NR	NR	NR	1
Local Land Records								
LIENS 2	0.038		0	NR	NR	NR	NR	0
LIENS	0.038		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.038		0	NR	NR	NR	NR	0
CHMIRS	0.038		0	NR	NR	NR	NR	0
LDS	0.038		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
MCS	0.038		0	NR	NR	NR	NR	0
SPILLS 90	0.038		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
DOT OPS	0.038		0	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	0.038		0	NR	NR	NR	NR	0
TSCA	0.038		0	NR	NR	NR	NR	0
FTTS	0.038		0	NR	NR	NR	NR	0
HIST FTTS	0.038		0	NR	NR	NR	NR	0
SSTS	0.038		0	NR	NR	NR	NR	0
ICIS	0.038		0	NR	NR	NR	NR	0
PADS	0.038		0	NR	NR	NR	NR	0
MLTS	0.038		0	NR	NR	NR	NR	0
RADINFO	0.038		0	NR	NR	NR	NR	0
FINDS	0.038		0	NR	NR	NR	NR	0
RAATS	0.038		0	NR	NR	NR	NR	0
RMP	0.038		0	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
UIC	0.038		0	NR	NR	NR	NR	0
NPDES	0.038		0	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		1	1	3	NR	NR	5
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	1	NR	1
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	0.038		0	NR	NR	NR	NR	0
HAZNET	0.038		0	NR	NR	NR	NR	0
EMI	0.038		0	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
COAL ASH DOE	0.038		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HWP	1.000		0	0	0	1	NR	1
Financial Assurance	0.038		0	NR	NR	NR	NR	0
LEAD SMELTERS	0.038		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
US AIRS	0.038		0	NR	NR	NR	NR	0
PRP	0.038		0	NR	NR	NR	NR	0
WDS	0.038		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.038		0	NR	NR	NR	NR	0
US FIN ASSUR	0.038		0	NR	NR	NR	NR	0
PCB TRANSFORMER	0.038		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
PROC	0.500		0	0	0	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	1	NR	NR	NR	1
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
WNW
< 1/8
0.038 mi.
198 ft.

TEXACO — **HIST UST** — **U001576473**
3498 CENTRAL & RIVERSIDE FWY. — **N/A**
RIVERSIDE, CA 92506

Relative:
Higher

Actual:
863 ft.

HIST UST:

Region:	STATE
Facility ID:	00000016187
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Contact Name:	Not reported
Telephone:	7146830440
Owner Name:	TEXACO U.S.A.
Owner Address:	3350 WILSHIRE BLVD.
Owner City,St,Zip:	LOS ANGELES, CA 90010

Tank Num:	001
Container Num:	1
Year Installed:	1968
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Tank Construction:	Not reported
Leak Detection:	Stock Inventor, None

Tank Num:	002
Container Num:	2
Year Installed:	1968
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Tank Construction:	Not reported
Leak Detection:	Stock Inventor, None

Tank Num:	003
Container Num:	3
Year Installed:	1971
Tank Capacity:	00100000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Tank Construction:	Not reported
Leak Detection:	None

Tank Num:	004
Container Num:	4
Year Installed:	1971
Tank Capacity:	00100000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Tank Construction:	Not reported
Leak Detection:	None

A2
East
< 1/8
0.090 mi.
475 ft.

OLIVEWOOD CEMETERY
3300 CENTRAL AVE
RIVERSIDE, CA 92506

Site 1 of 2 in cluster A

LUST **S102434663**
N/A

Relative:
Higher

Actual:
879 ft.

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083301499T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	91 FWY
Enf Type:	None Taken
Funding:	Not reported
How Discovered:	Tank Test
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	UNK
Global ID:	T0606500178
How Stopped Date:	1/3/1990
Enter Date:	4/30/1990
Review Date:	Not reported
Prelim Assess:	5/14/1990
Discover Date:	1/3/1990
Enforcement Date:	1/1/1965
Close Date:	6/20/1991
Workplan:	Not reported
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Enter Date:	4/30/1990
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.9533915
Longitude:	-117.3827071
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	PAH
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UNNAMED BASIN
Beneficial:	Not reported

OLIVEWOOD CEMETERY (Continued) **S102434663**

Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

A3 **OLIVEWOOD CEMETERY** **HIST CORTESE** **S105025853**
East **3300 CENTRAL** **LUST** **N/A**
< 1/8 **RIVERDALE, CA 92506**
0.090 mi.
475 ft. **Site 2 of 2 in cluster A**

Relative:
Higher

Actual:
879 ft.

CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 083301499T

LUST:
Region: STATE
Global Id: T0606500178
Latitude: 33.9536191
Longitude: -117.3812613
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 06/20/1991
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: SCB
Local Agency: RIVERSIDE COUNTY LOP
RB Case Number: 083301499T
LOC Case Number: 90340
File Location: Local Agency Warehouse
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0606500178
Contact Type: Local Agency Caseworker
Contact Name: SHARON BOLTINGHOUSE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: sbolting@rivcocha.org
Phone Number: 9519558982

Regulatory Activities:
Global Id: T0606500178
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0606500178
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

OLIVEWOOD CEMETERY (Continued) **S105025853**

Global Id: T0606500178
Action Type: ENFORCEMENT
Date: 06/20/1991
Action: Closure/No Further Action Letter - #RCDEH0620

Global Id: T0606500178
Action Type: ENFORCEMENT
Date: 06/19/1991
Action: File review - #RCDEH Upload Site File 7/22/2010

Global Id: T0606500178
Action Type: REMEDIATION
Date: 01/01/1950
Action: Other (Use Description Field)

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 90340
Employee: Boltinghous-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed

B4 **EDR US Hist Auto Stat** **1015441536**
West **3498 CENTRAL AVE** **N/A**
1/8-1/4 **RIVERSIDE, CA 92506**
0.239 mi.
1260 ft. **Site 1 of 6 in cluster B**

Relative:
Lower

Actual:
841 ft.

EDR Historical Auto Stations:
Name: TEXACO STAR MART & A & W
Year: 2001
Address: 3498 CENTRAL AVE

Name: TEXACO STAR MART & A & W
Year: 2002
Address: 3498 CENTRAL AVE

Name: TEXACO STAR MART & A & W
Year: 2003
Address: 3498 CENTRAL AVE

Name: TEXACO STAR MART & A & W
Year: 2004
Address: 3498 CENTRAL AVE

B5 **TEXACO STATION** **UST** **U002168145**
West **3498 CENTRAL AVE** **SWEEPS UST** **N/A**
1/8-1/4 **RIVERSIDE, CA 92506**
0.239 mi.
1260 ft. **Site 2 of 6 in cluster B**

Relative:
Lower

Actual:
841 ft.

UST:
Facility ID: 757
Latitude: 33.95353
Longitude: -117.38771

RIVERSIDE CO. UST:
Region: RIVERSIDE
Total Tanks: 3

SWEEPS UST:
Status: Active
Comp Number: 16187
Number: 1
Board Of Equalization: 44-000217
Referral Date: 11-19-92
Action Date: 11-19-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: 001013
Swrcb Tank Id: 33-000-016187-000002
Actv Date: 11-19-92
Capacity: 12000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 5

Status: Active
Comp Number: 16187
Number: 1
Board Of Equalization: 44-000217
Referral Date: 11-19-92
Action Date: 11-19-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: 001013
Swrcb Tank Id: 33-000-016187-000003
Actv Date: 11-19-92
Capacity: 8000
Tank Use: M.V. FUEL
Stg: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 16187
Number: 1
Board Of Equalization: 44-000217
Referral Date: 11-19-92
Action Date: 11-19-92
Created Date: 02-29-88
Tank Status: A

TEXACO STATION (Continued) **U002168145**

Owner Tank Id:	001013
Swrcb Tank Id:	33-000-016187-000004
Actv Date:	11-19-92
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	P
Content:	DIESEL
Number Of Tanks:	Not reported
Status:	Active
Comp Number:	16187
Number:	1
Board Of Equalization:	44-000217
Referral Date:	11-19-92
Action Date:	11-19-92
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	001013
Swrcb Tank Id:	33-000-016187-000005
Actv Date:	11-19-92
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported
Status:	Active
Comp Number:	16187
Number:	1
Board Of Equalization:	44-000217
Referral Date:	11-19-92
Action Date:	11-19-92
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	001013
Swrcb Tank Id:	33-000-016187-000006
Actv Date:	11-19-92
Capacity:	550
Tank Use:	OIL
Stg:	W
Content:	WASTE OIL
Number Of Tanks:	Not reported

B6 **TEXACO SERVICE STATION** **RCRA-SQG** **1001967337**
West **3498 CENTRAL** **LUST** **CAR000067777**
1/8-1/4 **RIVERSIDE, CA 92506** **HAZNET**
0.239 mi.
1260 ft. **Site 3 of 6 in cluster B**

Relative:
Lower

Actual:
841 ft.

RCRA-SQG:

Date form received by agency:	03/13/2000
Facility name:	TEXACO SERVICE STATION
Facility address:	3498 CENTRAL RIVERSIDE, CA 92506
EPA ID:	CAR000067777
Mailing address:	P O BOX 2099 RM1331 HOUSTON, TX 77252
Contact:	SONDRA BIENVENU

TEXACO SERVICE STATION (Continued) **1001967337**

Contact address: P O BOX 2099 RM1331
HOUSTON, TX 77252
Contact country: US
Contact telephone: (713) 241-2258
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: EQUILON ENTERPRISES L L C
Owner/operator address: P O BOX 2099 RM1331
HOUSTON, TX 77252
Owner/operator country: Not reported
Owner/operator telephone: (713) 241-2258
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: D000
Waste name: Not Defined

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D018
Waste name: BENZENE

TEXACO SERVICE STATION (Continued) **1001967337**

Violation Status: No violations found

LUST:

Region:	STATE
Global Id:	T0606500390
Latitude:	33.9533194
Longitude:	-117.3876553
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/22/2010
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	SCB
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	083302519T
LOC Case Number:	94845
File Location:	Local Agency
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	***Data prior to 2005 does not appear in GeoTracker. Consult agency files for all site data*** Leak Discovery / UST Removals 9/1994 The product piping and dispenser islands were replaced and 13 soil samples were collected. Hydrocarbons were detected in several soil samples with maximum concentrations up to 15,000 ppm TPH-g, 66 ppm benzene (B), 470 ppm toluene (T), 140 ppm ethylbenzene (E), and 870 ppm xylenes (X) were detected in the soil near the western dispenser island. The site was entered into the LOP. 5/1997 The waste-oil UST, hydraulic hoists and clarifier were removed. Total recoverable hydrocarbons (TRPH) were detected at concentrations of 16 to 27 mg/kg under the hoists. 7/2004 Three 10,000-gal gasoline, one 12,000-gal diesel, and one 550-gal waste oil USTs were removed July 16, 2004. Soil samples were collected under the USTs, piping, and dispenser areas. Almost all of the results were ND with only a few detections of TPHg (max: 6.4 ppm), TPHd (330 ppm), and T (6.8 ppb). The USTs were replaced by the new dealer. Site Assessment 9/1994 to 11/1995 Site assessment was conducted, including completion/installation of: 9 soil borings, 4 groundwater (GW) monitoring wells, 1 dual-completion VE/GW well, and 4 VE wells. Soil was impacted to GW at 72 ft below ground surface (bgs) and the GW in wells MW-1 through MW-5 was found to be impacted. 1/1997 to 2/1997 Four off-site GW monitoring wells were installed. Soil was found to be impacted at/near the capillary fringe in the off-site wells and GW samples showed that the plume had migrated off-site. 7/2001 and 9/2003 Five additional downgradient GW monitoring wells were installed. The GW plume was adequately delineated. 4/2007 to 7/2007 Four SVE wells were installed to facilitate vapor extraction from specific soil zones which were continuing to show elevated contaminant concentrations. Remediation / Verification 3/1998 to 9/1998 Soil vapor extraction (SVE) and air sparge remediation system operated at the site using wells VE-1 through VE-5 for extraction. Based on field OVA readings, a total of 21,069 lb hydrocarbons were removed. 2/2000 to 7/2000 SVE operations were re-initiated and an additional 1,041 lb of hydrocarbons were removed. 5/2002 to 7/2002 SVE rebound testing was conducted. Vapor concentrations increased in wells VEW-1, VEW-4 and VEW-5. Concentrations decreased in wells VEW-2 and VEW-3. 6/2003 to 8/2005 SVE operations were re-initiated and, based on lab data, an additional 3,594 lb hydrocarbons, 6.88 lb B, 218 lb T, 74 lb E, 605 lb X, and 12 lb MTBE were removed from subsurface soils. 12/2005 and 2/2006 An extended SVE rebound test was conducted using wells SVE-3

TEXACO SERVICE STATION (Continued) **1001967337**

through SVE-5 and a 24-hr SVE rebound test was conducted using SVE-1 through SVE-5. Influent vapor sample concentrations on the extended test ranged from 6500 ppmV to ND<200 ppmV TPHg with a hydrocarbon removal rate of 7.68 lb/day. Maximum vapor concentrations detected during the 24-hr test were: 85 ppmV TPHg (VEW-1), 52 ppbV B (VEW-1), 300 ppbV T (VEW-1), 53 ppbV E (VEW-1), 6200 ppbV X (VEW-1), ND MTBE, 2200 ppbV TBA (VEW-1), other oxygenates were ND. Xylene concentrations increased during the test. The hydrocarbon removal rate was 0.125 lb/hr and 3 lb of hydrocarbons were removed during the test. 7/2006 Five confirmation soil borings were drilled to verify subsurface soil conditions. Elevated soil concentrations were detected in borings CB-2 and CB-5 at depths between 60 to 85 ft bgs (depth to GW ~74 ft bgs). Maximum soil concentrations were in boring CB-5 at 65 ft bgs: 8700 ppm TPHg, 23 ppm B, 540 ppm T, 210 ppm E, and 1200 ppm X. Both of these borings are located in the areas with the highest historic and current GW impacts. The Riverside County LOP and the RWQCB required further remediation of soils just above the water table with elevated contaminant concentrations. 4/2007 One SVE well was i

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500390
Contact Type:	Local Agency Caseworker
Contact Name:	SHARON BOLTINGHOUSE
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	sbolting@rivcocha.org
Phone Number:	9519558982

Global Id:	T0606500390
Contact Type:	Regional Board Caseworker
Contact Name:	TOM E. MBEKE-EKANEM
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	tmbeke-ekanem@waterboards.ca.gov
Phone Number:	9513202007

Regulatory Activities:

Global Id:	T0606500390
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0606500390
Action Type:	RESPONSE
Date:	01/15/2008
Action:	Other Report / Document

Global Id:	T0606500390
Action Type:	RESPONSE
Date:	10/15/2007
Action:	Monitoring Report - Quarterly

TEXACO SERVICE STATION (Continued) **1001967337**

Global Id: T0606500390
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 04/28/2009
Action: Staff Letter - #RCDEH 042809

Global Id: T0606500390
Action Type: RESPONSE
Date: 02/27/2009
Action: Other Report / Document

Global Id: T0606500390
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606500390
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Quarterly

Global Id: T0606500390
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0606500390
Action Type: RESPONSE
Date: 06/29/2007
Action: Other Report / Document

Global Id: T0606500390
Action Type: RESPONSE
Date: 07/20/2007
Action: Other Workplan

Global Id: T0606500390
Action Type: RESPONSE
Date: 08/31/2007
Action: Other Report / Document

Global Id: T0606500390
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 07/22/2010
Action: Closure/No Further Action Letter - #RCDEH closure

Global Id: T0606500390
Action Type: ENFORCEMENT

TEXACO SERVICE STATION (Continued) **1001967337**

Date: 11/01/2007
Action: Technical Correspondence / Assistance / Other - #RCDEH110107

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 11/01/2007
Action: File review

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 12/05/2008
Action: Staff Letter - #RCDEH1120508

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 09/26/2008
Action: File review

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 01/28/2010
Action: Staff Letter - #RCDEH012810

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 11/14/2008
Action: File review

Global Id: T0606500390
Action Type: RESPONSE
Date: 11/06/2009
Action: Other Report / Document

Global Id: T0606500390
Action Type: RESPONSE
Date: 05/18/2007
Action: Other Report / Document

Global Id: T0606500390
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606500390
Action Type: RESPONSE
Date: 11/10/2008
Action: Other Workplan

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 08/13/2009
Action: Staff Letter - #RCDEH081309

Global Id: T0606500390
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

TEXACO SERVICE STATION (Continued) **1001967337**

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 06/07/2007
Action: Staff Letter - #RCDEH 060707

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 07/23/2007
Action: Staff Letter - #RCDEH 072307

Global Id: T0606500390
Action Type: RESPONSE
Date: 06/30/2009
Action: Other Report / Document

Global Id: T0606500390
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 03/05/2007
Action: Staff Letter - #RCDEH 030507

Global Id: T0606500390
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0606500390
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606500390
Action Type: REMEDIATION
Date: 01/01/1950
Action: Soil Vapor Extraction (SVE)

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 02/10/2009
Action: File review

Global Id: T0606500390
Action Type: ENFORCEMENT
Date: 09/02/2009
Action: Staff Letter - #RCDEH090209

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 94845
Employee: Boltinghous-LOP
Site Closed: Yes
Case Type: Drinking Water Aquifer affected

TEXACO SERVICE STATION (Continued) **1001967337**

Facility Status: closed/action completed

HAZNET:

Year:	2010
Gepaid:	CAR000067777
Contact:	J. Traylor/ENV REPORTING ANALYST
Telephone:	7132416992
Mailing Name:	Not reported
Mailing Address:	PO BOX 3127
Mailing City,St,Zip:	HOUSTON, TX 772530000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Alkaline solution without metals pH >= 12.5
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.1251
Facility County:	Riverside

Year:	2004
Gepaid:	CAR000067777
Contact:	N CORTEZ/ENVT'L DATA ANALYST
Telephone:	2818742224
Mailing Name:	Not reported
Mailing Address:	12700 NORTHBOROUGH DRIVE
Mailing City,St,Zip:	Houston, TX 770672508
Gen County:	Not reported
TSD EPA ID:	CAD008364432
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Recycler
Tons:	0.01
Facility County:	Riverside

Year:	2004
Gepaid:	CAR000067777
Contact:	N CORTEZ/ENVT'L DATA ANALYST
Telephone:	2818742224
Mailing Name:	Not reported
Mailing Address:	12700 NORTHBOROUGH DRIVE
Mailing City,St,Zip:	Houston, TX 770672508
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Not reported
Tons:	2.29
Facility County:	Riverside

Year:	2003
Gepaid:	CAR000067777
Contact:	N CORTEZ/ENVT'L DATA ANALYST
Telephone:	2818742224
Mailing Name:	Not reported
Mailing Address:	12700 NORTHBOROUGH DRIVE
Mailing City,St,Zip:	Houston, TX 770672508
Gen County:	Not reported

TEXACO SERVICE STATION (Continued) **1001967337**

TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: 0.03
Facility County: Riverside

Year: 2002
Gepaid: CAR000067777
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Treatment, Tank
Tons: 1.14
Facility County: Riverside

Click this hyperlink while viewing on your computer to access
2 additional CA_HAZNET: record(s) in the EDR Site Report.

B7 **TEXACO SERVICE STATION** **HIST CORTESE** **S101590055**
West **3498 CENTRAL AVE** **LUST** **N/A**
1/8-1/4 **RIVERSIDE, CA 92506** **CA FID UST**
0.239 mi.
1260 ft. **Site 4 of 6 in cluster B**

Relative:
Lower

Actual:
841 ft.

CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 083302519T

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Remediation Plan
Case Number: 083302519T
Local Case Num: 94845
Case Type: Aquifer affected
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Remove Free Product - remove floating product from water table
Cross Street: RIVERSIDE
Enf Type: Not reported
Funding: Not reported
How Discovered: OM
How Stopped: Not reported
Leak Cause: UNK
Leak Source: UNK
Global ID: T0606500390
How Stopped Date: 9/22/1994

TEXACO SERVICE STATION (Continued) **S101590055**

Enter Date:	11/18/1994
Review Date:	10/3/1994
Prelim Assess:	4/25/1995
Discover Date:	9/28/1994
Enforcement Date:	Not reported
Close Date:	Not reported
Workplan:	10/14/1994
Pollution Char:	8/29/1995
Remed Plan:	12/17/1996
Remed Action:	Not reported
Monitoring:	Not reported
Enter Date:	11/18/1994
GW Qualifies:	=
Soil Qualifies:	ND
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.9533194
Longitude:	-117.3876553
MTBE Date:	8/25/1997
Max MTBE GW:	1080
MTBE Concentration:	1
Max MTBE Soil:	5
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	C
Staff:	TME
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UNNAMED BASIN
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	PROPOSING VE. MTBE MAX. 180 PPB, BENZENE MAX 2100 PPB 05/01/97.

CA FID UST:

Facility ID:	33002940
Regulated By:	UTNKA
Regulated ID:	00016187
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7147818624
Mail To:	Not reported
Mailing Address:	10 UNIVERSAL PLAZA
Mailing Address 2:	Not reported
Mailing City,St,Zip:	RIVERSIDE 92506
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

B8 **SHELL CENTRAL** **LUST** **S106161974**
West **3504 CENTRAL AVENUE** **N/A**
1/4-1/2 **RIVERSIDE, CA 92506**
0.254 mi.
1342 ft. **Site 5 of 6 in cluster B**

Relative:
Lower

Actual:
840 ft.

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	Not reported
Local Case Num:	200420314
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	RIVERSIDE DRIVE
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	OM
How Stopped:	Close Tank
Leak Cause:	UNK
Leak Source:	UNK
Global ID:	T0606599175
How Stopped Date:	12/22/2003
Enter Date:	Not reported
Review Date:	2/9/2004
Prelim Assess:	Not reported
Discover Date:	1/29/2004
Enforcement Date:	Not reported
Close Date:	4/19/2004
Workplan:	Not reported
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	Not reported
Latitude:	0
Longitude:	0
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	CAB
Staff Initials:	SCB
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	Not reported
Beneficial:	Not reported

SHELL CENTRAL (Continued) **S106161974**

Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

B9 **SHELL CENTRAL** **LUST** **S103987724**
West **3504 CENTRAL AVENUE** **N/A**
1/4-1/2 **RIVERSIDE, CA 92506**
0.254 mi.
1342 ft. **Site 6 of 6 in cluster B**

Relative:
Lower

Actual:
840 ft.

LUST:

Region:	STATE
Global Id:	T0606599175
Latitude:	33.95344
Longitude:	-117.388291
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	04/19/2004
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	SCB
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	200420314
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606599175
Contact Type:	Local Agency Caseworker
Contact Name:	SHARON BOLTINGHOUSE
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	sbolting@rivcocha.org
Phone Number:	9519558982

Global Id:	T0606599175
Contact Type:	Regional Board Caseworker
Contact Name:	CARL BERNHARDT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	cbernhardt@waterboards.ca.gov
Phone Number:	9517824495

Regulatory Activities:

Global Id:	T0606599175
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0606599175
Action Type:	Other

SHELL CENTRAL (Continued) **S103987724**

Date: 01/01/1950
Action: Leak Stopped

Global Id: T0606599175
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0606599175
Action Type: REMEDIATION
Date: 01/01/1950
Action: Other (Use Description Field)

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 200420314
Employee: Boltinghous-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed

C10 **THRIFTY OIL #342/ ARCO #9712** **LUST** **S104025210**
West **3570 CENTRAL AVE** **N/A**
1/4-1/2 **RIVERSIDE, CA 92506**
0.372 mi.
1966 ft. **Site 1 of 3 in cluster C**

Relative:
Lower

Actual:
838 ft.

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Leak being confirmed
Case Number: 083303273T
Local Case Num: 980444
Case Type: Aquifer affected
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: SAN DIEGO
Enf Type: Not reported
Funding: Not reported
How Discovered: Not reported
How Stopped: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Global ID: T0606500541
How Stopped Date: Not reported
Enter Date: 11/5/1998
Review Date: 1/1/1965
Prelim Assess: Not reported
Discover Date: 12/29/1997
Enforcement Date: Not reported
Close Date: Not reported
Workplan: Not reported
Pollution Char: Not reported
Remed Plan: Not reported

THRIFTY OIL #342/ ARCO #9712 (Continued) **S104025210**

Remed Action:	Not reported
Monitoring:	Not reported
Enter Date:	11/5/1998
GW Qualifies:	=
Soil Qualifies:	=
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.9533044
Longitude:	-117.3901364
MTBE Date:	5/28/2003
Max MTBE GW:	145000
MTBE Concentration:	1
Max MTBE Soil:	134
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	B
Staff:	VJJ
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

C11 **THRIFTY OIL #342** **HIST CORTESE** **S101590178**
West **3570 CENTRAL AVE** **CA FID UST** **N/A**
1/4-1/2 **RIVERSIDE, CA 92506** **SWEEPS UST**
0.372 mi.
1966 ft. **Site 2 of 3 in cluster C**

Relative:
Lower

Actual:
838 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	083303273T

CA FID UST:

Facility ID:	33006165
Regulated By:	UTNKA
Regulated ID:	00002173
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2139239876
Mail To:	Not reported
Mailing Address:	10000 LAKEWOOD BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	RIVERSIDE 92506
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported

THRIFTY OIL #342 (Continued) **S101590178**

Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 2173
Number: 1
Board Of Equalization: 44-010930
Referral Date: 11-19-92
Action Date: 11-19-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: 342-1
Swrcb Tank Id: 33-000-002173-000001
Actv Date: 11-19-92
Capacity: 8000
Tank Use: M.V. FUEL
Stg: P
Content: LEADED
Number Of Tanks: 5

Status: Active
Comp Number: 2173
Number: 1
Board Of Equalization: 44-010930
Referral Date: 11-19-92
Action Date: 11-19-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: 342-2
Swrcb Tank Id: 33-000-002173-000002
Actv Date: 11-19-92
Capacity: 15000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 2173
Number: 1
Board Of Equalization: 44-010930
Referral Date: 11-19-92
Action Date: 11-19-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: 342-3
Swrcb Tank Id: 33-000-002173-000003
Actv Date: 11-19-92
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 2173

THRIFTY OIL #342 (Continued) **S101590178**

Number:	1
Board Of Equalization:	44-010930
Referral Date:	11-19-92
Action Date:	11-19-92
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	342-6
Swrcb Tank Id:	33-000-002173-000004
Actv Date:	11-19-92
Capacity:	8000
Tank Use:	M.V. FUEL
Stg:	P
Content:	LEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	2173
Number:	1
Board Of Equalization:	44-010930
Referral Date:	11-19-92
Action Date:	11-19-92
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	342-10
Swrcb Tank Id:	33-000-002173-000005
Actv Date:	11-19-92
Capacity:	280
Tank Use:	OIL
Stg:	W
Content:	WASTE OIL
Number Of Tanks:	Not reported

C12 **THRIFTY OIL #342 ARCO #9712** **LUST** **S103950773**
West **3570 CENTRAL AVE** **N/A**
1/4-1/2 **RIVERSIDE, CA**
0.372 mi.
1966 ft. **Site 3 of 3 in cluster C**

Relative:
Lower

Actual:
838 ft.

LUST:

Region:	STATE
Global Id:	T0606500541
Latitude:	33.9533044
Longitude:	-117.3901364
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/26/2010
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	YR
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	083303273T
LOC Case Number:	980444
File Location:	Local Agency
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	In July-August 1997, a site investigation was conducted which consisted of drilling and sampling six soil borings (TDD-1 through TDD-6), and collecting soil samples from beneath each product dispensers. Upon completion of drilling activities, one of the

THRIFTY OIL #342 ARCO #9712 (Continued) **S103950773**

borings (TDD-3) was converted to a groundwater monitoring well. Groundwater was encountered at approximately 75 feet below ground surface (bgs) during drilling. Soil samples collected from borings did not indicate any detectable TPHg or benzene concentrations; however, MTBE was detected in soil samples collected from borings TDD-2 and TDD-5 at concentrations up to 4.2 mg/kg (TDD-5 at 25'). Soil samples collected from beneath the dispenser islands indicated up to 11 mg/kg TPHg with non-detectable benzene or MTBE. Groundwater sample analysis indicated 230 ppb TPHg, 3.6 ppb benzene, and 140 ppb MTBE. In March-April 1998, four underground storage tanks (USTs) and associated piping were removed from the site. Soil samples collected from beneath the former USTs indicated up to 7,500 mg/kg TPHg, 0.13 mg/kg MTBE, and non-detectable benzene. Soil samples collected from the dispenser area, indicated up to 1,200 mg/kg TPHg, 3 mg/kg benzene, and 26 mg/kg MTBE. As an interim remedial action, approximately 1,190 tons of hydrocarbon-impacted soil was excavated. In February 1999, soil and groundwater investigation was conducted to further define the extent of hydrocarbon-impacted soil and groundwater beneath the site. Six soil borings (TOC- 1 1 through TOC-16) were advanced near the dispenser and the former USTs area, and around the periphery of the site. Three borings (TOC-11 through TOC-13) were advanced to depths of 80 feet bgs and converted to monitoring wells, and the remaining borings (TOC-14 through TOC-16) were drilled to depths ranging from 70 to 80 feet bgs. Groundwater was encountered at approximately 70 feet bgs during drilling. Soil analytical results indicated that hydrocarbon-impacted soil was not detected in soil borings TOC-12 through TOC-16; however, small amounts of MTBE were detected in these borings at concentrations up to 0.49 mg/kg (TOC-13 at 65'). Soil samples collected from boring TOC-1 1 at depths of 20 to 25 feet bgs indicated up to 7,700 mg/kg TPHg, 16 mg/kg benzene, and 50 mg/kg MTBE. Groundwater sample analyses indicated TPHg concentrations ranging from non-detectable (ND; TOC- 12) to 5,600 ppb (TOC- 1 1); benzene concentrations ranged from ND (TOC-12) to 140 ppb (TOC-11); and MTBE concentrations ranged from 55 ppb (TOC-12) to 7,900 ppb (TOC-11). On March 17, 1999, a quarterly groundwater monitoring and sampling program was initiated. In June 2000, an additional site investigation was conducted which consisted of installing three off-site (TOC- 16A through TOC- 1 8) and one on-site (TOC- 1 9) groundwater monitoring wells to depths ranging from 80 to 82 feet bgs. Soil and groundwater sample analyses did not indicate any detectable TPHg, benzene, or MTBE in any of the soil or groundwater samples analyzed, with exception of one groundwater sample collected from TOC-17, which contained 132 ppb MTBE. In May 2001, one nested multiple completion well (VW-1) and one groundwater monitoring well (TOC-20) were installed at the site. Laboratory results of soil sample analyses indicated up to 8.5 mg/kg TPHg (TOC-20 at 10') and 6.67 mg/kg MTBE (TOC-20 at 80') with nondetectable benzene. Groundwater sample collected from TOC-20 indicated 555 ppb TPHg, 33,200 ppb MTBE with non-detectable benzene. In June 2001, following the completion of well installation and sampling activities, a vapor extraction study was conducted using each section of the newly installed vapor extraction well (VW-1) and well TOC-11 as independent extraction points. In March 2002, groundwater over-purging using wells TOC-11 and TOC-20 was initiated. Overpurging was conducted once a week for approximately 6 hours per visit. Over-purging was temporarily terminated after 4 visits for evaluation and resumed i

THRIFTY OIL #342 ARCO #9712 (Continued) **S103950773**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500541
Contact Type:	Local Agency Caseworker
Contact Name:	YVONNE REYES
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	ayreyes@rivcocha.org
Phone Number:	9519558982

Global Id:	T0606500541
Contact Type:	Regional Board Caseworker
Contact Name:	VALERIE JAHN-BULL
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	vjahn-bull@waterboards.ca.gov
Phone Number:	9517824903

Regulatory Activities:

Global Id:	T0606500541
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0606500541
Action Type:	RESPONSE
Date:	06/30/2009
Action:	Clean Up Fund - 5-Year Review Summary

Global Id:	T0606500541
Action Type:	RESPONSE
Date:	04/15/2008
Action:	Monitoring Report - Quarterly

Global Id:	T0606500541
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T0606500541
Action Type:	RESPONSE
Date:	10/15/2009
Action:	Monitoring Report - Quarterly

Global Id:	T0606500541
Action Type:	RESPONSE
Date:	04/15/2010
Action:	Monitoring Report - Quarterly

Global Id:	T0606500541
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

THRIFTY OIL #342 ARCO #9712 (Continued) **S103950773**

Global Id: T0606500541
Action Type: ENFORCEMENT
Date: 07/26/2010
Action: Closure/No Further Action Letter - #RCDEH Closure

Global Id: T0606500541
Action Type: ENFORCEMENT
Date: 07/25/2010
Action: File review - #RCDEH Upload Site File 11/18/2010

Global Id: T0606500541
Action Type: ENFORCEMENT
Date: 11/01/2007
Action: Staff Letter - #RCDEH110107

Global Id: T0606500541
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Quarterly

Global Id: T0606500541
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606500541
Action Type: RESPONSE
Date: 06/25/2010
Action: Well Destruction Report

Global Id: T0606500541
Action Type: ENFORCEMENT
Date: 04/22/2008
Action: Staff Letter - #RCDEH042208

Global Id: T0606500541
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606500541
Action Type: RESPONSE
Date: 06/20/2008
Action: Other Report / Document

Global Id: T0606500541
Action Type: ENFORCEMENT
Date: 02/27/2008
Action: Technical Correspondence / Assistance / Other - #RCDEH 022708

Global Id: T0606500541
Action Type: ENFORCEMENT
Date: 08/21/2006
Action: Technical Correspondence / Assistance / Other - #RCDEH 082106

Global Id: T0606500541
Action Type: RESPONSE

THRIFTY OIL #342 ARCO #9712 (Continued) **S103950773**

Date:	07/18/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0606500541
Action Type:	RESPONSE
Date:	10/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0606500541
Action Type:	ENFORCEMENT
Date:	11/27/2007
Action:	File review
Global Id:	T0606500541
Action Type:	RESPONSE
Date:	01/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0606500541
Action Type:	RESPONSE
Date:	01/28/2010
Action:	Clean Up Fund - 5-Year Review Summary
Global Id:	T0606500541
Action Type:	REMEDIATION
Date:	01/01/1950
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0606500541
Action Type:	ENFORCEMENT
Date:	05/06/2010
Action:	Staff Letter - #RCDEH050610
Global Id:	T0606500541
Action Type:	ENFORCEMENT
Date:	08/13/2009
Action:	Staff Letter - #RCDEH081309
Global Id:	T0606500541
Action Type:	RESPONSE
Date:	07/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0606500541
Action Type:	RESPONSE
Date:	01/11/2008
Action:	Other Report / Document
Global Id:	T0606500541
Action Type:	RESPONSE
Date:	10/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0606500541
Action Type:	REMEDIATION
Date:	01/01/1950
Action:	Excavation

THRIFTY OIL #342 ARCO #9712 (Continued) **S103950773**

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	980444
Employee:	Reyes-LOP
Site Closed:	Yes
Case Type:	Drinking Water Aquifer affected
Facility Status:	closed/action completed

D13 **DIGAS** **LUST U001576448**
South **3333 ARLINGTON AVE** **HIST UST N/A**
1/4-1/2 **RIVERSIDE, CA 92506**
0.444 mi.
2344 ft. **Site 1 of 3 in cluster D**

Relative:
Higher

Actual:
876 ft.

LUST:

Region:	STATE
Global Id:	T0606500269
Latitude:	33.947441
Longitude:	-117.382468
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	04/02/2004
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	SCB
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	083302039T
LOC Case Number:	92371
File Location:	Local Agency Warehouse
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500269
Contact Type:	Regional Board Caseworker
Contact Name:	TOM E. MBEKE-EKANEM
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	tmbeke-ekanem@waterboards.ca.gov
Phone Number:	9513202007

Global Id:	T0606500269
Contact Type:	Local Agency Caseworker
Contact Name:	SHARON BOLTINGHOUSE
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	sbolting@rivcocha.org
Phone Number:	9519558982

Regulatory Activities:

Global Id:	T0606500269
Action Type:	Other
Date:	01/01/1950

DIGAS (Continued) **U001576448**

Action: Leak Discovery

Global Id: T0606500269
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0606500269
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0606500269
Action Type: ENFORCEMENT
Date: 04/02/2004
Action: Closure/No Further Action Letter - #Riv Co Closure

Global Id: T0606500269
Action Type: ENFORCEMENT
Date: 04/01/2004
Action: File review - #RCDEH Upload Site File 5/19/2010

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 92371
Employee: Boltinghous-LOP
Site Closed: Yes
Case Type: Drinking Water Aquifer affected
Facility Status: closed/action completed

HIST UST:
Region: STATE
Facility ID: 00000029948
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0003
Contact Name: HENSLEY BARBOUR
Telephone: 2132782160
Owner Name: TESORO GASOLINE MARKETING CO.
Owner Address: 9201 W. OLYMPIC BLVD.
Owner City,St,Zip: BEVERLY HILLS, CA 90212

Tank Num: 001
Container Num: 1
Year Installed: 1970
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 3
Year Installed: 1970
Tank Capacity: 00012000

DIGAS (Continued) **U001576448**

Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 2
Year Installed: 1970
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: 1/4 inches
Leak Detection: Stock Inventor

D14 **ALAMEDA MANAGMENT #542/ TESORO** **LUST** **S103464039**
South **3333 ARLINGTON AVE** **N/A**
1/4-1/2 **RIVERSIDE, CA 92506**
0.444 mi.
2344 ft. **Site 2 of 3 in cluster D**

Relative:
Higher

Actual:
876 ft.

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083302039T
Local Case Num: 92371
Case Type: Aquifer affected
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: INDIANA
Enf Type: Not reported
Funding: Not reported
How Discovered: Not reported
How Stopped: Not reported
Leak Cause: UNK
Leak Source: Piping
Global ID: T0606500269
How Stopped Date: 4/15/1992
Enter Date: 6/22/1992
Review Date: 4/15/1992
Prelim Assess: 5/26/1993
Discover Date: 4/15/1992
Enforcement Date: Not reported
Close Date: 4/2/2004
Workplan: 7/6/1992
Pollution Char: 7/27/1993
Remed Plan: Not reported
Remed Action: 12/9/2002
Monitoring: Not reported
Enter Date: 6/22/1992
GW Qualifies: ND
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: LUST

ALAMEDA MANAGMENT #542/ TESORO (Continued) **S103464039**

Latitude:	33.9464406
Longitude:	-117.383015
MTBE Date:	3/21/2003
Max MTBE GW:	1
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	TME
Staff Initials:	SCB
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	FORMER CALIFORNIA TARGET SITE (ALAMEDA MANAGEMENT) 11/95, PAH.

D15 **ALAMEDA #542** **HIST CORTESE** **S101631125**
South **3333 ARLINGTON AVE** **CA FID UST** **N/A**
1/4-1/2 **RIVERSIDE, CA 92506** **SWEEPS UST**
0.444 mi.
2344 ft. **Site 3 of 3 in cluster D**

Relative:
Higher

Actual:
876 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	083302039T

CA FID UST:

Facility ID:	33000327
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7146839453
Mail To:	Not reported
Mailing Address:	PO BOX 1392
Mailing Address 2:	Not reported
Mailing City,St,Zip:	RIVERSIDE 92506
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Active
Comp Number:	45091
Number:	1
Board Of Equalization:	Not reported
Referral Date:	06-15-92

ALAMEDA #542 (Continued) **S101631125**

Action Date:	06-15-92
Created Date:	07-13-90
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	33-000-045091-000001
Actv Date:	06-15-92
Capacity:	12000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	3

Status:	Active
Comp Number:	45091
Number:	1
Board Of Equalization:	Not reported
Referral Date:	06-15-92
Action Date:	06-15-92
Created Date:	07-13-90
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	33-000-045091-000002
Actv Date:	06-15-92
Capacity:	12000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	45091
Number:	1
Board Of Equalization:	Not reported
Referral Date:	06-15-92
Action Date:	06-15-92
Created Date:	07-13-90
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	33-000-045091-000003
Actv Date:	06-15-92
Capacity:	12000
Tank Use:	M.V. FUEL
Stg:	P
Content:	LEADED
Number Of Tanks:	Not reported

E16 **915** **LUST** **U001576438**
SSW **3417 ARLINGTON AVE** **HIST UST** **N/A**
1/4-1/2 **RIVERSIDE, CA 92506**
0.463 mi.
2445 ft. **Site 1 of 3 in cluster E**

Relative:
Higher

Actual:
869 ft.

LUST:

Region:	STATE
Global Id:	T0606500505
Latitude:	33.94656
Longitude:	-117.386129
Case Type:	LUST Cleanup Site

915 (Continued) **U001576438**

Status:	Completed - Case Closed
Status Date:	11/01/2002
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	SCB
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	083303058T
LOC Case Number:	970856
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500505
Contact Type:	Local Agency Caseworker
Contact Name:	SHARON BOLTINGHOUSE
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	sbolting@rivcocha.org
Phone Number:	9519558982

Global Id:	T0606500505
Contact Type:	Regional Board Caseworker
Contact Name:	TOM E. MBEKE-EKANEM
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	tmbeke-ekanem@waterboards.ca.gov
Phone Number:	9513202007

Regulatory Activities:

Global Id:	T0606500505
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0606500505
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T0606500505
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

Global Id:	T0606500505
Action Type:	ENFORCEMENT
Date:	10/31/2002
Action:	File review - #RCDEH Upload Site File 6/3/2010

Global Id:	T0606500505
Action Type:	ENFORCEMENT
Date:	11/01/2002

915 (Continued) **U001576438**

Action: Closure/No Further Action Letter - #Riv Co Closure

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 970856
Employee: Boltinghous-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed

HIST UST:
Region: STATE
Facility ID: 00000013445
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0004
Contact Name: Not reported
Telephone: 2139275339
Owner Name: P & M SERVICE STATIONS
Owner Address: 12739 LAKEWOOD BLVD.
Owner City,St,Zip: DOWNEY, CA 90242

Tank Num: 001
Container Num: 915-1
Year Installed: Not reported
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 915-2
Year Installed: Not reported
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 915-3
Year Installed: Not reported
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor

Tank Num: 004
Container Num: 915-4
Year Installed: Not reported
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: DIESEL

915 (Continued) **U001576438**

Tank Construction: Not reported
Leak Detection: Stock Inventor

E17
SSW
1/4-1/2
0.463 mi.
2445 ft.

RIVERSIDE MARKETING #5
3417 ARLINGTON AVE
RIVERSIDE, CA 92506
Site 2 of 3 in cluster E

HIST CORTESE
LUST
CA FID UST
SWEEPS UST

S101589962
N/A

Relative:
Higher

Actual:
869 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	083303058T

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083303058T
Local Case Num:	970856
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	INDIANA
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0606500505
How Stopped Date:	Not reported
Enter Date:	9/19/1997
Review Date:	8/15/1997
Prelim Assess:	Not reported
Discover Date:	8/15/1997
Enforcement Date:	Not reported
Close Date:	11/1/2002
Workplan:	1/1/1990
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	Not reported
Monitoring:	Not reported
Enter Date:	9/19/1997
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.9463936
Longitude:	-117.3858101
MTBE Date:	Not reported
Max MTBE GW:	Not reported

RIVERSIDE MARKETING #5 (Continued) **S101589962**

MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 1
MTBE Tested: Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class: *
Staff: TME
Staff Initials: UNK
Lead Agency: Local Agency
Local Agency: 33000L
Hydr Basin #: UPPER SANTA ANA VALL
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

CA FID UST:
Facility ID: 33001823
Regulated By: UTNKA
Regulated ID: 00013445
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2139275339
Mail To: Not reported
Mailing Address: 2805 KATHLEEN ST
Mailing Address 2: Not reported
Mailing City,St,Zip: RIVERSIDE 92506
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 13445
Number: 1
Board Of Equalization: 44-017967
Referral Date: 03-10-93
Action Date: 03-10-93
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 33-000-013445-000001
Actv Date: 03-10-93
Capacity: 8000
Tank Use: M.V. FUEL
Stg: P
Content: DIESEL
Number Of Tanks: 3

Status: Active
Comp Number: 13445
Number: 1

RIVERSIDE MARKETING #5 (Continued) **S101589962**

Board Of Equalization:	44-017967
Referral Date:	03-10-93
Action Date:	03-10-93
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	33-000-013445-000002
Actv Date:	03-10-93
Capacity:	8000
Tank Use:	M.V. FUEL
Stg:	P
Content:	PRM UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	13445
Number:	1
Board Of Equalization:	44-017967
Referral Date:	03-10-93
Action Date:	03-10-93
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	33-000-013445-000003
Actv Date:	03-10-93
Capacity:	8000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

E18
SSW
1/4-1/2
0.484 mi.
2554 ft.

Relative:
Higher

Actual:
869 ft.

UNOCAL #4628 **LUST** **S104539440**
3434 ARLINGTON **N/A**
RIVERSIDE, CA 92506

Site 3 of 3 in cluster E

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083303723T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	Indiana
Enf Type:	CLOS
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	UNK
Global ID:	T0606599029
How Stopped Date:	9/19/1997
Enter Date:	6/21/2000

UNOCAL #4628 (Continued) **S104539440**

Review Date:	6/21/2000
Prelim Assess:	Not reported
Discover Date:	9/19/1997
Enforcement Date:	Not reported
Close Date:	10/2/2003
Workplan:	Not reported
Pollution Char:	Not reported
Remed Plan:	Not reported
Remed Action:	4/24/1998
Monitoring:	Not reported
Enter Date:	6/21/2000
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.946263
Longitude:	-117.377884
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	NOM
Staff Initials:	Not reported
Lead Agency:	Regional Board
Local Agency:	Not reported
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	No

Summary: Not reported

19
NW
1/2-1
0.668 mi.
3527 ft.

JEFFERIES TRANSFORMERS COMPANY **ENVIROSTOR** **S100202043**
3765 JURUPA AVENUE **N/A**
RIVERSIDE, CA 92506

Relative:
Lower

Actual:
841 ft.

ENVIROSTOR:

Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0.02
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	* Greg Holmes
Division Branch:	Cleanup Cypress
Facility ID:	33360013
Site Code:	Not reported
Assembly:	61
Senate:	31
Special Program:	Not reported

JEFFERIES TRANSFORMERS COMPANY (Continued) **S100202043**

Status: No Further Action
Status Date: 04/01/1985
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: EPA Grant
Latitude: 33.96083
Longitude: -117.3908
APN: NONE SPECIFIED
Past Use: MANUFACTURING - OTHER
Potential COC: 30018
Confirmed COC: 30018-NO
Potential Description: SOIL
Alias Name: NEILS T. SORENSON REALTORS - SM COMPLEX
Alias Type: Alternate Name
Alias Name: CAD980884886
Alias Type: EPA Identification Number
Alias Name: 33360013
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 04/01/1985
Comments: SOURCE ACT: TRANSFORMER MFG PAST OWNER: DR. ROBERT JOSEPH (TILL 1978 NO RECORDS ON THIS SITE AT AGENCIES. SUBMIT TO EPA PRELIM ASSESS DONE CERCLA 104

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 01/04/1983
Comments: FACILITY IDENTIFIED ID FROM OLD PHONE BOOK SEARCH -1963 TRANSFORMER MFG

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

---

20 WNW 1/2-1 0.679 mi. 3586 ft.

Relative: Lower

Actual: 839 ft.

BOURNS INSTRUMENTS INC
6135 MAGNOLIA AVE
RIVERSIDE, CA 92506

RCRA-TSDF 1000365482
CERC-NFRAP CAD096883434
CORRACTS
RCRA-SQG
FINDS
ENVIROSTOR
HWP

RCRA-TSDF:
Date form received by agency: 09/01/1996
Facility name: BOURNS INSTRUMENTS INC
Facility address: 6135 MAGNOLIA AVE
RIVERSIDE, CA 92506

BOURNS INSTRUMENTS INC (Continued) **1000365482**

EPA ID: CAD096883434
Mailing address: 6135 MAGNOLIA AVENUE
RIVERSIDE, CA 92506
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: TSDF
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste

Owner/Operator Summary:
Owner/operator name: BOURNS INSTRUMENTS INC.
Owner/operator address: 6135 MAGNOLIA AVENUE
CITY NOT REPORTED, CA 99999
Owner/operator country: Not reported
Owner/operator telephone: (714) 781-5388
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: BOURNS, IND.
Owner/operator address: 1200 COLUMBIA AVENUE
RIVERSIDE, CA 92507
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 04/12/1990
Facility name: BOURNS INSTRUMENTS INC

BOURNS INSTRUMENTS INC (Continued) **1000365482**

Site name: BOURNS INSTRUMENTS INC.
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Facility name: BOURNS INSTRUMENTS INC
Classification: Large Quantity Generator

Corrective Action Summary:
Event date: 01/01/1990
Event: CA029ST

Event date: 08/14/1991
Event: CA029ST

Event date: 08/14/1991
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Event date: 08/14/1991
Event: CA049PA

Event date: 08/14/1991
Event: CA074LO

Facility Has Received Notices of Violations:
Regulation violated: F - 268 ALL
Area of violation: LDR - General
Date violation determined: 05/23/1988
Date achieved compliance: 08/17/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/30/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 268.7
Area of violation: LDR - General
Date violation determined: 05/23/1988
Date achieved compliance: 08/17/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/30/1989
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 270
Area of violation: TSD - General
Date violation determined: 05/23/1988

BOURNS INSTRUMENTS INC (Continued) **1000365482**

Date achieved compliance: 08/17/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/15/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 05/19/1988
Date achieved compliance: 01/13/1989
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/26/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 05/23/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 08/17/1988
Evaluation lead agency: State

Evaluation date: 05/23/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: TSD - General
Date achieved compliance: 08/17/1988
Evaluation lead agency: State

Evaluation date: 05/19/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 01/13/1989
Evaluation lead agency: State

CERC-NFRAP:
Site ID: 0903379
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: Deferred to RCRA

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13050538.00000
Person ID: 9271184.00000

Contact Sequence ID: 13290516.00000
Person ID: 13003854.00000

BOURNS INSTRUMENTS INC (Continued) **1000365482**

Contact Sequence ID: 13296111.00000
Person ID: 13003858.00000

Contact Sequence ID: 13301969.00000
Person ID: 13004003.00000

Program Priority:
Description: RCRA Deferral Audit

Description: RCRA Deferral - Lead Confirmed

Description: RCRA Deferral - Further Superfund Assessment

CERCLIS-NFRAP Assessment History:
Action: ARCHIVE SITE
Date Started: / /
Date Completed: 01/23/96
Priority Level: Not reported

Action: DISCOVERY
Date Started: / /
Date Completed: 04/01/91
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 08/23/91
Priority Level: Deferred to RCRA (Subtitle C)

CORRACTS:

EPA ID: CAD096883434
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19910814
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
NAICS Code(s): 334519
Other Measuring and Controlling Device Manufacturing
Original schedule date: Not reported
Schedule end date: Not reported

FINDS:

Registry ID: 110002665198

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

BOURNS INSTRUMENTS INC (Continued) **1000365482**

ENVIROSTOR:
Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Mmonroy
Division Branch: Cleanup Cypress
Facility ID: 33360001
Site Code: 400210
Assembly: 61
Senate: 31
Special Program: Not reported
Status: Refer: RCRA
Status Date: 05/10/1995
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 33.95861
Longitude: -117.3930
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD096883434
Alias Type: EPA Identification Number
Alias Name: 110002665198
Alias Type: EPA (FRS #)
Alias Name: 400210
Alias Type: Project Code (Site Code)
Alias Name: 33360001
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 02/09/1995
Comments: NFA FOR SITE MITIGATION OPERATIONS, THIS IS A RCRA FACILITY.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 03/12/1987
Comments: SITE SCREENING DONE MORE INFO NEEDED

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 12/17/1982
Comments: FACILITY IDENTIFIED ID FROM OLD PHONE BOOK SEARCH 1960 POSSIBLE ELCTRONICS MANUFACTURERS

Future Area Name: Not reported

BOURNS INSTRUMENTS INC (Continued) **1000365482**

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

Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 0
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: MBR
Program Manager: Not reported
Supervisor: * Unknown
Division Branch: Cleanup Cypress
Facility ID: 80001726
Site Code: Not reported
Assembly: 61
Senate: 31
Special Program: Not reported
Status: * Inactive
Status Date: 01/01/2008
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 33.95890
Longitude: -117.3929
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD096883434
Alias Type: EPA Identification Number
Alias Name: 110002665198
Alias Type: EPA (FRS #)
Alias Name: 33360001
Alias Type: Envirostor ID Number
Alias Name: 80001726
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 08/08/1991
Comments: USEPA conducted a PA for the site. It looks as no further corrective action work was done.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Order
Completed Date: 08/08/1991
Comments: Not reported

BOURNS INSTRUMENTS INC (Continued) **1000365482**

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

HWP:
EPA Id: CAD096883434
Cleanup Status: CLOSED
Latitude: 33.95890
Longitude: -117.3929
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: Not reported
Assembly District: 61
Senate District: 31
Public Information Officer: Not reported

Activities:
EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - APPLICATION PART B RECEIVED
Actual Date: 04/25/1983

EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - PERMIT TERMINATED - TERMINATION APPROVED
Actual Date: 03/13/1990

EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 12/23/1980

EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - TECHNICAL COMPLETE LETTER
Actual Date: 05/18/1984

EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - FINAL PERMIT (EXPIRES)
Actual Date: 08/22/1989

EPA Id: CAD096883434
Facility Type: Historical - Non-Operating

BOURNS INSTRUMENTS INC (Continued) **1000365482**

Unit Names: CONTAIN1
Event Description: New Operating Permit - PERMIT TERMINATED - TERMINATION RECEIVED
Actual Date: 11/17/1988

EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - CALL-IN LETTER ISSUED
Actual Date: 03/10/1983

EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - FINAL PERMIT (EFFECTIVE)
Actual Date: 08/22/1984

EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - PUBLIC COMMENT (BEGIN)
Actual Date: 03/01/1984

EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - FINAL PERMIT
Actual Date: 08/22/1984

Closure:
EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: Closure Final - ISSUE CLOSURE VERIFICATION
Actual Date: 03/30/1990

EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: Closure Final - RECEIVE CLOSURE CERTIFICATION
Actual Date: 03/20/1990

Alias:
EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Alias Type: Envirostor ID Number
Alias: 33360001

EPA Id: CAD096883434
Facility Type: Historical - Non-Operating
Alias Type: FRS
Alias: 110002665198

21
West
1/2-1
0.750 mi.
3962 ft.

76 STATION 5745
6575 BROCKTON
RIVERSIDE, CA 92506

LUST **S100179331**
Notify 65 **N/A**

Relative:
Lower

Actual:
827 ft.

LUST:

Region:	STATE
Global Id:	T0606500158
Latitude:	33.953813505
Longitude:	-117.3968376
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/21/1992
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	SCB
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	083301336T
LOC Case Number:	89997
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	A second release was reported in 2009. RCDEH site #200929077.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500158
Contact Type:	Local Agency Caseworker
Contact Name:	SHARON BOLTINGHOUSE
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	sbolting@rivcocha.org
Phone Number:	9519558982

Global Id:	T0606500158
Contact Type:	Regional Board Caseworker
Contact Name:	NANCY OLSON-MARTIN
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	nolson-martin@waterboards.ca.gov
Phone Number:	Not reported

Regulatory Activities:

Global Id:	T0606500158
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0606500158
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

Global Id:	T0606500158
Action Type:	ENFORCEMENT
Date:	01/21/1992

76 STATION 5745 (Continued) **S100179331**

Action:	Closure/No Further Action Letter - #RCDEH0121992
Global Id:	T0606500158
Action Type:	ENFORCEMENT
Date:	01/20/1992
Action:	File review - #RCDEH Upload Site File 12/21/2010
Region:	STATE
Global Id:	T10000000935
Latitude:	33.9537373373764
Longitude:	-117.397155761719
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/15/2010
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	YR
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	200929077
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel, Gasoline
Site History:	This is the second LOP case at this site. The first LOP case #89997 was closed in 1993. Site History/Release Information: September 2002: Soil sampling was performed in conjunction with product piping and dispenser upgrades. Sixteen (16) soil samples were collected at a maximum depth of 10 feet bgs. Soil samples from the dispenser islands were non-detect for TPHg, benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary butyl ether (MTBE), and other fuel oxygenates. Soil samples from the product lines contained maximum TPHg and BTEX concentrations of 5,900 ppm, 22 ppm, 850 ppm, 210 ppm and 940 ppm, respectively in PL4 at 4 ft bgs. The remaining soil samples did not contain BTEX concentrations. Concentrations of fuel oxygenates were not reported above laboratory detection limits. On February 24, 2009, County of Riverside Department of Environmental Health (CRDEH) received the Results of Soil Sampling Product Piping and Dispenser Upgrades, SECOR, November 22, 2002) that summarized the results of soil sampling performed during piping and dispenser upgrades. October/November 2007: Seven soil borings (B-1 through B-6 and B-1-A) were advanced near the existing gasoline USTs and fuel dispenser s for a baseline assessment of property conditions at the time of property transfer. The borings were advanced to approximately 20 to 36 feet bgs. TPHd was detected at a maximum concentration of 6.2 ppm in boring B-1 at 15 ft bgs, benzene was detected at a maximum concentration of 0.0030 ppm in boring B-4 at 25 ft bgs, and toluene was detected at a maximum concentration of 0.0024 ppm in boring B-4 at 25 ft bgs. No other constituents were detected. The site was entered into LOP for further assessment based on finding from the 2002 sampling. Assessment /Verification: August 2009: Four soil borings (B-7 through B-10) were advanced to assess the vertical and lateral extent of petroleum hydrocarbon impact near soil borings B-1 and B-4. Soil boring B-7 was advanced to approximately16.5 ft bgs and soil borings B-8 through B-10 were advanced to approximately 55 ft bgs. Soil samples were analyzed for TPHg, TPHd, VOCs, and ethanol. Benzene was detected at a maximum concentration of 0.57J ppb (B-8 @51 ft bgs). Toluene was detected at a maximum concentration of 0.98J ppb

76 STATION 5745 (Continued) **S100179331**

(B-8@51ft). Naphthalene was detected at a maximum concentration of 0.95J ppb (B-9@50ft bgs). Acetone was detected at a maximum concentration of 9.6 ppb (B-10@25 ft bgs). No other constituents were detected. Regional Board closure concurrence was obtained and case was closed.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T10000000935
Contact Type:	Local Agency Caseworker
Contact Name:	YVONNE REYES
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	ayreyes@rivcocha.org
Phone Number:	9519558982

Global Id:	T10000000935
Contact Type:	Regional Board Caseworker
Contact Name:	NANCY OLSON-MARTIN
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	nolson-martin@waterboards.ca.gov
Phone Number:	Not reported

Regulatory Activities:

Global Id:	T10000000935
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

Global Id:	T10000000935
Action Type:	RESPONSE
Date:	07/15/2009
Action:	Monitoring Report - Quarterly

Global Id:	T10000000935
Action Type:	ENFORCEMENT
Date:	03/31/2009
Action:	Letter - Notice - #RCDEH033109

Global Id:	T10000000935
Action Type:	ENFORCEMENT
Date:	03/23/2009
Action:	Notification - Proposition 65 - #RCDEH032309Prop65

Global Id:	T10000000935
Action Type:	ENFORCEMENT
Date:	03/31/2009
Action:	Letter - Notice - #RCDEH033109

Global Id:	T10000000935
Action Type:	ENFORCEMENT
Date:	08/17/2009
Action:	Staff Letter - #RCDEH081709

76 STATION 5745 (Continued) **S100179331**

Global Id:	T10000000935
Action Type:	RESPONSE
Date:	10/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T10000000935
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped
Global Id:	T10000000935
Action Type:	RESPONSE
Date:	01/15/2010
Action:	Monitoring Report - Quarterly
Global Id:	T10000000935
Action Type:	RESPONSE
Date:	09/15/2009
Action:	Other Report / Document
Global Id:	T10000000935
Action Type:	ENFORCEMENT
Date:	03/31/2009
Action:	Staff Letter - #RCDEH033109
Global Id:	T10000000935
Action Type:	ENFORCEMENT
Date:	11/22/2002
Action:	File review
Global Id:	T10000000935
Action Type:	RESPONSE
Date:	06/01/2009
Action:	Preliminary Site Assessment Workplan
Global Id:	T10000000935
Action Type:	ENFORCEMENT
Date:	07/17/2009
Action:	Staff Letter - #RCDEH071709
Global Id:	T10000000935
Action Type:	ENFORCEMENT
Date:	04/01/2009
Action:	Notice of Responsibility - #RCDEH040109NOR
Global Id:	T10000000935
Action Type:	ENFORCEMENT
Date:	03/31/2009
Action:	Letter - Notice - #RCDEH033109
Global Id:	T10000000935
Action Type:	ENFORCEMENT
Date:	06/15/2010
Action:	Closure/No Further Action Letter - #RCDEH Closure
Global Id:	T10000000935
Action Type:	Other

76 STATION 5745 (Continued) **S100179331**

Date: 01/01/1950
Action: Leak Discovery

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 89997
Employee: Whitehead
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed

Region: RIVERSIDE
Facility ID: 200929077
Employee: Reyes-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 90040

Count: 25 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BOX SPRINGS	1000213838	GENERAL TELEPHONE OF CA	OFF HWY	92507	RCRA-SQG, FINDS
RIVERSIDE	S112913798	MAGNOLIA MERRILL LLC	6280TH & 6290 MAGNOLIA AVE	92506	HAZNET
RIVERSIDE	S113182613	MICHAEL KEITH SMITH	25806 HWY 74		HAZNET
RIVERSIDE	S112927490	CALTRANS DIST 8/CONSTRUCTION	RT 91K	92506	HAZNET
RIVERSIDE	S104227906	TEXACO ARLINGTON	3518 ARLINGTON AVE	92506	LUST
RIVERSIDE	S109284939	UNOCAL #4628	3434 S ARLINGTON	92506	LUST
RIVERSIDE	S105940218	UNIV CAL RIVERSIDE 049387	CENTRAL STEAM PLANT-UCR	92507	EMI
RIVERSIDE	S109438845	CANYON SPRINGS LLC	CENTRAL AVE	92507	NPDES
RIVERSIDE	S113463595	CITY OF RIVERSIDE	599 CENTRAL AVE	92507	HAZNET
RIVERSIDE	S105025854	TEXACO SERVICE STATION	3675 CENTRAL AVE	92506	HIST CORTESE, LUST
RIVERSIDE	S106486916	RIVERSIDE PLUME	DOWNTOWN RIVERSIDE		SLIC
RIVERSIDE	S112831928	CITY OF RIVERSIDE GRANITE PIT MINE	FREEMONT ST & MOUNT VIEW AVE		SWF/LF
RIVERSIDE	S107538777		HILLTOP DR & CENTRAL		CDL
RIVERSIDE	S108985920	RIVERSIDE PLUME	N/A RIVERSIDE II BASIN		SLIC
RIVERSIDE	S113179169	RIVERSIDE COUNTY EMERGENCY RESPONS	RIVERSIDE ESPERANZA FIRE CORD		HAZNET
RIVERSIDE	S112846650	1X SPECIALIZED MOTOR SERVICE	RUBIDOUX BOULEVARD HWY		HAZNET
RIVERSIDE	S112888730	CAROL BUXBON	115 STATE 60	92507	HAZNET
RIVERSIDE	1009619572	344 N STATE APT 148	344 N STATE APT 148		US HIST CDL
RIVERSIDE	S109287719	LANDFILL,TEQUESQUITE-CLOSED	6253 TEQUESQUITE AVE		SWF/LF, LDS, Financial Assurance
RIVERSIDE	S104970783	UCR - PARKING LOT 6	UNIVERSITY OF CALIF RIVERSIDE		LUST
RIVERSIDE	S110654911	U C RIVERSIDE PARKING LOT #6	UNIVERSITY OF CA RIVERSIDE	92507	LUST
RIVERSIDE	S106841746	UNIV SO CAL RIV DEPT OF PHYSIC	USC RIVERSIDE, LOTHIAN HALL	92507	EMI
RIVERSIDE COUNTY	S107537885		BOX SPRINGS RD / HWY 215 (SE	0	CDL
RIVERSIDE COUNTY	M300002452	PACIFIC CLAY PRODS CO	RIVERSIDE COUNTY PITS (5 OPERA		US MINES
RIVERSIDE COUNTY	S107538951		IN VAN @ CENTRAL AVENUE AND CH	0	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: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 07/22/2013
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: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

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: 02/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: N/A
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS 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). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/04/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

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: 07/31/2012
Date Data Arrived at EDR: 10/09/2012
Date Made Active in Reports: 12/20/2012
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/10/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS 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 this 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. 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.

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 12

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 05/09/2013
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: 02/12/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 6

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
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: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
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: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
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: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

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: 03/14/2013
Date Data Arrived at EDR: 03/29/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
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: 03/14/2013
Date Data Arrived at EDR: 03/29/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

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: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/17/2013
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 29

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 04/02/2013
Next Scheduled EDR Contact: 07/15/2013
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: 05/06/2013
Date Data Arrived at EDR: 05/07/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 49

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/06/2013
Date Data Arrived at EDR: 05/07/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 49

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
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 inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/20/2013
Date Data Arrived at EDR: 05/21/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 35

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/21/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

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

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 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 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

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
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

SLIC: Statewide SLIC Cases

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: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
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

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

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 09/28/2012
Date Data Arrived at EDR: 11/01/2012
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 162

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/01/2013
Next Scheduled EDR Contact: 08/12/2013
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: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 02/06/2013
Date Data Arrived at EDR: 02/08/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 10

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-327-5092
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

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: 02/05/2013
Date Data Arrived at EDR: 02/06/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 65

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Quarterly

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: 02/21/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 45

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 12/31/2012
Date Data Arrived at EDR: 02/28/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 43

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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 Wisconsin and Tribal Nations).

Date of Government Version: 08/02/2012
Date Data Arrived at EDR: 08/03/2012
Date Made Active in Reports: 11/05/2012
Number of Days to Update: 94

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 02/06/2013
Date Data Arrived at EDR: 02/08/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 09/28/2012
Date Data Arrived at EDR: 11/07/2012
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 156

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

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: 04/18/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27
Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

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: 05/06/2013
Date Data Arrived at EDR: 05/07/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 49
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

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: 09/28/2012
Date Data Arrived at EDR: 10/02/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 14
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 04/05/2013
Next Scheduled EDR Contact: 07/15/2013
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: 12/10/2012
Date Data Arrived at EDR: 12/11/2012
Date Made Active in Reports: 12/20/2012
Number of Days to Update: 9
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: No Update Planned

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: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 04/26/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 20
Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 09/02/2013
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: 05/03/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

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: 03/04/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 59

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Quarterly

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: 05/06/2013
Date Data Arrived at EDR: 05/07/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 49

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 04/03/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

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: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

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: 02/06/2013
Date Data Arrived at EDR: 04/25/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/11/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/11/2013
Next Scheduled EDR Contact: 09/23/2013
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: 12/31/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 55

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 04/02/2013
Next Scheduled EDR Contact: 07/15/2013
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: 03/12/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 55

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 05/01/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 10

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 10

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

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: 02/12/2013
Date Data Arrived at EDR: 02/15/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 05/02/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, 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 Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/07/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

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: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 15

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
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: 12/31/2011
Date Data Arrived at EDR: 01/15/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 57

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

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: 12/18/2012
Date Data Arrived at EDR: 03/13/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 30

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/11/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 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: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

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: 02/05/2013
Date Data Arrived at EDR: 04/18/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/04/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 09/01/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 131

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Annually

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: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Every 4 Years

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
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
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 07/20/2011
Date Data Arrived at EDR: 11/10/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2012
Date Data Arrived at EDR: 01/16/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 114

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Annually

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: 06/21/2011
Date Data Arrived at EDR: 07/15/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 60

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/09/2013
Date Data Arrived at EDR: 04/11/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 29

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/11/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/23/2011
Date Data Arrived at EDR: 12/13/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 79

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/13/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Quarterly

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

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: 05/08/2012
Date Data Arrived at EDR: 05/25/2012
Date Made Active in Reports: 07/10/2012
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
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: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/30/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Biennially

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

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/20/2013
Date Data Arrived at EDR: 05/21/2013
Date Made Active in Reports: 06/12/2013
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/21/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Quarterly

UIC: UIC Listing

A listing of underground control injection wells.

Date of Government Version: 03/05/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/21/2013
Next Scheduled EDR Contact: 12/31/2012
Data Release Frequency: Varies

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 04/01/2013
Date Data Arrived at EDR: 04/02/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 42
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 04/02/2013
Next Scheduled EDR Contact: 07/15/2013
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

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: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: No Update Planned

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: 12/11/2012
Date Data Arrived at EDR: 12/12/2012
Date Made Active in Reports: 01/04/2013
Number of Days to Update: 23
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 12/24/2012
Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 04/29/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 17
Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
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.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 06/22/2012
Date Made Active in Reports: 07/06/2012
Number of Days to Update: 14

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
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: 12/31/2008
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 10/18/2010
Number of Days to Update: 19

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Varies

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: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 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: 05/06/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Quarterly

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
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/03/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 03/06/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 13
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 04/18/2013
Next Scheduled EDR Contact: 07/29/2013
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: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/14/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 31
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/16/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/28/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 29
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/29/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

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: 05/21/2013
Date Data Arrived at EDR: 05/22/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 36

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 05/03/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013
Date Data Arrived at EDR: 02/14/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

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: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/17/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: N/A

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 12/02/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 69
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 04/04/2013
Next Scheduled EDR Contact: 07/15/2013
Data Release Frequency: Quarterly

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Quarterly

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: 01/23/2013
Date Data Arrived at EDR: 01/30/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 100
Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/30/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 100
Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Annually

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: 12/31/2012
Date Data Arrived at EDR: 02/18/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 81
Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
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 US Hist Auto Stat: 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 US Hist Cleaners: 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 US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

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: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

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: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 30

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/28/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 30

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/28/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 04/04/2013
Number of Days to Update: 21

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 10/16/2012
Date Data Arrived at EDR: 10/17/2012
Date Made Active in Reports: 11/13/2012
Number of Days to Update: 27

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 04/29/2013
Data Release Frequency: Varies

CALVERAS COUNTY:

CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 04/16/2013
Date Data Arrived at EDR: 04/17/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 29

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 01/04/2013
Date Data Arrived at EDR: 01/14/2013
Date Made Active in Reports: 03/01/2013
Number of Days to Update: 46

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 06/13/2013
Next Scheduled EDR Contact: 08/26/2013
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: 04/09/2013
Date Data Arrived at EDR: 04/10/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 34

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/09/2013
Date Data Arrived at EDR: 01/10/2013
Date Made Active in Reports: 02/25/2013
Number of Days to Update: 46

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 05/20/2013
Date Data Arrived at EDR: 05/21/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 35

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/06/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

FRESNO COUNTY:

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: 03/31/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 30

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 05/01/2012
Date Data Arrived at EDR: 05/02/2012
Date Made Active in Reports: 06/11/2012
Number of Days to Update: 40

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/29/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/26/2012
Date Data Arrived at EDR: 06/27/2012
Date Made Active in Reports: 08/17/2012
Number of Days to Update: 51

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

KINGS 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: 02/12/2013
Date Data Arrived at EDR: 02/13/2013
Date Made Active in Reports: 03/21/2013
Number of Days to Update: 36

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/25/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 33

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
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: 05/10/2013
Next Scheduled EDR Contact: 07/01/2013
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 10/31/2012
Date Data Arrived at EDR: 12/28/2012
Date Made Active in Reports: 01/25/2013
Number of Days to Update: 28

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/24/2013
Date Data Arrived at EDR: 04/24/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 23

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/24/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 32

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 04/29/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 18

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 08/05/2013
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: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 31

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/15/2013
Next Scheduled EDR Contact: 07/29/2013
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: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 31

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 11/26/2012
Date Data Arrived at EDR: 11/28/2012
Date Made Active in Reports: 01/21/2013
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 05/28/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 27

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/08/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 17

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 03/14/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
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: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
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: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/08/2013
Date Data Arrived at EDR: 03/08/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 17

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 05/17/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2013
Date Data Arrived at EDR: 05/15/2013
Date Made Active in Reports: 06/12/2013
Number of Days to Update: 28

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2013
Date Data Arrived at EDR: 05/15/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 41

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2013
Date Data Arrived at EDR: 05/15/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 41

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/12/2013
Date Data Arrived at EDR: 03/13/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 14

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
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: 04/23/2013
Date Data Arrived at EDR: 04/24/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 23

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 04/23/2013
Date Data Arrived at EDR: 04/24/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 22

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 10/07/2013
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: 02/04/2013
Date Data Arrived at EDR: 04/11/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 33

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
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: 02/04/2013
Date Data Arrived at EDR: 04/12/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 34

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
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: 03/04/2013
Date Data Arrived at EDR: 03/05/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 20

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/13/2013
Next Scheduled EDR Contact: 08/26/2013
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: 08/17/2012
Date Data Arrived at EDR: 08/20/2012
Date Made Active in Reports: 10/03/2012
Number of Days to Update: 44

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2012
Date Data Arrived at EDR: 11/06/2012
Date Made Active in Reports: 11/30/2012
Number of Days to Update: 24

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/26/2013
Next Scheduled EDR Contact: 08/12/2013
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: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/10/2013
Next Scheduled EDR Contact: 08/26/2013
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: 03/25/2013
Date Data Arrived at EDR: 03/25/2013
Date Made Active in Reports: 04/18/2013
Number of Days to Update: 24
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/26/2013
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 27
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/09/2013
Date Data Arrived at EDR: 04/10/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 34

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/13/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/18/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
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: 05/20/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/05/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 20

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
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: 03/04/2013
Date Data Arrived at EDR: 03/06/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 19

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 06/03/2013
Next Scheduled EDR Contact: 09/16/2013
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 05/16/2013
Date Data Arrived at EDR: 05/17/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 39

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/13/2013
Next Scheduled EDR Contact: 08/26/2013
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 05/28/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 29

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 03/15/2013
Date Data Arrived at EDR: 03/15/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 12

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
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: 03/20/2013
Date Data Arrived at EDR: 03/28/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 47

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/12/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/20/2013
Date Data Arrived at EDR: 03/28/2013
Date Made Active in Reports: 05/13/2013
Number of Days to Update: 46

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/12/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 04/01/2013
Date Data Arrived at EDR: 04/03/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 41

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
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: 04/02/2013
Date Data Arrived at EDR: 04/03/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 41

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/13/2013
Date Data Arrived at EDR: 03/14/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 13

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/14/2013
Date Data Arrived at EDR: 01/16/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 42

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 05/15/2013
Next Scheduled EDR Contact: 07/29/2013
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: 04/26/2013
Date Data Arrived at EDR: 05/22/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 34

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 09/02/2013
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: 04/08/2013
Next Scheduled EDR Contact: 07/22/2013
Data Release Frequency: Annually

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: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
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: 01/28/2013
Date Data Arrived at EDR: 02/01/2013
Date Made Active in Reports: 03/20/2013
Number of Days to Update: 47
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 06/11/2013
Next Scheduled EDR Contact: 08/12/2013
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: 03/01/2013
Date Data Arrived at EDR: 03/28/2013
Date Made Active in Reports: 05/13/2013
Number of Days to Update: 46
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/12/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 03/25/2013
Date Data Arrived at EDR: 03/29/2013
Date Made Active in Reports: 05/13/2013
Number of Days to Update: 45
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/07/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 05/24/2013
Date Data Arrived at EDR: 05/24/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 34
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 05/20/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/20/2013
Date Data Arrived at EDR: 05/21/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 37
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/21/2013
Next Scheduled EDR Contact: 09/02/2013
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/19/2013
Next Scheduled EDR Contact: 07/29/2013
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: 02/01/2013
Date Data Arrived at EDR: 02/07/2013
Date Made Active in Reports: 03/15/2013
Number of Days to Update: 36

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/09/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/23/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 57

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/23/2013
Next Scheduled EDR Contact: 08/05/2013
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 06/22/2012
Date Made Active in Reports: 07/31/2012
Number of Days to Update: 39

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 09/27/2012
Number of Days to Update: 70

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/28/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: Rextag Strategies Corp.
Telephone: (281) 769-2247
U.S. Electric Transmission and Power Plants Systems Digital GIS Data

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, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

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.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

MAGNOLIA SUBSTATION
3416 CENTRAL AVENUE
RIVERSIDE, CA 92506

TARGET PROPERTY COORDINATES

Latitude (North):	33.9535 - 33° 57' 12.60''
Longitude (West):	117.3828 - 117° 22' 58.08''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	464629.1
UTM Y (Meters):	3756871.8
Elevation:	863 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	33117-H4 RIVERSIDE WEST, CA
Most Recent Revision:	1980
East Map:	33117-H3 RIVERSIDE EAST, CA
Most Recent Revision:	1980

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).

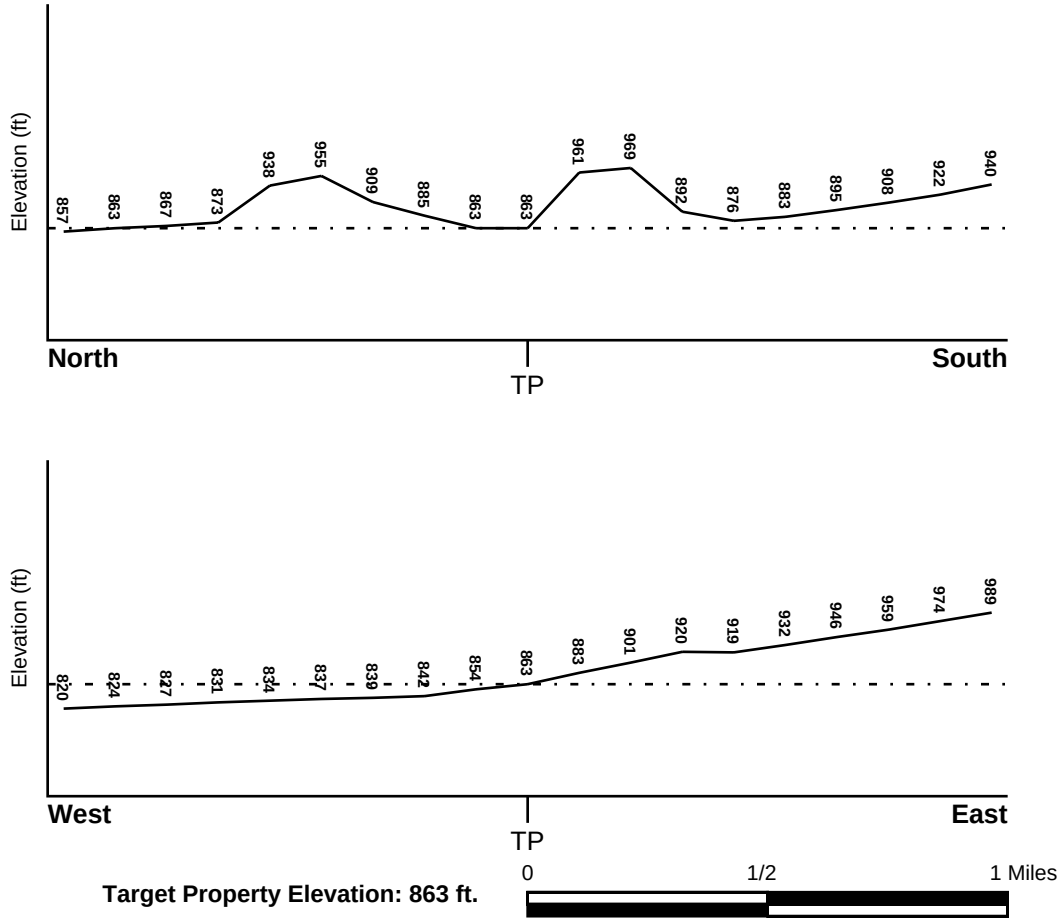
TOPOGRAPHIC INFORMATION

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 West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 863 ft.

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

Target Property County	FEMA Flood Electronic Data
RIVERSIDE, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06065C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
2	1/4 - 1/2 Mile South	WSW
3	1/2 - 1 Mile West	NW
4	1/2 - 1 Mile NW	WSW
5	1/2 - 1 Mile SW	N

For additional site information, refer to Physical Setting Source Map Findings.

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

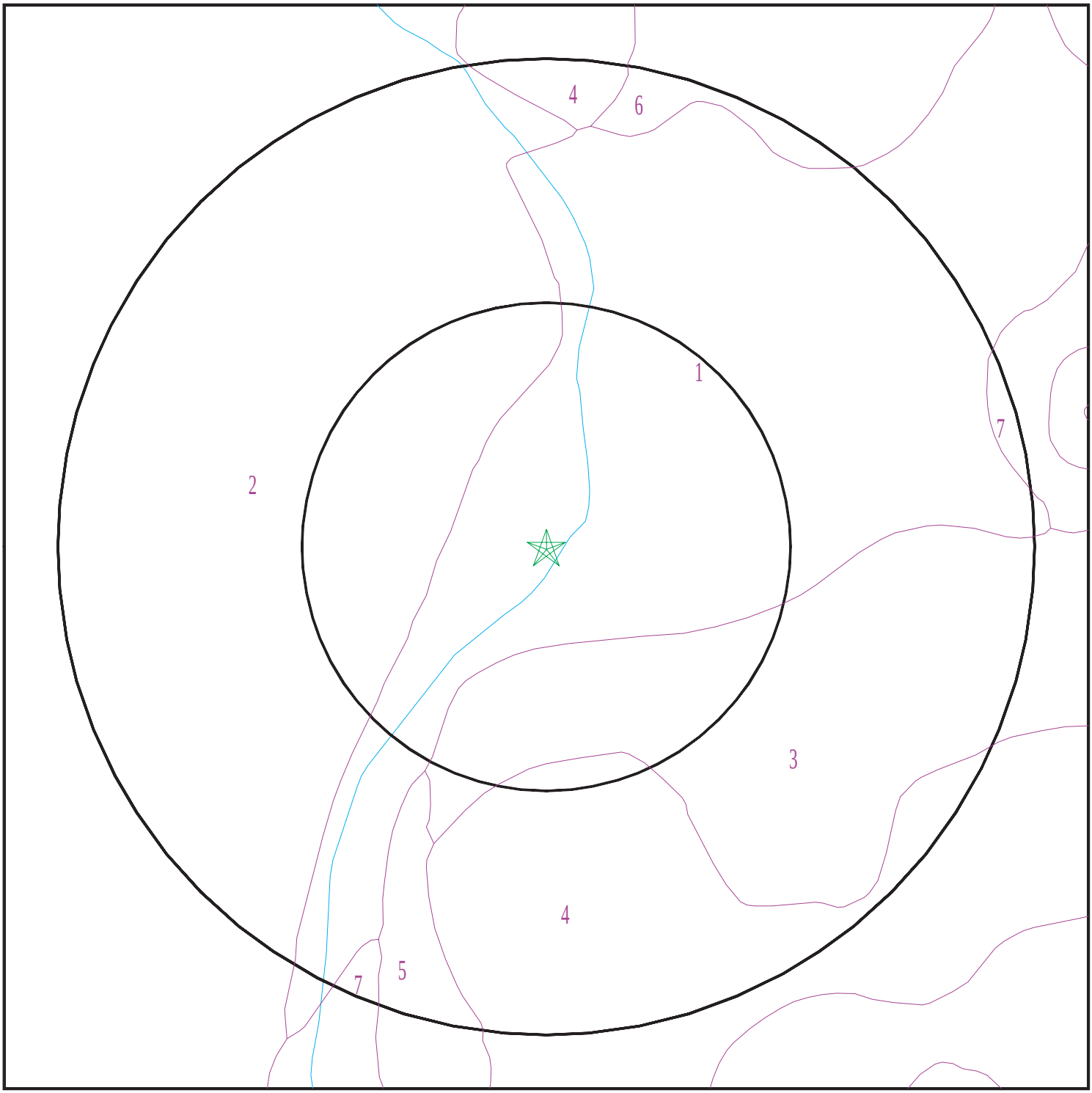
Era:	Mesozoic
System:	Cretaceous
Series:	Cretaceous granitic rocks
Code:	Kg *(decoded above as Era, System & Series)*

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 - 03651854.2r



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Magnolia Substation	CLIENT:	Rincon
ADDRESS:	3416 Central Avenue Riverside CA 92506	CONTACT:	Carly Gagen-Cheeney
LAT/LONG:	33.9535 / 117.3828	INQUIRY #:	03651854.2r
		DATE:	June 28, 2013 6:15 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: ARLINGTON

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6
2	11 inches	50 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6
3	50 inches	59 inches	cemented	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	59 inches	70 inches	coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6

Soil Map ID: 2

Soil Component Name: ARLINGTON

Soil Surface Texture: 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: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6
2	11 inches	24 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	24 inches	35 inches	cemented	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6
4	35 inches	46 inches	coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6

Soil Map ID: 3

Soil Component Name: FALLBROOK

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: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.42 Min: 0	Max: Min:

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	14 inches	24 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.42 Min: 0	Max: Min:
3	24 inches	27 inches	weathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.42 Min: 0	Max: Min:

Soil Map ID: 4

Soil Component Name: Cieneba

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: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: 0.42 Min: 0	Max: Min:

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	14 inches	22 inches	weathered bedrock	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	Not reported	Max: 0.42 Min: 0	Max: Min:

Soil Map ID: 5

Soil Component Name: BUREN

Soil Surface Texture: fine 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: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	11 inches	27 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	27 inches	37 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
4	37 inches	57 inches	cemented	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

Soil Map ID: 6

Soil Component Name: ARLINGTON

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	11 inches	50 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6
3	50 inches	59 inches	cemented	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6
4	59 inches	70 inches	coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.6

Soil Map ID: 7

Soil Component Name: BUREN

Soil Surface Texture: fine 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: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
2	11 inches	27 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
3	27 inches	37 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:
4	37 inches	57 inches	cemented	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.01 Min: 0	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.038 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

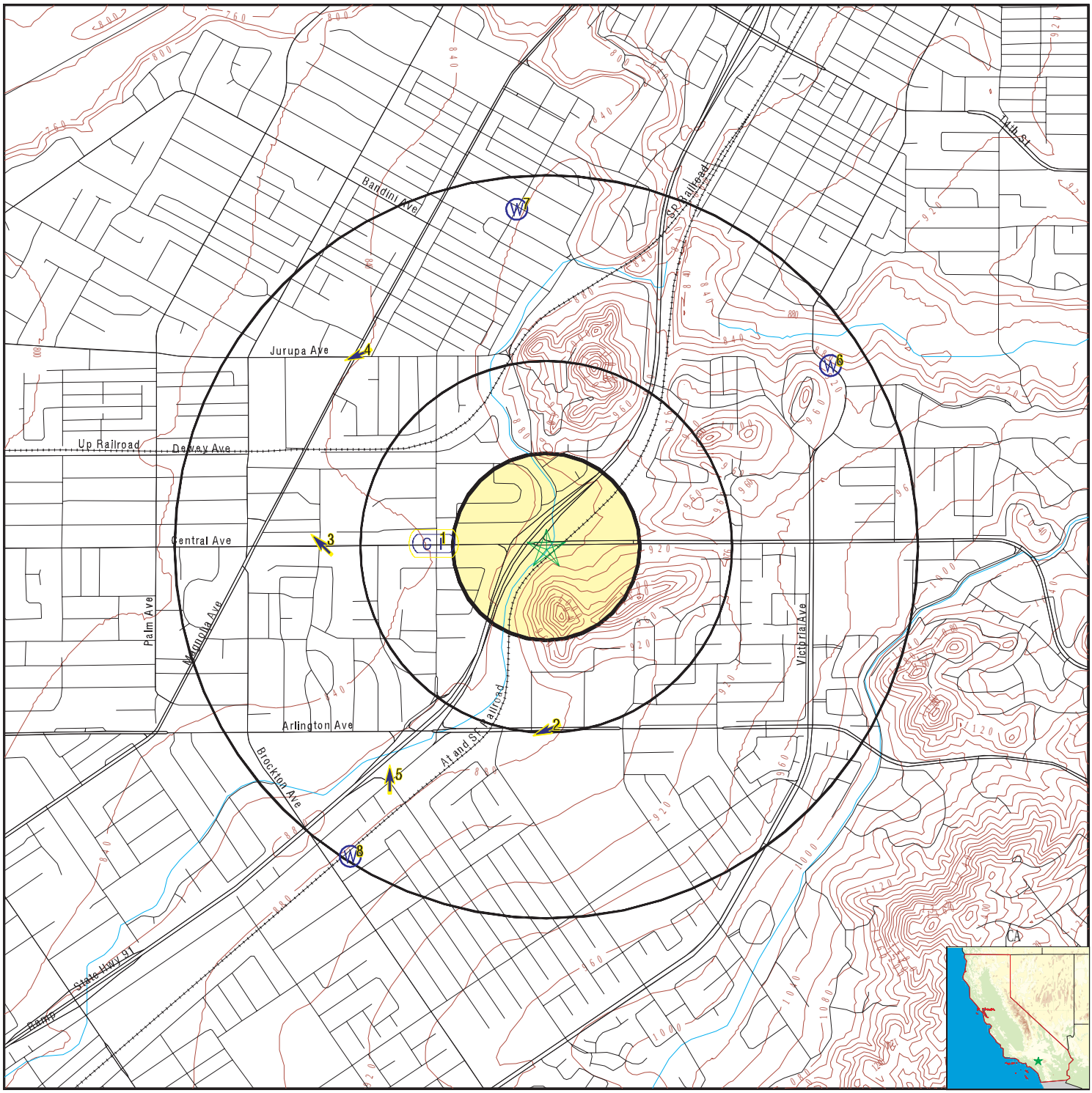
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
6	3077	1/2 - 1 Mile ENE
7	2535	1/2 - 1 Mile North
8	3539	1/2 - 1 Mile SSW

PHYSICAL SETTING SOURCE MAP - 03651854.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Magnolia Substation	CLIENT:	Rincon
ADDRESS:	3416 Central Avenue Riverside CA 92506	CONTACT:	Carly Gagen-Cheeney
		INQUIRY #:	03651854.2r
LAT/LONG:	33.9535 / 117.3828	DATE:	June 28, 2013 6:15 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
1 **West** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083302519T Not Reported Not Reported Not Reported 72-73 04/15/1996	**AQUIFLOW**	**50824**
2 **South** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083302039T WSW Not Reported Not Reported 100’ 07/09/1993	**AQUIFLOW**	**66431**
3 **West** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083302389T NW 67.19 70.07 Not Reported 10/30/1998	**AQUIFLOW**	**34254**
4 **NW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083302111T WSW Not Reported Not Reported 100’ 07/07/1993	**AQUIFLOW**	**66424**
5 **SW** **1/2 - 1 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083302534T N 97.58 102.2 Not Reported 10/30/1998	**AQUIFLOW**	**34253**
6 **ENE** **1/2 - 1 Mile** **Higher**			**CA WELLS**	**3077**

Water System Information:

Prime Station Code:	033/031-005	User ID:	WAT
FRDS Number:	3310031098	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Distribution System Sample Point Raw
Source Lat/Long:	335738.9 1172207.5	Precision:	10 Feet (1/10 Second)
Source Name:	VICTORIA BSTR - DISTRIBUTION		

System Number:	3310031		
System Name:	Riverside, City of		
Organization That Operates System:			
	3900 MAIN STREET		
	RIVERSIDE, CA 92522		
Pop Served:	245000	Connections:	58586
Area Served:	RIVERSIDE		
Sample Collected:	12/05/2007	Findings:	1.3 UG/L
Chemical:	BROMOFORM (THM)		

7
North **CA WELLS** **2535**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	02S/05W-26E25 S	User ID:	WAT
FRDS Number:	3310031071	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Agricultural/Irrigation Well
Source Lat/Long:	335800.0 1172300.0	Precision:	Undefined
Source Name:	OLIVEWOOD WELL 02 - AGRICULTURAL		
System Number:	3310031		
System Name:	Riverside, City of		
Organization That Operates System:			
	3900 MAIN STREET		
	RIVERSIDE, CA 92522		
Pop Served:	245000	Connections:	58586
Area Served:	RIVERSIDE		

8
SSW **CA WELLS** **3539**
1/2 - 1 Mile
Higher

Water System Information:

Prime Station Code:	03S/05W-03F01 S	User ID:	WAT
FRDS Number:	3310031073	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Monitoring Well
Source Lat/Long:	335629.0 1172328.6	Precision:	10 Feet (1/10 Second)
Source Name:	ORANGE ACRES - MONITORING SITE		
System Number:	3310031		
System Name:	Riverside, City of		
Organization That Operates System:			
	3900 MAIN STREET		
	RIVERSIDE, CA 92522		
Pop Served:	245000	Connections:	58586
Area Served:	RIVERSIDE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92506	22	1

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92506

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
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.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

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^{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 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.

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 Health Services
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

RIVERSIDE CHEVRON/TEXACO ARLINGT
3518 ARLINGTON AVE
RIVERSIDE, CA 92503

Inquiry Number:
July 3, 2013

EDR Site Report™

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

The EDR-Site Report™ is a comprehensive presentation of government filings on a facility identified in a search of federal, state and local environmental databases. The report is divided into three sections:

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 **RIVERSIDE CHEVRON/TEXACO ARLINGTON** 3518 ARLINGTON AVE RIVERSIDE, CA 92503 EDR ID #S103654842
WASTE MANAGEMENT Facility generates hazardous waste (RCRA)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSDF)	NO
Facility has received Notices of Violations (RCRA/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	NO
Facility has reported leaking underground storage tank incidents (LUST)	**YES - p4**
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LF)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	NO
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

WASTE MANAGEMENT

Facility has reported leaking underground storage tank incidents

DATABASE: Leaking Petroleum Storage Tank Database (LUST)

RIVERSIDE CHEVRON/TEXACO ARLINGTON
3518 ARLINGTON AVE
RIVERSIDE, CA 92503
EDR ID #S103654842

LUST:

Region:	STATE
Global Id:	T0606500223
Latitude:	33.9460059
Longitude:	-117.38839
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	03/16/1992
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	UNK
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	083301756T
LOC Case Number:	91095
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Contact:

Global Id:	T0606500223
Contact Type:	Local Agency Caseworker
Contact Name:	UNK
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	Not reported

Global Id:	T0606500223
Contact Type:	Regional Board Caseworker
Contact Name:	ROSE SCOTT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	rscott@waterboards.ca.gov
Phone Number:	9513206375

Regulatory Activities:

Global Id:	T0606500223
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery

Global Id:	T0606500223
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

Global Id:	T0606500223
Action Type:	ENFORCEMENT
Date:	03/16/1992
Action:	Closure/No Further Action Letter - #Riv Co Closure

Global Id:	T0606500223
Action Type:	ENFORCEMENT
Date:	03/16/1992
Action:	Closure/No Further Action Letter

Global Id:	T0606500223
Action Type:	ENFORCEMENT
Date:	02/06/1991
Action:	Notice of Responsibility

Global Id:	T0606500223
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

Global Id:	T0606500223
Action Type:	ENFORCEMENT

SECTION 2: FACILITY DETAIL REPORTS

...Continued...

Date:	03/15/1992
Action:	File review - #RCDEH Upload Site File 11/16/2010
Global Id:	T0606500223
Action Type:	RESPONSE
Date:	02/12/1991
Action:	Unauthorized Release Form
Region:	STATE
Global Id:	T10000001492
Latitude:	33.9460536
Longitude:	-117.3883212
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	03/22/2010
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	YR
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	200930830
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel, Gasoline
Site History:	The site was formerly used as a service station from 1964 to 2009. This is the second LOP case at this site. The previous LOP case was closed on March 16, 1992. The site is currently vacant and consists of approximately 0.38 acres. Riverside County Transportation Commission plans to use the land as part of the State Route 91 (SR-91) expansion. November 18 and 19, 2008, a Limited Soil Sampling Phase II Environmental Site Assessment was conducted. Ten borings were advanced and 30 soil samples were collected. Borings CH-1 through CH-3, CH-5 and CH-6 were advanced near the 10,000 gallon USTs and product dispenser piping. Boring CH-4 was advanced near the former 6,000 gallon UST excavation to evaluate for releases related to the former USTs removed in 1991. Concentrations of oil range TPH were detected in samples CH-4-5 (35.1 ppm) and WO-1-5 (33.3 ppm). VOCs were not detected with the exception of naphthalene in sample CH-4-10 (0.004 ppm) and toluene (0.006 ppm), and Xylene in sample I-1-5 (0.008 ppm). May 11, 2009, four 10,000 gallon USTs (three gasoline and one diesel), associated piping, and dispensers were removed, buildings were also demolished. Twenty (28) soil samples were collected. Three soil samples (26, 27 and 28) contained concentrations in excess of method detection limits. Sample 28 was collected from an area of de minimus surface staining. Samples 26 and 27 were collected from beneath buried product piping. Maximum soil concentrations: 13000 ppm TPHd (sample 28), 30 ppm TPHg (sample 28), 0.0097 ppm B (sample 24), 0.068 ppm T (sample 24), 0.0086 ppm E (sample 24), 0.27 ppm X (sample 28), 0.42 ppm 1,2,4 TMB (sample 28), 0.19 ppm 1,3,5 TMB (sample 28), 14 ppm lead (sample 18), 0.51 ppm benzo (a) pyrene (sample 26), 0.54 ppm benzo (b) fluoranthene (sample 26), 1.2 ppm benzo (g,h,i) perylene (sample 26), 0.56 ppm fluoranthene (samples 27), 0.7 ppm indeno (1,2,3-cd) pyrene (sample 26), 0.80 ppm pyrene (samples 27). July 2009 - The site was entered into LOP. November 2009 - The Request for Site Closure (Leighton Consulting, Inc., October 28, 2009) and the Final Phase I and Limited Phase II Environmental Site Assessment Report (Leighton Consulting, Inc., March 11, 2009) were submitted and reviewed. December 2009 - RCDEH determined that no additional assessment is required based on results of soil samples collected in November 2008 during the Phase I and Phase II site assessment. A site closure summary was prepared and submitted to the Regional Board for closure concurrence. Concurrence obtained, case closed on 3/18/10.

Contact:

Global Id:	T10000001492
Contact Type:	Local Agency Caseworker
Contact Name:	YVONNE REYES
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	ayreyes@rivcocha.org
Phone Number:	9519558982
Global Id:	T10000001492
Contact Type:	Regional Board Caseworker
Contact Name:	TOM E. MBEKE-EKANEM
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	tmbeke-ekanem@waterboards.ca.gov
Phone Number:	9513202007

Regulatory Activities:

Global Id:	T10000001492

SECTION 2: FACILITY DETAIL REPORTS

...Continued...

Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T10000001492
Action Type: ENFORCEMENT
Date: 08/24/2009
Action: Staff Letter - #RCDEH082409

Global Id: T10000001492
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T10000001492
Action Type: RESPONSE
Date: 10/26/2009
Action: Other Workplan

Global Id: T10000001492
Action Type: ENFORCEMENT
Date: 07/17/2009
Action: Notification - Proposition 65 - #RCDEH071709

Global Id: T10000001492
Action Type: ENFORCEMENT
Date: 08/24/2009
Action: Letter - Notice - #RCDEH082409

Global Id: T10000001492
Action Type: ENFORCEMENT
Date: 03/18/2010
Action: Closure/No Further Action Letter - #RCDEH Closure

Global Id: T10000001492
Action Type: ENFORCEMENT
Date: 08/24/2009
Action: Notice of Responsibility - #RCDEH082409

Global Id: T10000001492
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

RIVERSIDE CO. LUST:

Region: RIVERSIDE
Facility ID: 91095
Employee: Boltinghous-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed

Region: RIVERSIDE
Facility ID: 200930830
Employee: Reyes-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed

SECTION 3: DATABASES AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

DATABASES FOUND IN THIS REPORT

CA LUST: Geotracker's Leaking Underground Fuel Tank Report
Source: State Water Resources Control Board
Telephone: see region listings for the contact phone numbers
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 06/17/2013
Database Release Frequency: Quarterly
Date of Last EDR Contact: 06/17/2013
Date of Next Scheduled Update: 09/30/2013

CA LUST: Geotracker's Leaking Underground Fuel Tank Report
Source: State Water Resources Control Board
Telephone: see region listings for the contact phone numbers
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 06/17/2013
Database Release Frequency: Quarterly
Date of Last EDR Contact: 06/17/2013
Date of Next Scheduled Update: 09/30/2013

CA LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Source: Department of Environmental Health
Telephone: 951-358-5055
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/23/2013
Database Release Frequency: Quarterly
Date of Last EDR Contact: 06/18/2013
Date of Next Scheduled Update: 10/07/2013

RIVERSIDE PLUME
DOWNTOWN RIVERSIDE
RIVERSIDE, CA

Inquiry Number:
July 2, 2013

EDR Site Report™

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

The EDR-Site Report™ is a comprehensive presentation of government filings on a facility identified in a search of federal, state and local environmental databases. The report is divided into three sections:

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 **RIVERSIDE PLUME** DOWNTOWN RIVERSIDE RIVERSIDE, CA EDR ID #S106486916
WASTE MANAGEMENT Facility generates hazardous waste (RCRA)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSDF)	NO
Facility has received Notices of Violations (RCRA/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	NO
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LF)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	**YES - p4**
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

MULTIMEDIA

Facility is listed in a county/local unique database

DATABASE: State/County (LOCAL)

RIVERSIDE PLUME
DOWNTOWN RIVERSIDE
RIVERSIDE, CA
EDR ID #S106486916

SLIC:

Region:	STATE
Facility Status:	Open - Site Assessment
Status Date:	04/13/1994
Global Id:	SLT8R0373922
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Lead Agency Case Number:	Not reported
Latitude:	33.975894080962
Longitude:	-117.369389533997
Case Type:	Cleanup Program Site
Case Worker:	KS
Local Agency:	Not reported
RB Case Number:	SLT8R037
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

SECTION 3: DATABASES AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

DATABASES FOUND IN THIS REPORT

CA SPILLS 90: SPILLS 90 data from FirstSearch
Source: FirstSearch
Telephone: Not reported
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
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 01/03/2013
Date of Next Scheduled Update: Not reported

CA SLIC: Statewide SLIC Cases
Source: State Water Resources Control Board
Telephone: 866-480-1028
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: 06/17/2013
Database Release Frequency: Varies
Date of Last EDR Contact: 06/17/2013
Date of Next Scheduled Update: 09/30/2013

RIVERSIDE PLUME
N/A RIVERSIDE II BASIN
RIVERSIDE, CA

Inquiry Number:
July 2, 2013

EDR Site Report™

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

The EDR-Site Report™ is a comprehensive presentation of government filings on a facility identified in a search of federal, state and local environmental databases. The report is divided into three sections:

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 **RIVERSIDE PLUME** N/A RIVERSIDE II BASIN RIVERSIDE, CA EDR ID #S108985920
WASTE MANAGEMENT Facility generates hazardous waste (RCRA)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSDF)	NO
Facility has received Notices of Violations (RCRA/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	NO
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LF)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	**YES - p4**
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

MULTIMEDIA

Facility is listed in a county/local unique database

DATABASE: State/County (LOCAL)

RIVERSIDE PLUME
N/A RIVERSIDE II BASIN
RIVERSIDE, CA
EDR ID #S108985920

SLIC REG 8:

Type:	Groundwater
Facility Status:	Additional Characterization Underway
Region:	8
Staff:	Kamron Saremi, Tel 909-782-4303, SLIC
Substance:	Kamron Saremi, Tel 909-782-4303, SLIC
Lead Agency:	Kamron Saremi, Tel 909-782-4303, SLIC
Location Code:	Kamron Saremi, Tel 909-782-4303, SLIC
Thomas Bros Code:	Kamron Saremi, Tel 909-782-4303, SLIC

SECTION 3: DATABASES AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

DATABASES FOUND IN THIS REPORT

CA SPILLS 90: SPILLS 90 data from FirstSearch
Source: FirstSearch
Telephone: Not reported
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
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 01/03/2013
Date of Next Scheduled Update: Not reported

CA SLIC: Statewide SLIC Cases
Source: State Water Resources Control Board
Telephone: 866-480-1028
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: 06/17/2013
Database Release Frequency: Varies
Date of Last EDR Contact: 06/17/2013
Date of Next Scheduled Update: 09/30/2013

CA SLIC REGION 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
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
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 09/12/2011
Date of Next Scheduled Update: 12/26/2011

Appendix 4

Historical Research Documentation

Magnolia Substation
3416 Central Avenue
Riverside, CA 92506

Inquiry Number: 3651854.5
July 03, 2013

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

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.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

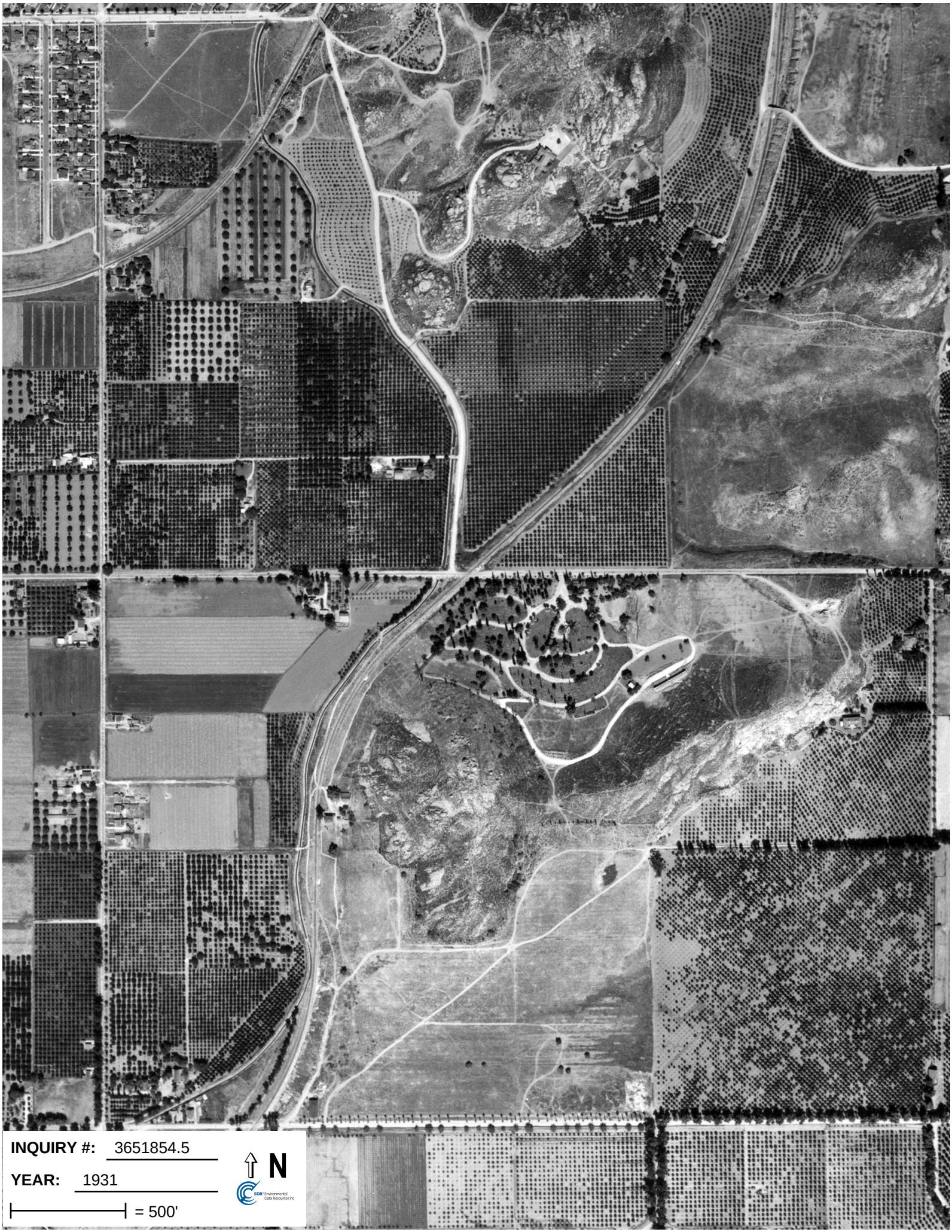
Date EDR Searched Historical Sources:

Aerial Photography July 03, 2013

Target Property:

3416 Central Avenue
Riverside, CA 92506

Year	***Scale***	***Details***	***Source***
1931	Aerial Photograph. Scale: 1"=500'	Flight Year: 1931	Fairchild
1938	Aerial Photograph. Scale: 1"=500'	Flight Year: 1938	Laval
1948	Aerial Photograph. Scale: 1"=500'	Flight Year: 1948	USGS
1953	Aerial Photograph. Scale: 1"=500'	Flight Year: 1953	Pacific Air
1963	Aerial Photograph. Scale: 1"=500'	Flight Year: 1963	Mark Hurd
1967	Aerial Photograph. Scale: 1"=500'	Flight Year: 1967	Western
1977	Aerial Photograph. Scale: 1"=500'	Flight Year: 1977	Teledyne
1989	Aerial Photograph. Scale: 1"=500'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1994	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	EDR



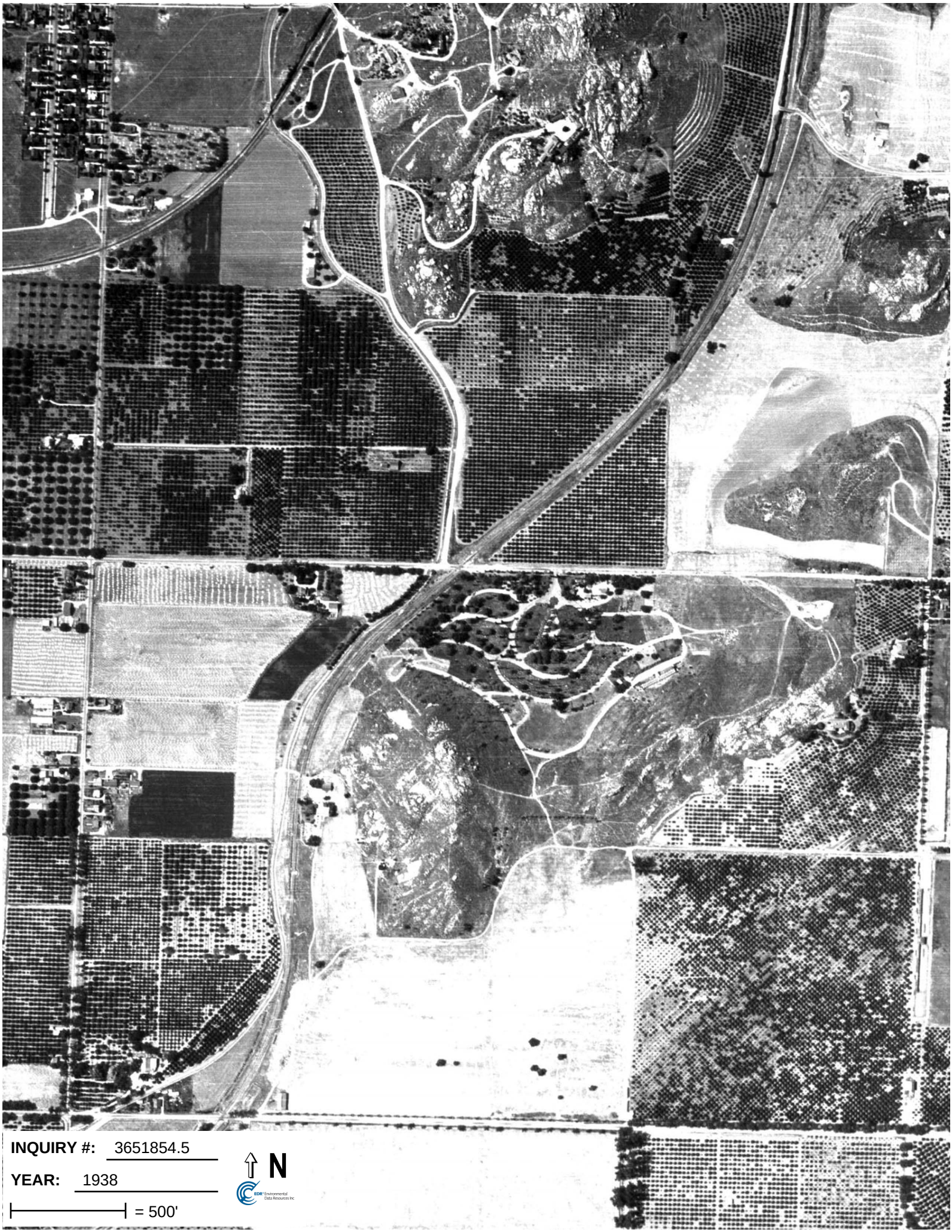
INQUIRY #: 3651854.5

YEAR: 1931

= 500'

N

EDR Environmental Data Resources Inc


INQUIRY #: 3651854.5
YEAR: 1938
= 500'
N
EDR Environmental Data Resources Inc


INQUIRY #: 3651854.5
YEAR: 1948
= 500'
N


INQUIRY #: 3651854.5
YEAR: 1953
= 500'
N


INQUIRY #: 3651854.5
YEAR: 1963
= 500'
N
EDR Environmental Data Resources Inc


INQUIRY #: 3651854.5
YEAR: 1967
= 500'
N
EDR Environmental Data Resources Inc


INQUIRY #: 3651854.5
YEAR: 1977
= 500'
N


INQUIRY #: 3651854.5
YEAR: 1989
= 500'
N
EDR Environmental Data Resources Inc


INQUIRY #: 3651854.5
YEAR: 1994
= 500'
N
EDR Environmental Data Resources Inc


INQUIRY #: 3651854.5
YEAR: 2005
= 500'
N


INQUIRY #: 3651854.5
YEAR: 2006
= 500'
N


INQUIRY #: 3651854.5
YEAR: 2009
= 500'
N


INQUIRY #: 3651854.5
YEAR: 2010
= 500'
N
EDR Environmental Data Resources Inc


INQUIRY #: 3651854.5
YEAR: 2012
= 500'
N
EDR Environmental Data Resources Inc

Magnolia Substation
3416 Central Avenue
Riverside, CA 92506

Inquiry Number: 3651854.4
July 01, 2013

EDR Historical Topographic Map Report

EDR® Environmental Data Resources Inc

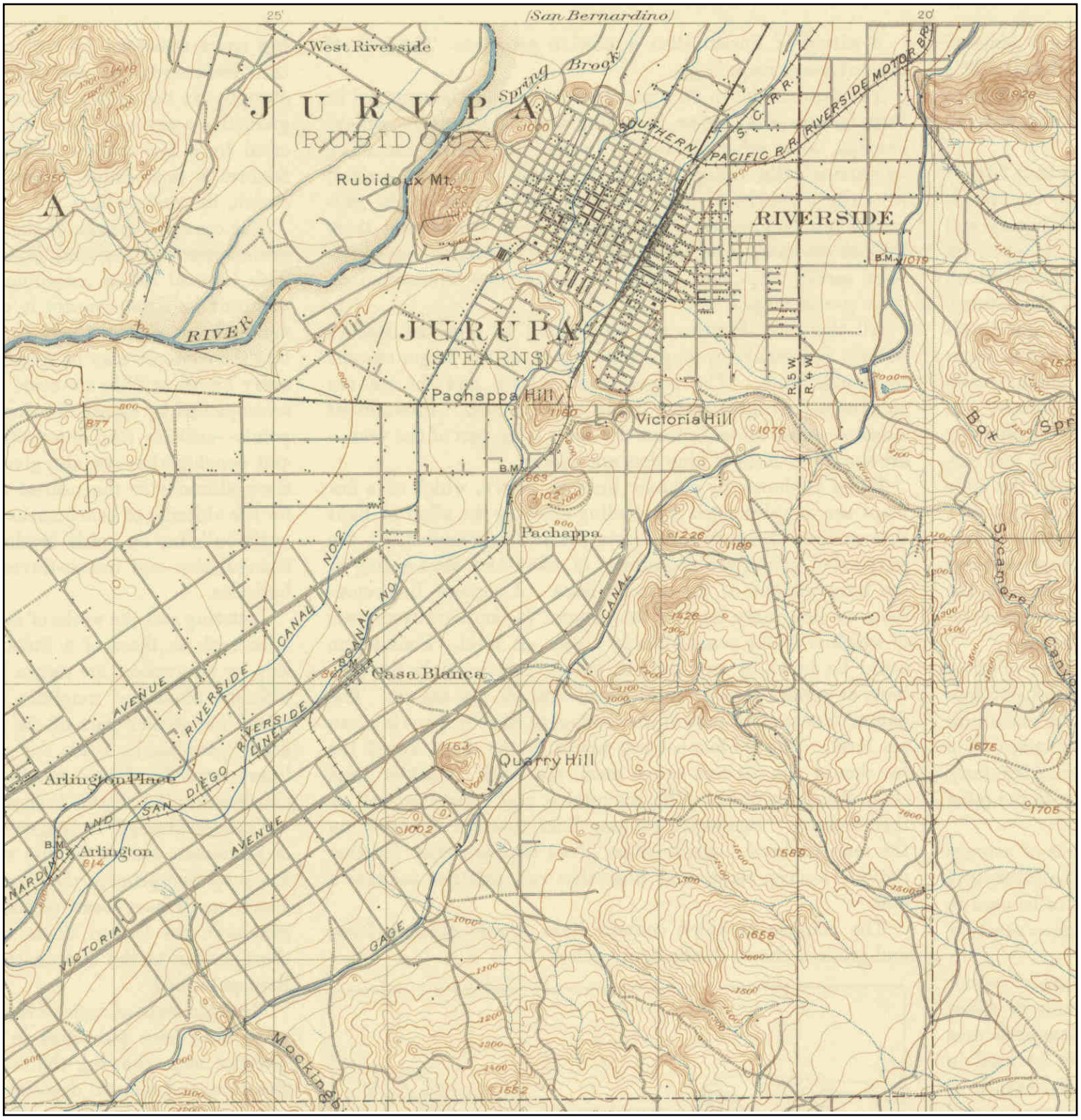
440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

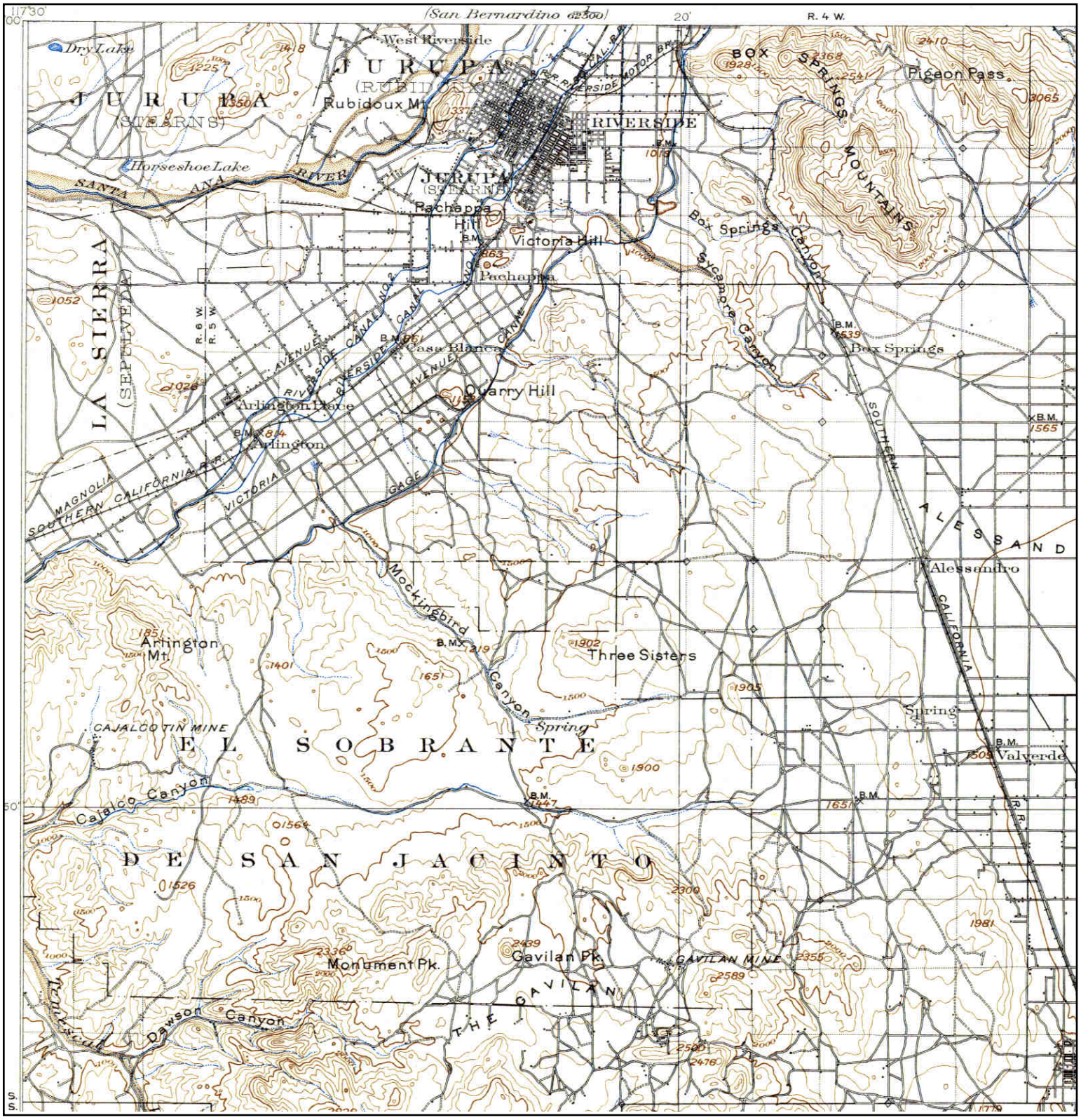
Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Historical Topographic Map



N	TARGET QUAD		SITE NAME:	Magnolia Substation	CLIENT:	Rincon
	NAME:	RIVERSIDE	ADDRESS:	3416 Central Avenue	CONTACT:	Carly Gagen-Cheeney
	MAP YEAR:	1901		Riverside, CA 92506	INQUIRY#:	3651854.4
			LAT/LONG:	33.9535 / -117.3828	RESEARCH DATE:	07/01/2013
	SERIES:	15				
	SCALE:	1:62500				

Historical Topographic Map

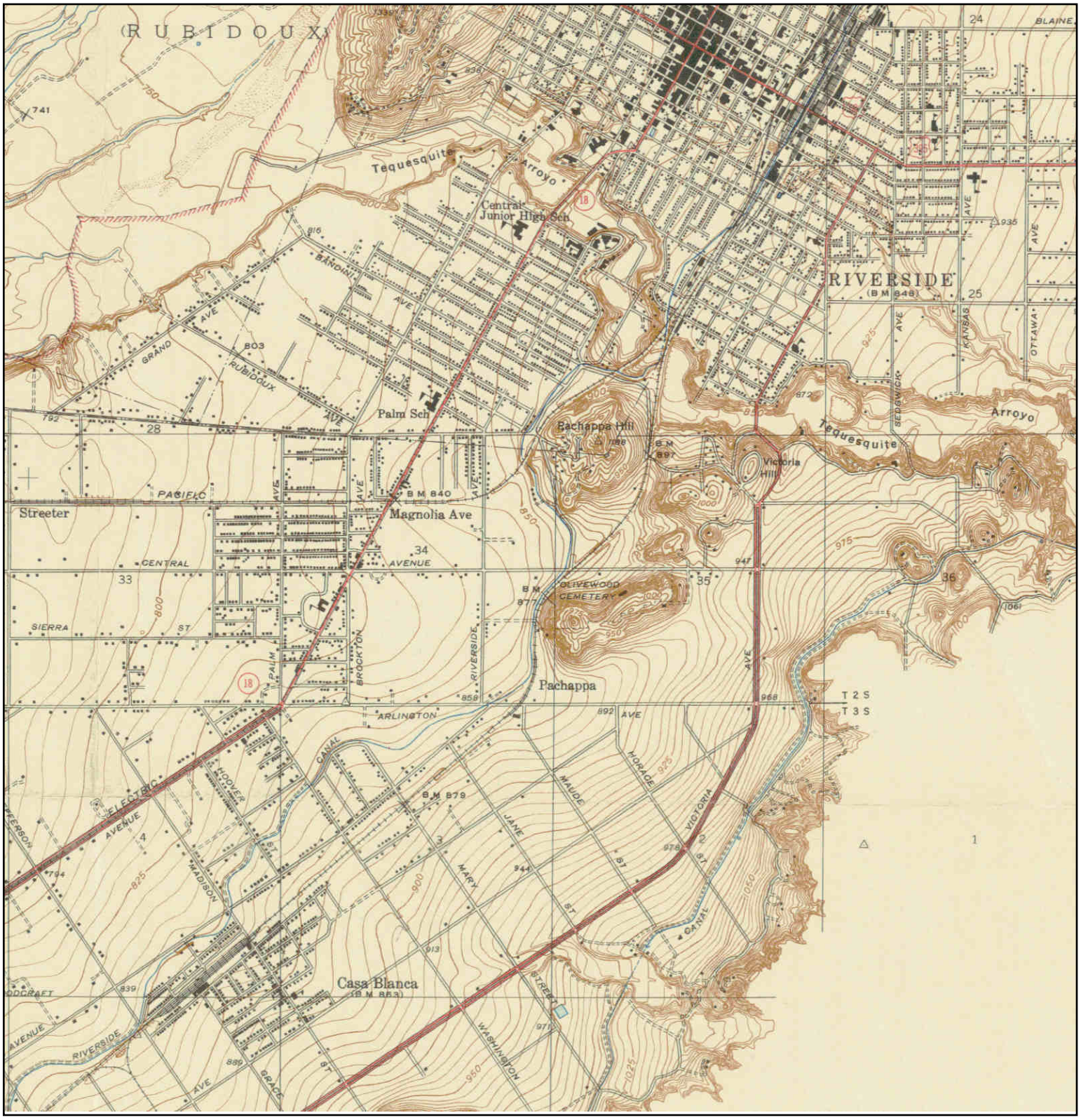


N	TARGET QUAD NAME: ELSINORE MAP YEAR: 1901 SERIES: 30 SCALE: 1:125000	SITE NAME: Magnolia Substation ADDRESS: 3416 Central Avenue Riverside, CA 92506 LAT/LONG: 33.9535 / -117.3828	CLIENT: Rincon CONTACT: Carly Gagen-Cheeney INQUIRY#: 3651854.4 RESEARCH DATE: 07/01/2013

Historical Topographic Map

N	TARGET QUAD NAME: SOUTHERN CA SHEET 1 MAP YEAR: 1901 SERIES: 60 SCALE: 1:250000	SITE NAME: Magnolia Substation ADDRESS: 3416 Central Avenue Riverside, CA 92506 LAT/LONG: 33.9535 / -117.3828	CLIENT: Rincon CONTACT: Carly Gagen-Cheeney INQUIRY#: 3651854.4 RESEARCH DATE: 07/01/2013

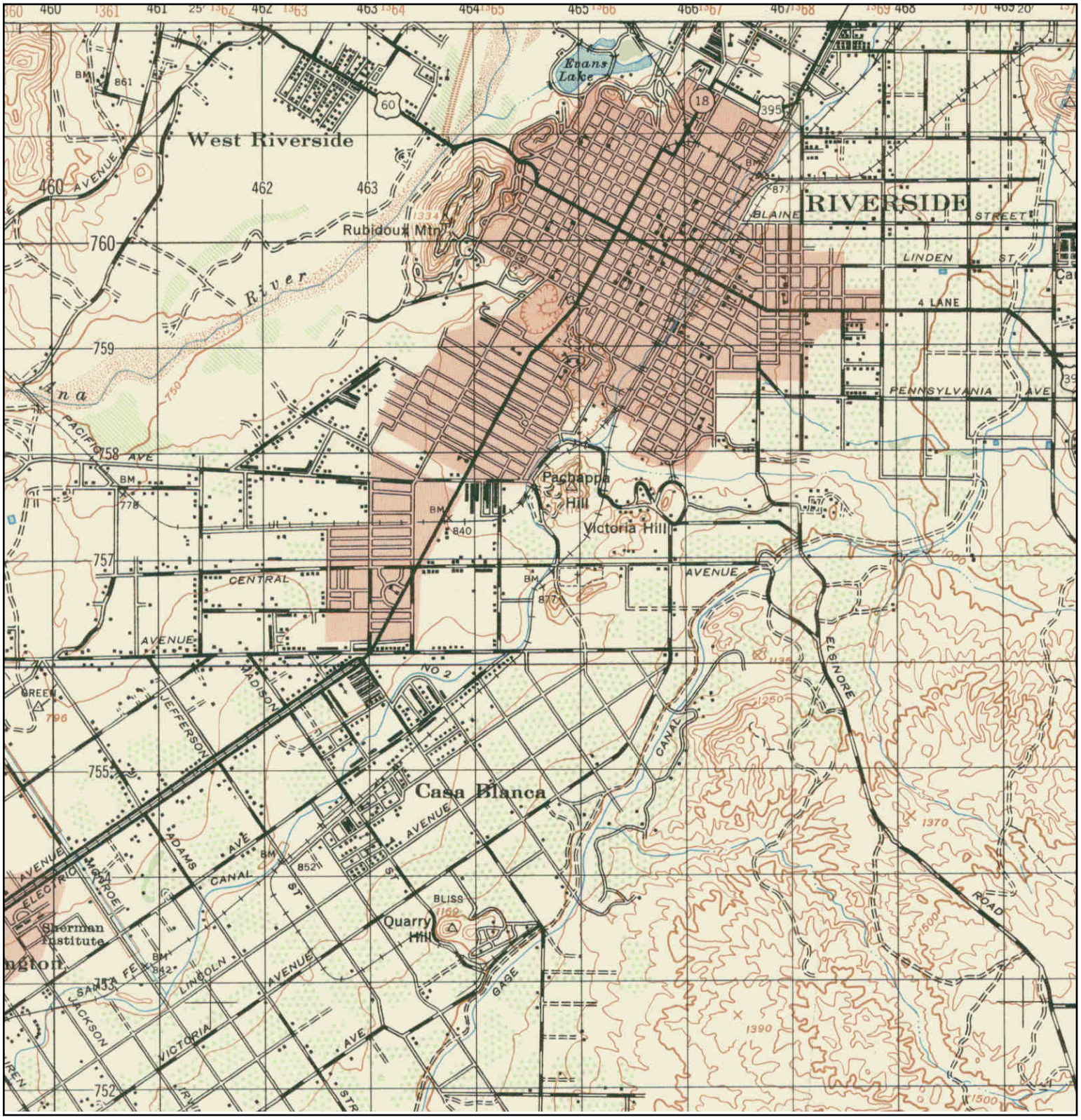
Historical Topographic Map



Unsurveyed Area on the Topographic Map

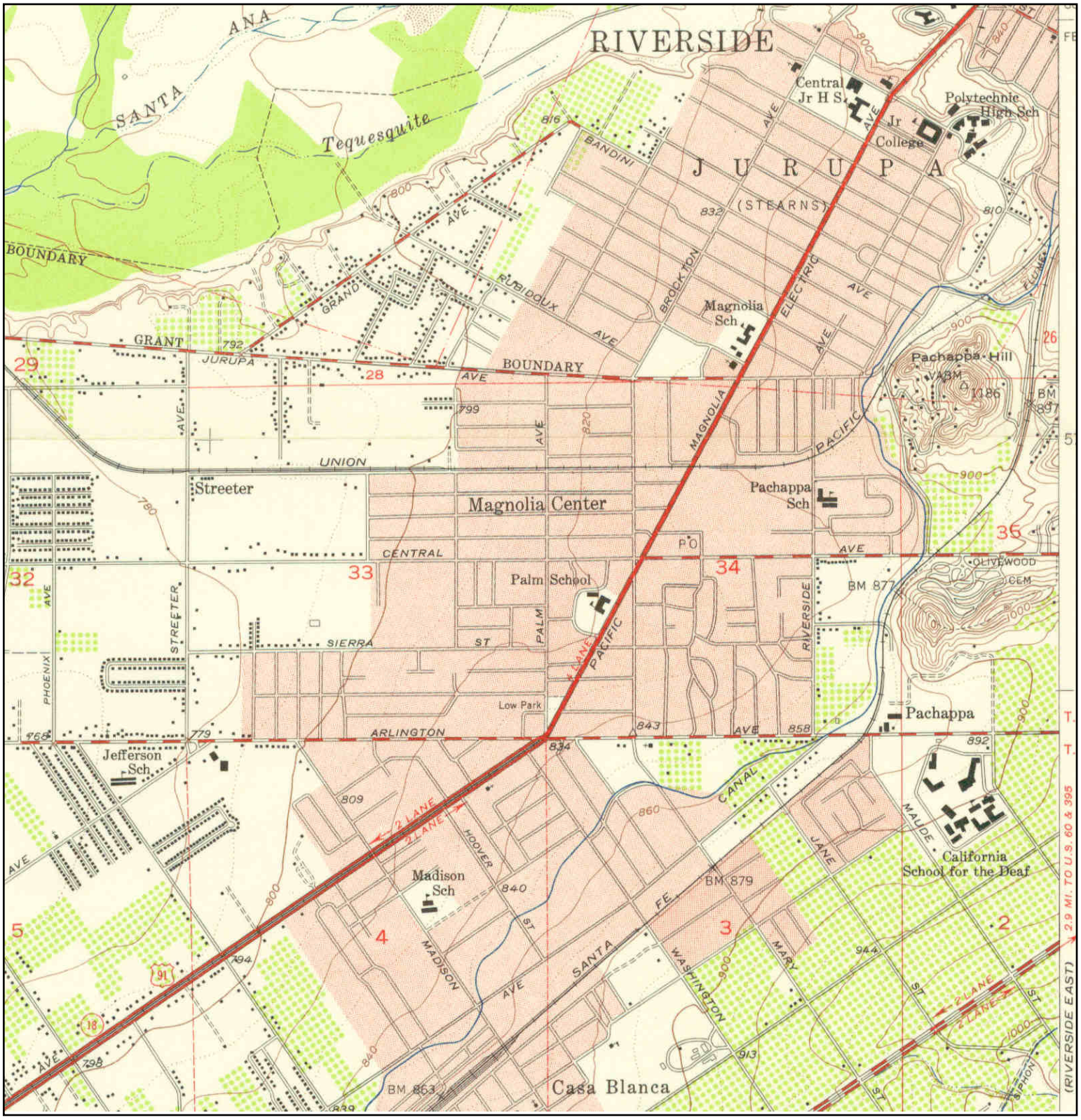
N	TARGET QUAD NAME: RIVERSIDE VICINITY MAP YEAR: 1942 SERIES: 7.5 SCALE: 1:31680	SITE NAME: Magnolia Substation ADDRESS: 3416 Central Avenue Riverside, CA 92506 LAT/LONG: 33.9535 / -117.3828	CLIENT: Rincon CONTACT: Carly Gagen-Cheeney INQUIRY#: 3651854.4 RESEARCH DATE: 07/01/2013

Historical Topographic Map



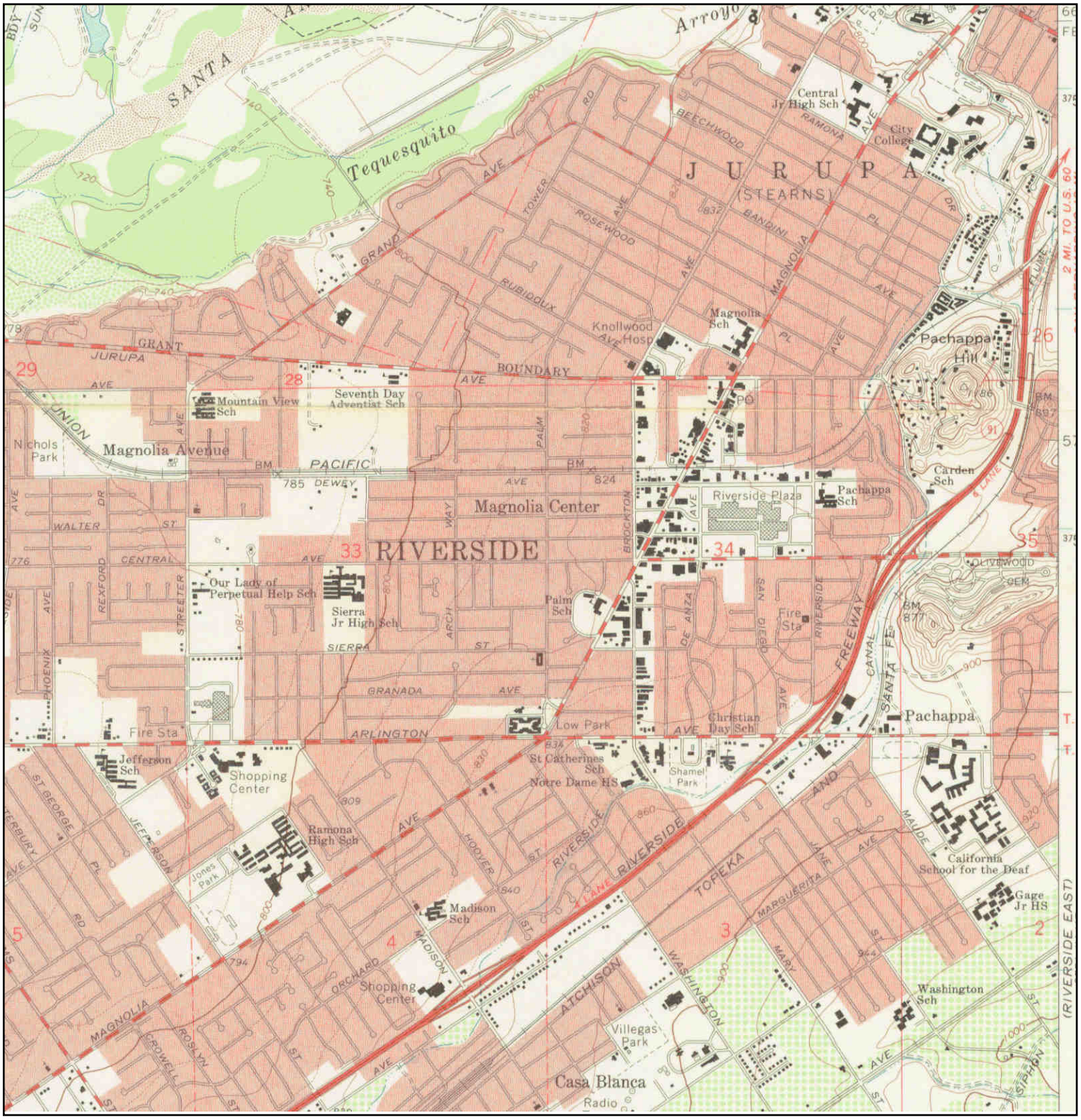
N	TARGET QUAD NAME: RIVERSIDE MAP YEAR: 1947 SERIES: 15 SCALE: 1:50000	SITE NAME: Magnolia Substation ADDRESS: 3416 Central Avenue Riverside, CA 92506 LAT/LONG: 33.9535 / -117.3828	CLIENT: Rincon CONTACT: Carly Gagen-Cheeney INQUIRY#: 3651854.4 RESEARCH DATE: 07/01/2013

Historical Topographic Map



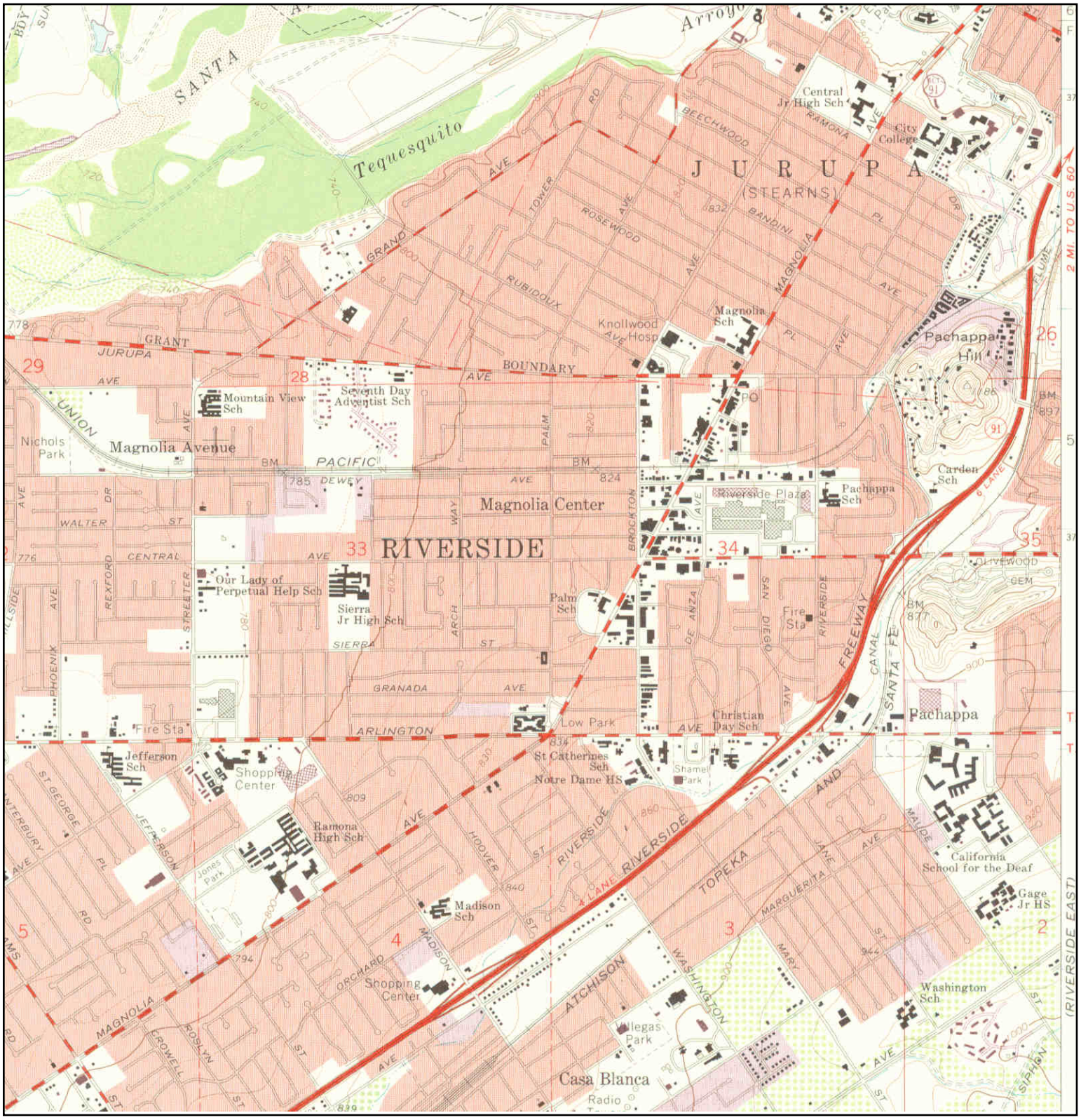
N	TARGET QUAD		SITE NAME:	Magnolia Substation	CLIENT:	Rincon
	NAME:	RIVERSIDE WEST	ADDRESS:	3416 Central Avenue	CONTACT:	Carly Gagen-Cheeney
	MAP YEAR:	1953		Riverside, CA 92506	INQUIRY#:	3651854.4
			LAT/LONG:	33.9535 / -117.3828	RESEARCH DATE:	07/01/2013
	SERIES:	7.5				
	SCALE:	1:24000				

Historical Topographic Map



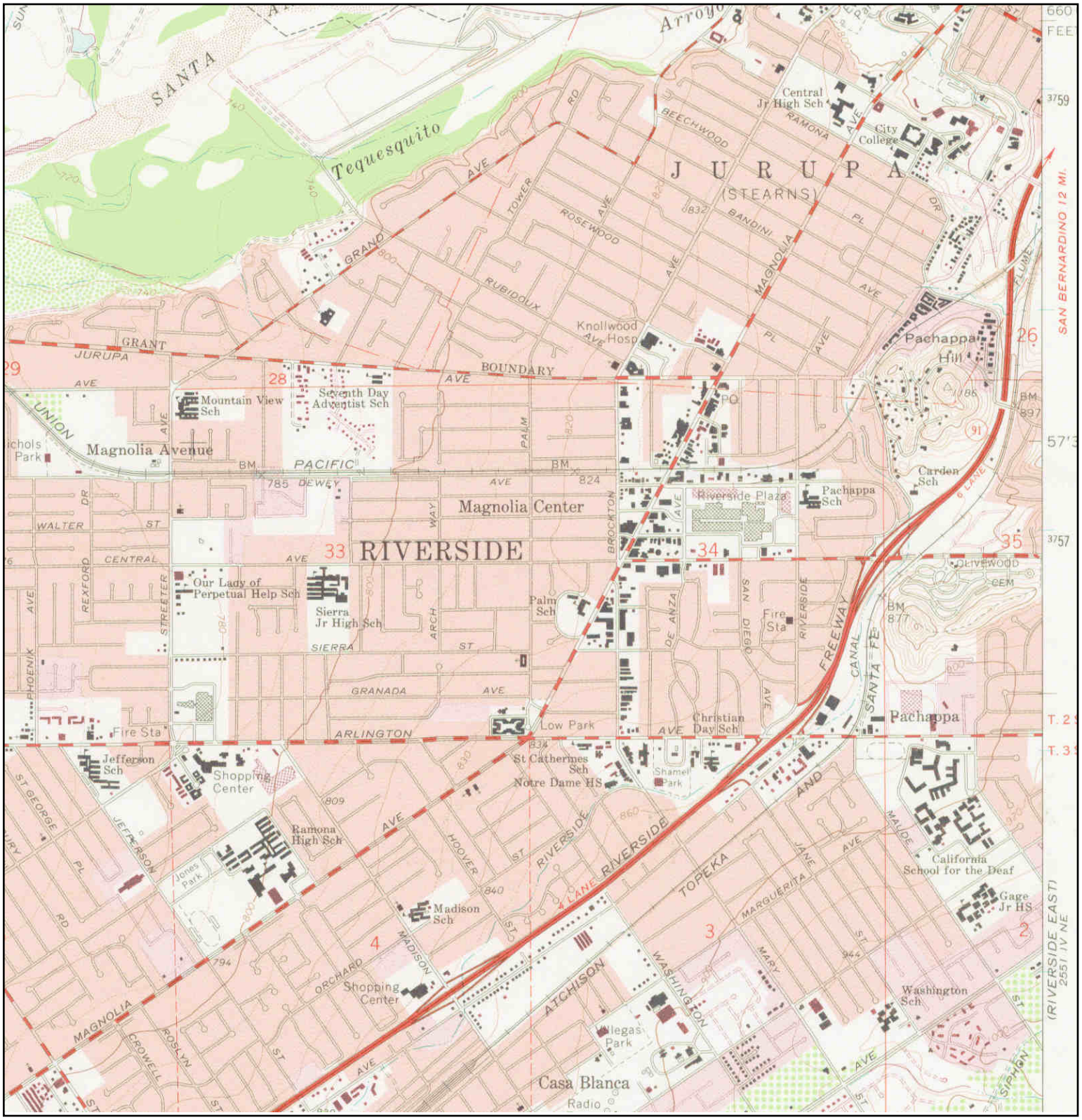
N	TARGET QUAD NAME: RIVERSIDE WEST MAP YEAR: 1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Magnolia Substation ADDRESS: 3416 Central Avenue Riverside, CA 92506 LAT/LONG: 33.9535 / -117.3828	CLIENT: Rincon CONTACT: Carly Gagen-Cheeney INQUIRY#: 3651854.4 RESEARCH DATE: 07/01/2013

Historical Topographic Map



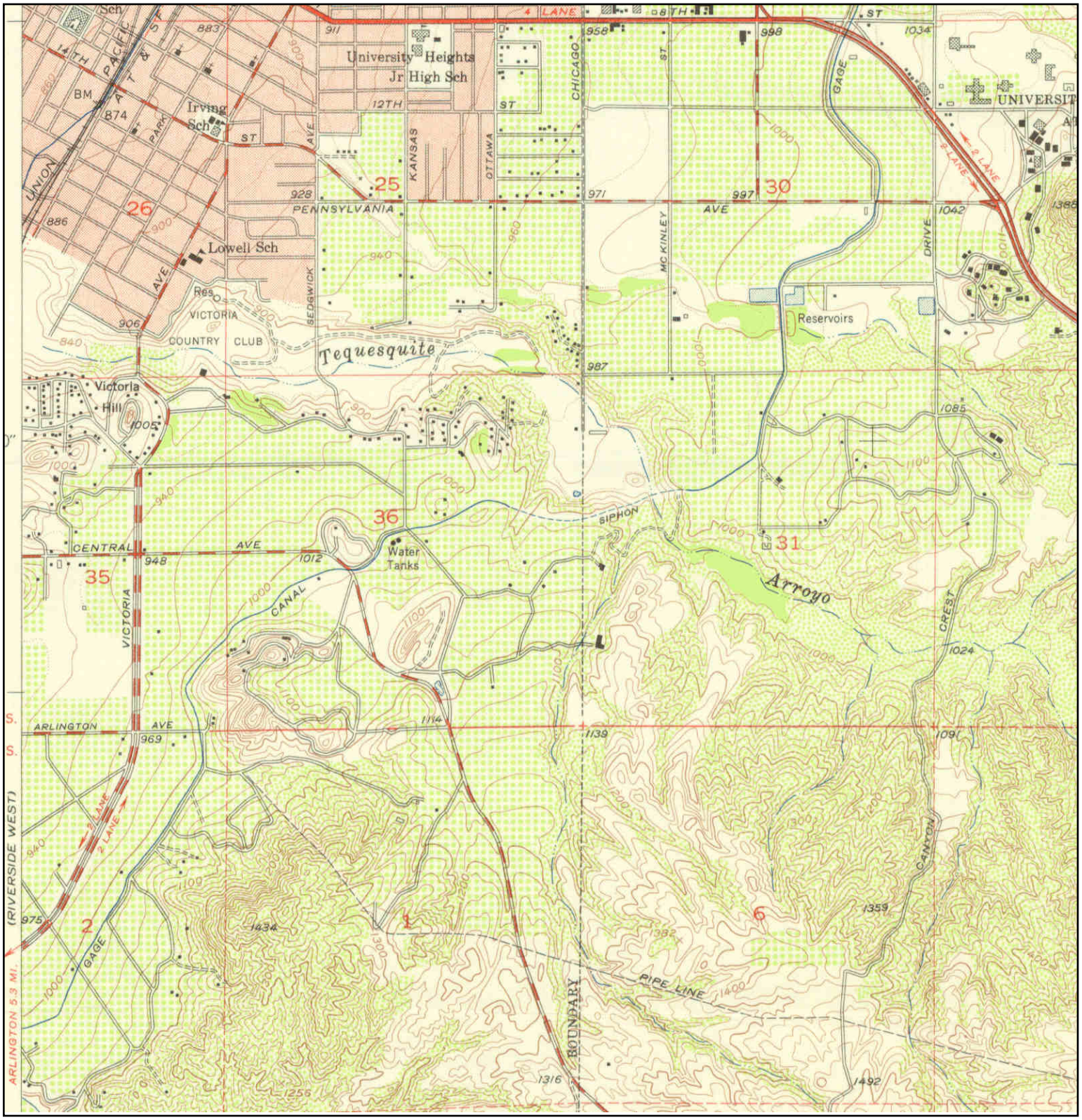
N	TARGET QUAD NAME: RIVERSIDE WEST MAP YEAR: 1973 PHOTOREVISED FROM :1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Magnolia Substation ADDRESS: 3416 Central Avenue Riverside, CA 92506 LAT/LONG: 33.9535 / -117.3828	CLIENT: Rincon CONTACT: Carly Gagen-Cheeney INQUIRY#: 3651854.4 RESEARCH DATE: 07/01/2013

Historical Topographic Map



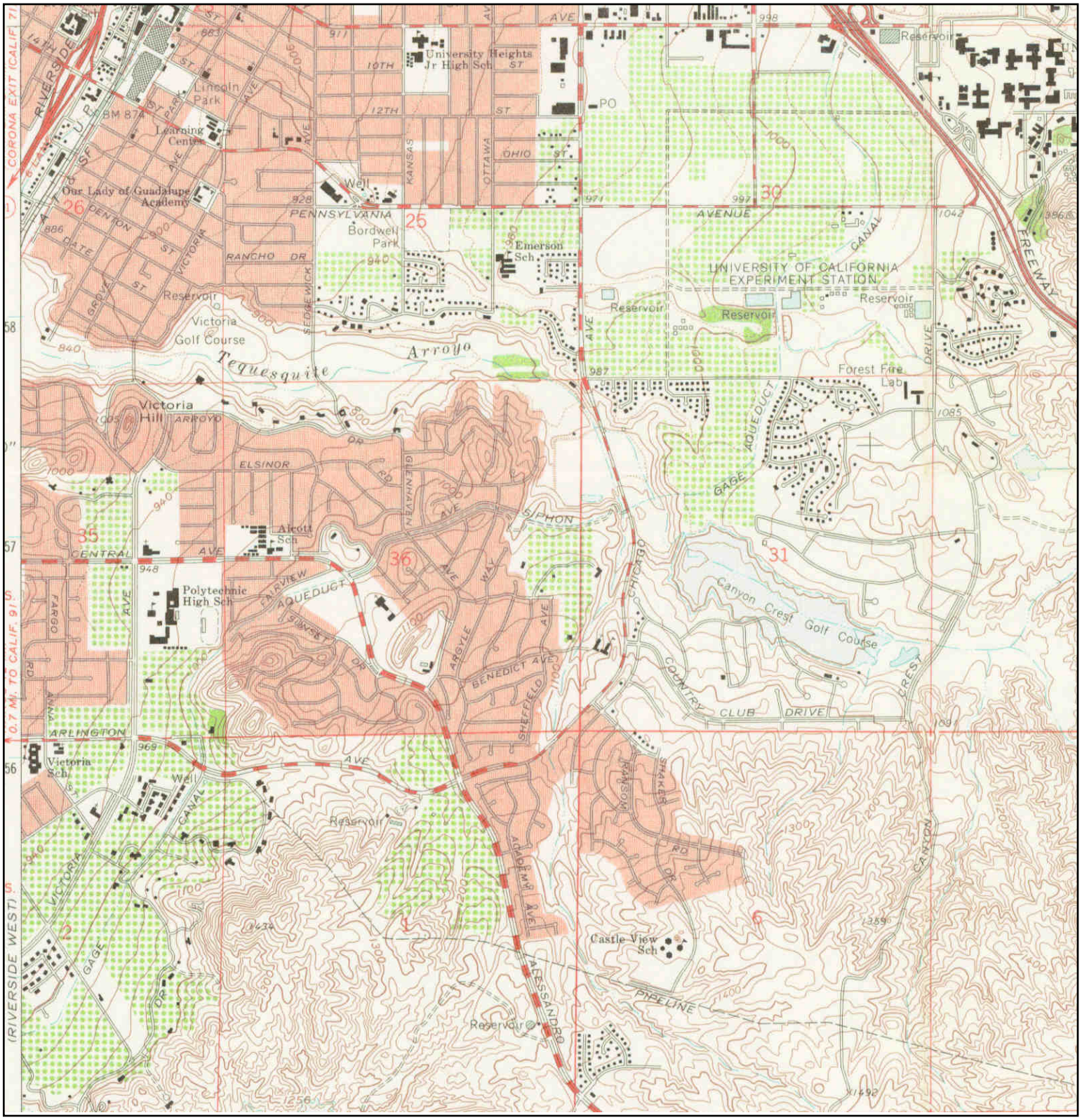
N	TARGET QUAD NAME: RIVERSIDE WEST MAP YEAR: 1980 PHOTOREVISED FROM :1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Magnolia Substation ADDRESS: 3416 Central Avenue Riverside, CA 92506 LAT/LONG: 33.9535 / -117.3828	CLIENT: Rincon CONTACT: Carly Gagen-Cheeney INQUIRY#: 3651854.4 RESEARCH DATE: 07/01/2013

Historical Topographic Map



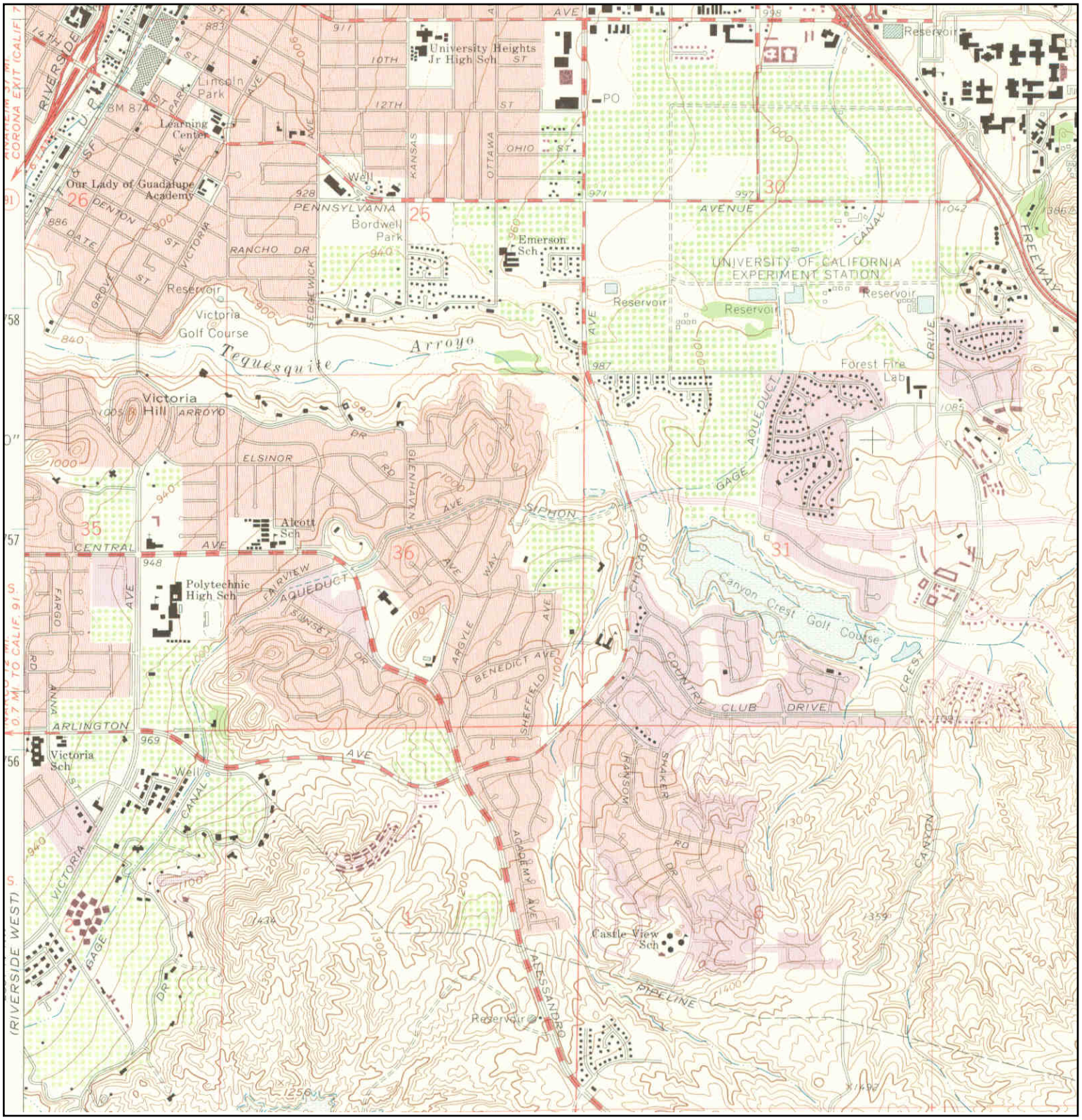
N	ADJOINING QUAD				
	NAME:	RIVERSIDE EAST	SITE NAME:	Magnolia Substation	CLIENT: Rincon
	MAP YEAR:	1953	ADDRESS:	3416 Central Avenue Riverside, CA 92506	CONTACT: Carly Gagen-Cheeney INQUIRY#: 3651854.4
	SERIES:	7.5	LAT/LONG:	33.9535 / -117.3828	RESEARCH DATE: 07/01/2013
	SCALE:	1:24000			

Historical Topographic Map



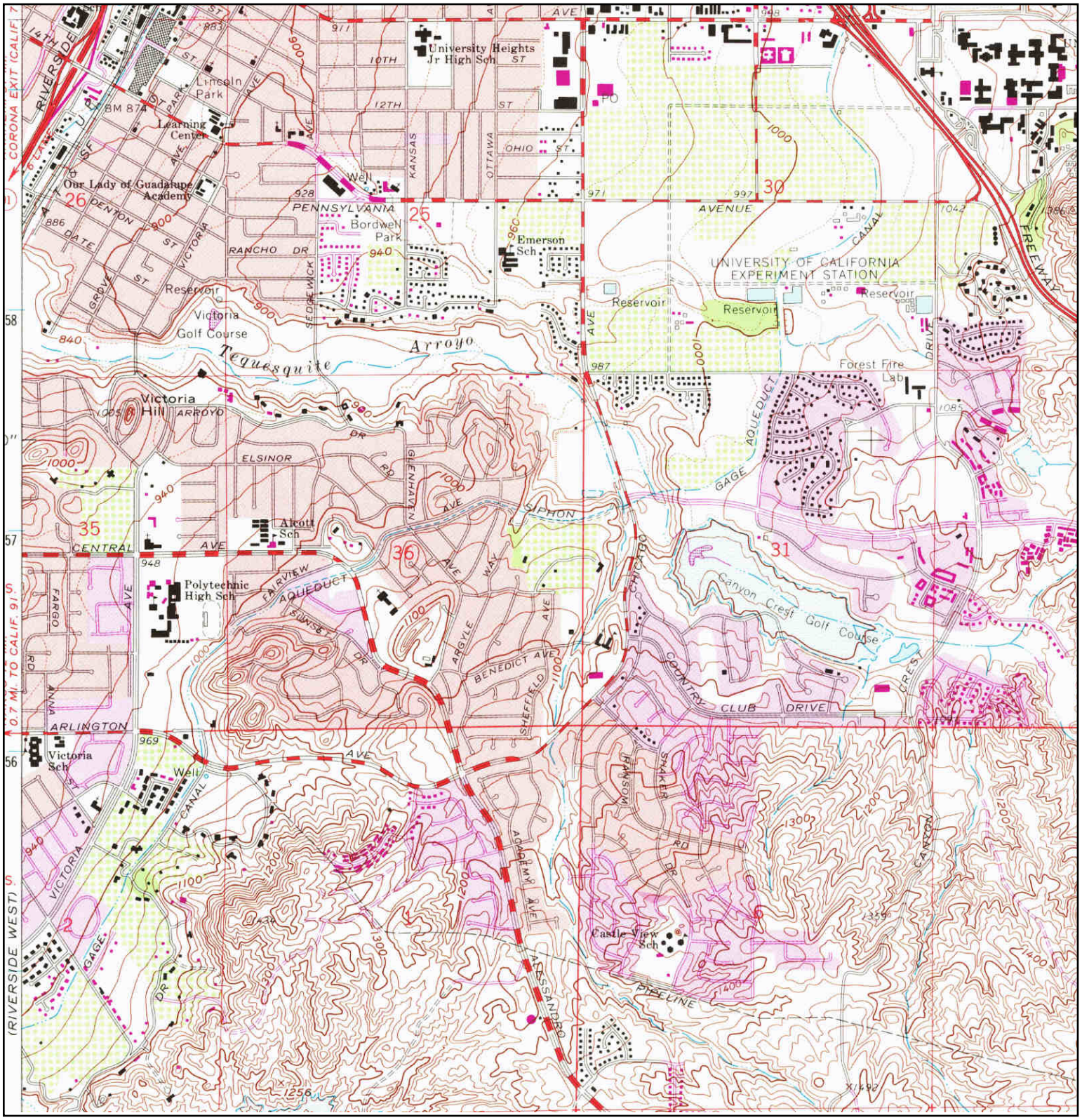
N	ADJOINING QUAD NAME: RIVERSIDE EAST MAP YEAR: 1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Magnolia Substation ADDRESS: 3416 Central Avenue Riverside, CA 92506 LAT/LONG: 33.9535 / -117.3828	CLIENT: Rincon CONTACT: Carly Gagen-Cheeney INQUIRY#: 3651854.4 RESEARCH DATE: 07/01/2013

Historical Topographic Map



N	ADJOINING QUAD		
	NAME: RIVERSIDE EAST	SITE NAME: Magnolia Substation	CLIENT: Rincon
	MAP YEAR: 1973	ADDRESS: 3416 Central Avenue	CONTACT: Carly Gagen-Cheeney
	PHOTOREVISED FROM :1967	Riverside, CA 92506	INQUIRY#: 3651854.4
	SERIES: 7.5	LAT/LONG: 33.9535 / -117.3828	RESEARCH DATE: 07/01/2013
	SCALE: 1:24000		

Historical Topographic Map



N	ADJOINING QUAD NAME: RIVERSIDE EAST MAP YEAR: 1980 PHOTOREVISED FROM :1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Magnolia Substation ADDRESS: 3416 Central Avenue Riverside, CA 92506 LAT/LONG: 33.9535 / -117.3828	CLIENT: Rincon CONTACT: Carly Gagen-Cheeney INQUIRY#: 3651854.4 RESEARCH DATE: 07/01/2013

Magnolia Substation
3416 Central Avenue
Riverside, CA 92506

Inquiry Number: 3651854.3
June 28, 2013

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

6/28/13

Site Name:
Magnolia Substation
3416 Central Avenue
Riverside, CA 92506

EDR Inquiry # 3651854.3

Client Name:
Rincon
180 North Ashwood Avenue
Ventura, CA 93003-0000

Contact: Carly Gagen-Cheeney

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Rincon were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Magnolia Substation
Address: 3416 Central Avenue
City, State, Zip: Riverside, CA 92506
Cross Street:
P.O. # 12-00409
Project: Magnolia Substation Ph I ESA
Certification # 9CE9-43D1-9A9D

Sanborn® Library search results
Certification # 9CE9-43D1-9A9D

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Rincon (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Magnolia Substation
3416 Central Avenue
Riverside, CA 92506

Inquiry Number: 3651854.6
June 28, 2013

The EDR-City Directory Abstract

Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract 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 Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1921 through 2012. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2012	Cole Information Services	-	X	X	-
2007	Cole Information Services	-	X	X	-
2002	SBC PACIFIC BELL	-	X	X	-
2001	Haines & Company, Inc.	-	X	X	-
1996	Pacific Bell	-	X	X	-
1993	Pacific Bell	-	X	X	-
1990	Pacific Bell	-	X	X	-
1986	Pacific Bell Yellow Pages	-	X	X	-
1981	Pacific Telephone	-	X	X	-
1977	Pacific Telephone	-	X	X	-
1970	Pacific Telephone	-	X	X	-
1967	Luskey Brothers & Co.	-	-	-	-
1966	Luskey Brothers & Company Inc.	-	X	X	-
1961	Luskey Brothers & Co.	-	-	-	-
1960	Luskeys Brothers & Co., Publishers	-	X	X	-
1956	Luskey Brothers & Co.	-	-	-	-
1955	Luskeys Brothers & Co., Publishers	-	X	X	-
1951	Los Angeles Directory Co.	-	X	X	-
1946	Southern California Telephone Company	-	X	X	-
1945	Los Angeles Directory Co.	-	X	X	-
1941	Pacific Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	X	X	-
1936	Los Angeles Directory Co.	-	X	X	-
1931	Southern California Telephone Co.	-	-	-	-
1930	Los Angeles Directory Co.	-	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1927	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Kaasen Directory Co.	-	-	-	-
1921	Riverside Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

Address	*Type*	*Findings*
3399 Central Ave	Client Entered	X
3400 Central Ave	Client Entered	X
3300 Central Ave	Client Entered	X

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

3416 Central Avenue
Riverside, CA 92506

FINDINGS DETAIL

Target Property research detail.

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

CENTRAL AVE

3300 CENTRAL AVE

Year	Uses	Source
2012	OLIVEWOOD MEMORIAL PARK	Cole Information Services
2007	OLIVEWOOD MEMORIAL PARK	Cole Information Services

Central Ave

3300 Central Ave

Year	Uses	Source
2002	OLIVEWOOD MEMORIAL PARK	SBC PACIFIC BELL
1996	OLIVEWOOD CEMETERY	Pacific Bell
1990	Olivewood Cemetery	Pacific Bell
1986	OLIVE W OOD CE ME TE RY	Pacific Bell Yellow Pages
1981	OUVE W OOD CE ME TE RY	Pacific Telephone
1977	OLIVI E W OOD CE ME TE RY	Pacific Telephone
1966	Walter J Stafford superintendent	Luskey Brothers & Company Inc.
	Olivewood Cemetery 3300 Central Av Riv	Luskey Brothers & Company Inc.
1960	OIlvewood Cemetery OV 3 a	Luskeys Brothers & Co., Publishers
1955	Olivewood Cemetery OV 3 a	Luskeys Brothers & Co., Publishers
1951	Olivewood Cemetery	Los Angeles Directory Co.
1946	Olivewood Cemetery	Southern California Telephone Company
1945	A 01ivewood Cemetery	Los Angeles Directory Co.

CENTRAL AVE

3399 CENTRAL AVE

Year	Uses	Source
2012	CENTRAL AVE SELF STORAGE	Cole Information Services
2007	CENTRAL AVE SELF STORAGE	Cole Information Services

FINDINGS

Central Ave

3399 Central Ave

Year	*Uses*	*Source*
2002	CENTRAL AVE SELF STORAGE	SBC PACIFIC BELL
	Johnson Rosemary D	SBC PACIFIC BELL
2001	CENTRLAVSLFSTRG	Haines & Company, Inc.
	U HAUL CO DEALER	Haines & Company, Inc.
1996	CENTRAL AVE SELF STORAGE	Pacific Bell
	U HAUL CO	Pacific Bell

CENTRAL AVE

3400 CENTRAL AVE

Year	*Uses*	*Source*
2012	ASSOCIATED THERAPISTS OF RIVERSIDE	Cole Information Services
	TRIMARK PACIFIC HOMES	Cole Information Services
	BECKLUND ROGENE MFCC	Cole Information Services
	BANK OF AMERICA	Cole Information Services
	E3 EXECUTIVE COACHING	Cole Information Services
	ASSET PLANNING & ADMINISTRATION	Cole Information Services
	METLIFE HOME LOANS	Cole Information Services
	VESTAGEE INC	Cole Information Services
	UNITED STATES GOVERNMENT	Cole Information Services
	JACOBS KAREN LMFT	Cole Information Services
	BAYSIDE FINANCIAL GROUP LLC	Cole Information Services
	SHEFFIELD HOMES	Cole Information Services
	H CECILIA STELLA INSURANCE BROKER AG	Cole Information Services
	FHP HEALTH CARE	Cole Information Services
	NEAL MARGARET LCSW	Cole Information Services
	HOT BUY KING	Cole Information Services
2007	TRIMARK PACIFIC HOMES	Cole Information Services
	HOUSE REPRESENTATIVES US	Cole Information Services
	PACIFICARE OF CALIFORNIA	Cole Information Services
	OLD REPUBLIC TITLE CO	Cole Information Services
	ELECTRONIC DATA SYSTEMS CORP	Cole Information Services
	AD VALORUM LLC AMERICAN HOME MORTGAG	Cole Information Services
	AK STROZZI LLC	Cole Information Services

Year	Uses	Source
2007	TUCCERI ASSOCIATES	Cole Information Services
	PACIFIC CARE	Cole Information Services
	BECKLUND ROGENE MFCC	Cole Information Services
	JOANNE JONES MARRIAGE & FAMILY THE	Cole Information Services

Central Ave

3400 Central Ave

Year	Uses	Source
2002	CALIFORNIA	SBC PACIFIC BELL
	ASSOCIATED THERAPISTS OF	SBC PACIFIC BELL
	RIVERSIDE	SBC PACIFIC BELL
	JONES JOANNE MFCC	SBC PACIFIC BELL
	ROBERTS MARLYNE LMFT	SBC PACIFIC BELL
	HISTORIC MISSION INN CORP	SBC PACIFIC BELL
	MARINA MORTGAGE	SBC PACIFIC BELL
	SHEFFIELD HOMES	SBC PACIFIC BELL
	MARINA MORTGAGE	SBC PACIFIC BELL
	UNITED STATES GOVERNMENT	SBC PACIFIC BELL
	OFFICE	SBC PACIFIC BELL
	OLD REPUBLIC TITLE CO	SBC PACIFIC BELL
	BUSINESS BANK OF	SBC PACIFIC BELL
	BLUE SHIELD OF CALIFORNIA	SBC PACIFIC BELL
	BECKLUND ROGENE MFCC	SBC PACIFIC BELL
2001	ASSOCTDTHERAPISTS	Haines & Company, Inc.
	BECKLUNDROGENE	Haines & Company, Inc.
	BLUE SHIELDSALES	Haines & Company, Inc.
	F HP HEALTH CARE	Haines & Company, Inc.
	HISTORICMSSN INN	Haines & Company, Inc.
	JACOBS KAREN MFCC	Haines & Company, Inc.
	JONES JOANNEOMFCC	Haines & Company, Inc.
	ODREPUBLICTITLE	Haines & Company, Inc.
	SHEFFIELD	Haines & Company, Inc.
1996	ROBERTS MARY S FOUNDATION	Pacific Bell
	INLANDERS FOR OLIVE CREST	Pacific Bell
	SHEFFIELD HOMES	Pacific Bell
	UNITED STATES GOVERNMENT	Pacific Bell
	OLD REPUBLIC TITLE COMPANY	Pacific Bell

Year	Uses	Source
1996	FHP HEALTH CARE	Pacific Bell
	BLUE SHIELD OF CALIFORNIA RIVERSIDE SALES	Pacific Bell
	ASSOCIATED THERAPISTS OF RIVERSIDE	Pacific Bell
	JONES JOANNE MFCC	Pacific Bell
	PRP DEVELOPMENT INC	Pacific Bell
	OXFORD HOMES CORP	Pacific Bell
	HISTORIC MISSION INN CORP	Pacific Bell
	LINCOLN CLUB OF RIVERSIDE COUNTY	Pacific Bell
	DRR PROPERTIES	Pacific Bell
	KASNER EDMUND LCSW	Pacific Bell

CENTRAL AVE

3440 CENTRAL AVE

Year	Uses	Source
1955	Van Eck Robt 0 V 3 a	Luskeys Brothers & Co., Publishers
1945	Nord E S	Los Angeles Directory Co.
1939	White C A	Los Angeles Directory Co.
1936	White C A o	Los Angeles Directory Co.
1930	White C A o	Los Angeles Directory Co.

3441 CENTRAL AVE

Year	Uses	Source
1930	Olivewood Cemetery	Los Angeles Directory Co.

3442 CENTRAL AVE

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1981	Wisdom Edw D	Pacific Telephone
1966	Upton Celia Mrs 3442 Central Av Riv	Luskey Brothers & Company Inc.
1960	Upton CA Mrs OV 3 a	Luskeys Brothers & Co., Publishers
1955	Sutherland D M	Luskeys Brothers & Co., Publishers

3443 CENTRAL AVE

Year	Uses	Source
2001	HOLOERJames	Haines & Company, Inc.
	GORDONJohn	Haines & Company, Inc.
1996	READINGS BY DINAH MARIE	Pacific Bell

FINDINGS

Year	Uses	Source
1986	Drapery Den The	Pacific Bell Yellow Pages
	Draper Robert W Jr	Pacific Bell Yellow Pages
	Draperies Ltd Of Riverside	Pacific Bell Yellow Pages
	Draperies Ltd Of So Calif	Pacific Bell Yellow Pages
1977	Ruepping John	Pacific Telephone
	Ruepping Christine	Pacific Telephone
1966	Doran Roberta B Mrs 3443 Central Av Riv	Luskey Brothers & Company Inc.
1960	Doran PR 0 V 3 a	Luskeys Brothers & Co., Publishers
1955	Doran P R 0 V 3 a	Luskeys Brothers & Co., Publishers

3444 CENTRAL AVE

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1981	Wilson Michael & Bonnie	Pacific Telephone
1977	Wisdom David	Pacific Telephone
1960	Kennell CE OV 3 a	Luskeys Brothers & Co., Publishers
1955	Vacant	Luskeys Brothers & Co., Publishers

3447 CENTRAL AVE

Year	Uses	Source
2001	PASOUALIE Din A	Haines & Company, Inc.
	OMUTH Nelson	Haines & Company, Inc.
1996	Pietri Miguel A	Pacific Bell
1981	Michalka Robt E	Pacific Telephone
	Dealy L	Pacific Telephone
1977	Bergelin Eric D	Pacific Telephone
1966	Bergelin Donald C Mary 3447 Central Av Riv	Luskey Brothers & Company Inc.
1960	Knox NB OV 6 a	Luskeys Brothers & Co., Publishers
1955	Bergelin D C 0 V 4 a	Luskeys Brothers & Co., Publishers

3448 CENTRAL AVE

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1977	Mc Phail M	Pacific Telephone
1966	Winstead Juliette Mrs 3448 Central Av Riv	Luskey Brothers & Company Inc.
1960	Maslllo Sara Mrs OV 6 a	Luskeys Brothers & Co., Publishers
1955	I ace W J V 3 a	Luskeys Brothers & Co., Publishers

FINDINGS

3451 CENTRAL AVE

Year	Uses	Source
2001	OCAMERON Margaret	Haines & Company, Inc.
1986	Jackson J R	Pacific Bell Yellow Pages
	Jackson Jas M	Pacific Bell Yellow Pages
	Jackson J L	Pacific Bell Yellow Pages
1966	Kramer Chas W Andree 3451 Central Av Rivc	Luskey Brothers & Company Inc.
1960	Walker Donald OV 4 a	Luskeys Brothers & Co., Publishers

3452 CENTRAL AVE

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1981	Shinn Geo R	Pacific Telephone
1977	Shinn Myrtle	Pacific Telephone
1966	Humphreys Ruth Mrs 3452 Central Av Riv	Luskey Brothers & Company Inc.
1955	Humphrey Ruth T OV 4 a	Luskeys Brothers & Co., Publishers

3453 CENTRAL AVE

Year	Uses	Source
1977	Parks Drew P	Pacific Telephone
1966	Brosseau Roy J Mary 3453 Central Av Riv	Luskey Brothers & Company Inc.
1960	Chulick PJ 0 V 3 a	Luskeys Brothers & Co., Publishers

3454 CENTRAL AVE

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Ward Bruce A	Pacific Bell Yellow Pages
	W ard C	Pacific Bell Yellow Pages
1981	Hannagan G S	Pacific Telephone
1977	Hannagan G S	Pacific Telephone
1966	Guyer Elizabeth E 3454 Central Av Riv	Luskey Brothers & Company Inc.
1960	Guyer Ellz E Mrs OV 3 a	Luskeys Brothers & Co., Publishers
1955	Guyer E E Mrs OV 3 a	Luskeys Brothers & Co., Publishers

3455 CENTRAL AVE

Year	Uses	Source
2001	COUGHLIN Harry W	Haines & Company, Inc.
	COUGHLIN Thelma	Haines & Company, Inc.
1996	Coughlin Harry W & Thelma	Pacific Bell
1986	Coughlin Harry W & Thelma	Pacific Bell Yellow Pages

FINDINGS

Year	Uses	Source
1981	Coughlin Harry W & Thelma	Pacific Telephone
1977	Coughlin Thelma R Mrs	Pacific Telephone
	Coughlin Harry W privte invstgtr	Pacific Telephone
1966	Coughlin HW Thelma 3455 Central Av Riv	Luskey Brothers & Company Inc.
1960	Lehnman Leopoldine Mrs OV 3 a	Luskeys Brothers & Co., Publishers
1955	approx Under constr	Luskeys Brothers & Co., Publishers

3457 CENTRAL AVE

Year	Uses	Source
1986	Christy L J	Pacific Bell Yellow Pages
	I Christy M	Pacific Bell Yellow Pages
1981	Christy L	Pacific Telephone
1977	Christy LJ	Pacific Telephone
1960	Ward PB OV 4 a	Luskeys Brothers & Co., Publishers
1955	approx Under constr	Luskeys Brothers & Co., Publishers

3458 CENTRAL AVE

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1981	Kroh Harry C	Pacific Telephone
1977	Kroh Harry C	Pacific Telephone
1966	Kroh Harry C Helen 3458 Central Av Riv	Luskey Brothers & Company Inc.
1960	roh Harry C OV 3 a	Luskeys Brothers & Co., Publishers
1955	I Kroh Harry C V 3 a	Luskeys Brothers & Co., Publishers

3459 CENTRAL AVE

Year	Uses	Source
2002	Vernon Barbara	SBC PACIFIC BELL
2001	LADDO	Haines & Company, Inc.
	VERNON Barbara	Haines & Company, Inc.
1977	Marietta FL	Pacific Telephone
1960	Locke PM OV 6 a	Luskeys Brothers & Co., Publishers
1955	Locke Paul M V 6 a	Luskeys Brothers & Co., Publishers

3461 CENTRAL AVE

Year	Uses	Source
2002	Ozuna Rebecca	SBC PACIFIC BELL
2001	XXXX	Haines & Company, Inc.
1966	Marietta Florence L 3461 Central Av Riv	Luskey Brothers & Company Inc.
1960	Mar Ietta FL Mrs OV 3 a	Luskeys Brothers & Co., Publishers

Year	Uses	Source
1955	Warden Gene V OV 3 a	Luskeys Brothers & Co., Publishers

3463 CENTRAL AVE

Year	Uses	Source
2001	WIGG 1 NSJoseph	Haines & Company, Inc.
1996	Kramer Jacob G	Pacific Bell
1986	Kramer Jacob G	Pacific Bell Yellow Pages
1981	ONeil Wm F	Pacific Telephone
1977	ONeil Wm F	Pacific Telephone
1960	Blair WP OV 4 a	Luskeys Brothers & Co., Publishers
1955	Vickers W S Mrs OV 3 a	Luskeys Brothers & Co., Publishers

3464 CENTRAL AVE

Year	Uses	Source
2001	MILLER James F	Haines & Company, Inc.
1993	Miller John	Pacific Bell
	Miller Jerry & Susan	Pacific Bell
	Miller Jeffrey D	Pacific Bell
	Miller Jeff & Debora	Pacific Bell
	Miller James F	Pacific Bell
1981	Helmer MA	Pacific Telephone
1977	Helmer M A	Pacific Telephone
1966	Helmer Myrtle A Mrs 3464 Central Av Riv	Luskey Brothers & Company Inc.
1960	Helmer MA Mrs OV 6 a	Luskeys Brothers & Co., Publishers
1955	Hosko Frank OV 4 a	Luskeys Brothers & Co., Publishers

3465 CENTRAL AVE

Year	Uses	Source
2002	Phelps Cort	SBC PACIFIC BELL
2001	XXXX	Haines & Company, Inc.
1996	Millard T M	Pacific Bell
1966	Bamberger Gertrude E Mrs 3465 Central Av Riv	Luskey Brothers & Company Inc.
1960	Bamberger GE Mrs OV 4 a	Luskeys Brothers & Co., Publishers
1955	Brown J V V 3 a	Luskeys Brothers & Co., Publishers

3467 CENTRAL AVE

Year	Uses	Source
2001	9 GREENE Douglas	Haines & Company, Inc.
1986	Dershem Sibyl P	Pacific Bell Yellow Pages

FINDINGS

Year	Uses	Source
1986	Dershem Gerald H & Sibyl P	Pacific Bell Yellow Pages
	Dershem Gary M	Pacific Bell Yellow Pages
1981	Graham Jos M	Pacific Telephone
1977	Smith Douglas R	Pacific Telephone
1966	Gardner VR 3467 Central Av Riv	Luskey Brothers & Company Inc.
1960	Couch WA 0 V 3 a	Luskeys Brothers & Co., Publishers
1955	Lorenz Lucille Mrs OV 3 a	Luskeys Brothers & Co., Publishers

3468 CENTRAL AVE

Year	Uses	Source
1977	Bartko Richard	Pacific Telephone
1966	Burg Jack Laura 3468 Central Riv	Luskey Brothers & Company Inc.
1960	Carson RE OV 3 a	Luskeys Brothers & Co., Publishers
1955	Carson Robt E D OV 3 a	Luskeys Brothers & Co., Publishers

3469 CENTRAL AVE

Year	Uses	Source
2002	Burger Georgia	SBC PACIFIC BELL
2001	XXXX	Haines & Company, Inc.
1986	Greene David	Pacific Bell Yellow Pages
1981	Castle Dan J	Pacific Telephone
1977	Castle Dan J	Pacific Telephone
1966	Hinton Helen D Mrs 3469 Central Av Riv	Luskey Brothers & Company Inc.
1960	La Monk GW OV 4 a	Luskeys Brothers & Co., Publishers
1955	Luttman R F 0 V 6 a	Luskeys Brothers & Co., Publishers

3471 CENTRAL AVE

Year	Uses	Source
2001	OGREENE Douglas	Haines & Company, Inc.
	STOZZINISandra	Haines & Company, Inc.
1981	Haf ele B K	Pacific Telephone
	Calvaruzo Joe	Pacific Telephone
	Konjevod C	Pacific Telephone
1977	Wilson Curtis H	Pacific Telephone
1960	Waters HF Jr 0 V 4 a	Luskeys Brothers & Co., Publishers
1955	Lyddon J A 0 V 6 a	Luskeys Brothers & Co., Publishers

3473 CENTRAL AVE

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

Year	Uses	Source
1981	Galdik Walter	Pacific Telephone
1977	Cederdahl B	Pacific Telephone
1966	Guinn Geo E Mae 3473 Central Av Riv	Luskey Brothers & Company Inc.
1960	Gulnn GE OV 4 a	Luskeys Brothers & Co., Publishers
1955	Gillespie Richd D bldg contr V 4 a	Luskeys Brothers & Co., Publishers

3474 CENTRAL AVE

Year	Uses	Source
2001	BERTRANDJohn	Haines & Company, Inc.
	XXXX	Haines & Company, Inc.
1981	Griffin K	Pacific Telephone
1966	Schweitrer Egon 3474 Central Av Riv h German Fancy Foods	Luskey Brothers & Company Inc.
1960	Vacant	Luskeys Brothers & Co., Publishers
1955	Drake Robt L V 4 a	Luskeys Brothers & Co., Publishers

3475 CENTRAL AVE

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1977	Alvarado Arthur	Pacific Telephone
	Alvarado Margaret	Pacific Telephone
1960	Shippee FR V 4 a	Luskeys Brothers & Co., Publishers
1955	Shipper F R V 4 a	Luskeys Brothers & Co., Publishers

3477 CENTRAL AVE

Year	Uses	Source
1977	Crosley T	Pacific Telephone
1960	Bailey HR OV 6 a	Luskeys Brothers & Co., Publishers
1955	Wilson Lillie Mrs DOV 3 a	Luskeys Brothers & Co., Publishers

3478 CENTRAL AVE

Year	Uses	Source
1977	Almquist C W	Pacific Telephone
1966	Almquist Clarence W Nadine 3478 Central Av Riu	Luskey Brothers & Company Inc.
1960	Almquist CW V 3 a	Luskeys Brothers & Co., Publishers
1955	Almquist Clarence W OV 3 a	Luskeys Brothers & Co., Publishers

3479 CENTRAL AVE

Year	Uses	Source
1960	Janke AW V 6 a	Luskeys Brothers & Co., Publishers

Year	Uses	Source
1955	Janke Arth W OV 6 a	Luskeys Brothers & Co., Publishers

3481 CENTRAL AVE

Year	Uses	Source
1966	Heathcote Jacqueline A Mrs 3481 Central Av Riv h 1 head waitress3481	Luskey Brothers & Company Inc.
1960	Alexander ML Mrs OV 4 a	Luskeys Brothers & Co., Publishers
1955	Alexander Margt L Mrs 0 V 4 a	Luskeys Brothers & Co., Publishers

3482 CENTRAL AVE

Year	Uses	Source
1977	Ladwig Michael W	Pacific Telephone
1966	Echer Edward H Jr Geraldine 3482 Central Av Riv	Luskey Brothers & Company Inc.
1955	Dotts D R O V 3 a	Luskeys Brothers & Co., Publishers

3483 CENTRAL AVE

Year	Uses	Source
1960	Losee ME 0 V 4 a	Luskeys Brothers & Co., Publishers
1955	Losee M E V 4 a	Luskeys Brothers & Co., Publishers

3484 CENTRAL AVE

Year	Uses	Source
2012	CITY NATIONAL BANK	Cole Information Services
2007	CITY NATIONAL BANK	Cole Information Services
2002	CITY NATIONAL BANK	SBC PACIFIC BELL
2001	COMLBNKNG	Haines & Company, Inc.
	C 17 YNATIONAL BANK	Haines & Company, Inc.
	CITY NATIONALBANK	Haines & Company, Inc.
	HALVERSONGaylon	Haines & Company, Inc.
1996	RIVERSIDE NATIONAL BANK	Pacific Bell
1993	Halverson Gaylon	Pacific Bell
1986	TTY Only	Pacific Bell Yellow Pages
1981	Halversan Gaylon	Pacific Telephone
1977	Halverson Gaylon	Pacific Telephone

3485 CENTRAL AVE

Year	Uses	Source
2001	HOLDENAmanda	Haines & Company, Inc.
1966	Lawson Geo C Lucile 3485 Central Av Riv	Luskey Brothers & Company Inc.
1960	Vacant	Luskeys Brothers & Co., Publishers

FINDINGS

Year	Uses	Source
1955	Hilton J 0 V 6 a	Luskeys Brothers & Co., Publishers

3486 CENTRAL AVE

Year	Uses	Source
1966	Mason Saml W Myrna 3486 Central Av Riv	Luskey Brothers & Company Inc.
1960	Mason SW OV 6 a	Luskeys Brothers & Co., Publishers
1955	Mason Sami W T OV 6 a	Luskeys Brothers & Co., Publishers

3487 CENTRAL AVE

Year	Uses	Source
2012	ENTERPRISE NETWORK SOLUTIONS	Cole Information Services
	YUAN ROBERT DDS	Cole Information Services
	ELLIOTT JAY DDS	Cole Information Services
	STOCKDALE ROBERT DDS MS	Cole Information Services
	STOCKDALE JOHN DDS	Cole Information Services
	JORDAN JOSEPH DDS	Cole Information Services
	STOCKDALE ROBERT DDS	Cole Information Services
	DENTAL ASSOCIATES OF RIVERSIDE DDS	Cole Information Services
	LEE GARY DDS	Cole Information Services
	MOORE RONALD DDS	Cole Information Services
2007	STOCKDALE ROBERT DDS	Cole Information Services
	DENTAL ASSOCIATES OF RIVERSIDE	Cole Information Services
	ELLIOTT JAY R DDS	Cole Information Services
2002	MCEWEN LAWERNECE DOS	SBC PACIFIC BELL
	RIVERSIDE	SBC PACIFIC BELL
	DENTALASSOCIATES OF	SBC PACIFIC BELL
2001	LEEDARYDDDS	Haines & Company, Inc.
	ELLIOTTJAYRDDS	Haines & Company, Inc.
	OF RIVERSIDE	Haines & Company, Inc.
	DENTALASSOCIATES	Haines & Company, Inc.
1996	DENTAL ASSOCIATES OF RIVERSIDE	Pacific Bell
1986	Administration	Pacific Bell Yellow Pages
	New Loans	Pacific Bell Yellow Pages
	Existing Loans	Pacific Bell Yellow Pages
	Deposit Account Information	Pacific Bell Yellow Pages
	Magnolia Center Branch	Pacific Bell Yellow Pages
	Magnolia Center Branch	Pacific Bell Yellow Pages
1981	BRAN CH OFFICE S	Pacific Telephone

Year	Uses	Source
1977	Branch Offices	Pacific Telephone
1960	Parrott JW OV 4 a	Luskeys Brothers & Co., Publishers
1955	Adams G T Jr DV 4 a	Luskeys Brothers & Co., Publishers

3489 CENTRAL AVE

Year	Uses	Source
1960	Smith RM OV 6 a	Luskeys Brothers & Co., Publishers
1955	Greene H L	Luskeys Brothers & Co., Publishers

LAURA LN

3452 LAURA LN

Year	Uses	Source
1960	Powell CH DV 6 a	Luskeys Brothers & Co., Publishers

3458 LAURA LN

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Fritz Chelsey	Pacific Bell Yellow Pages
1977	Rochford CA	Pacific Telephone
1966	Min 5 Attempts Made	Luskey Brothers & Company Inc.
	No Return	Luskey Brothers & Company Inc.
1960	Broughton Emilee Mrs DV 6 a	Luskeys Brothers & Co., Publishers
1955	Shaw B W V 3 a	Luskeys Brothers & Co., Publishers

3459 LAURA LN

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Suzara Edw M	Pacific Bell Yellow Pages
1981	Suzara Edw M	Pacific Telephone
1966	Weinstock Benj Vivian 3459 Laura Ln Riv	Luskey Brothers & Company Inc.
1960	Welnstock Benj OV 6 a	Luskeys Brothers & Co., Publishers
1955	Talmant Dominick	Luskeys Brothers & Co., Publishers

3460 LAURA LN

Year	Uses	Source
1966	No Return	Luskey Brothers & Company Inc.
	Mir 5 Attenrpts Made	Luskey Brothers & Company Inc.

FINDINGS

3464 LAURA LN

Year	Uses	Source
2001	SANCHEZ Frank	Haines & Company, Inc.
1981	Cosetta Andrew R	Pacific Telephone
1966	No Return	Luskey Brothers & Company Inc.
	Min 5 Attempts Made	Luskey Brothers & Company Inc.
1960	Griffin DA D V 6 a	Luskeys Brothers & Co., Publishers
1955	vacant	Luskeys Brothers & Co., Publishers

3465 LAURA LN

Year	Uses	Source
1981	Cooper HS	Pacific Telephone
1977	Cooper H S	Pacific Telephone
1966	Schluster Raymond A Doris 3465 Laura Ln Riv	Luskey Brothers & Company Inc.
1960	Schbster RA DV 4 a	Luskeys Brothers & Co., Publishers
1955	Schuster R A C V 4 a	Luskeys Brothers & Co., Publishers

3468 LAURA LN

Year	Uses	Source
2001	PAUL Richard	Haines & Company, Inc.
1966	Landers Ernest V Dolores 3468 Laura Ln Riv	Luskey Brothers & Company Inc.
1960	Landers EV D OV 3 a	Luskeys Brothers & Co., Publishers
1955	Landers E V V 3 a	Luskeys Brothers & Co., Publishers

3469 LAURA LN

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1981	Preciado Willard A	Pacific Telephone
1977	Preciado Willard A	Pacific Telephone
1966	Preciado Willard Nellie 3469 Laura Ln Rivo	Luskey Brothers & Company Inc.
1960	Preclado Willard DV 6 a	Luskeys Brothers & Co., Publishers
1955	Prec:ado Willard OV 6 a	Luskeys Brothers & Co., Publishers

3471 LAURA LN

Year	Uses	Source
1966	Beavers Clyde D Margie 3471 Laura Ln Riv	Luskey Brothers & Company Inc.

FINDINGS

3474 LAURA LN

Year	Uses	Source
2002	AM Paul	SBC PACIFIC BELL
2001	CO PAUL	Haines & Company, Inc.
	PAUL AM ELECTRIC	Haines & Company, Inc.
1986	Paul A M Electric Co	Pacific Bell Yellow Pages
1966	Paul Andrew M Julie 3474 Laura Ln Riv	Luskey Brothers & Company Inc.
1960	Petrisko BC Mrs DV 4 a	Luskeys Brothers & Co., Publishers
1955	Axtell E M V 6 a	Luskeys Brothers & Co., Publishers

3475 LAURA LN

Year	Uses	Source
1966	Lelwica Vora Mrs 3475 Laura Ln Riv	Luskey Brothers & Company Inc.
1960	Lelwica LC V	Luskeys Brothers & Co., Publishers
1955	Lelwica L J	Luskeys Brothers & Co., Publishers

3478 LAURA LN

Year	Uses	Source
2001	DAGOSTINTim	Haines & Company, Inc.
1996	Ernst John	Pacific Bell
1966	Munson Chas R Colleen 3478 Laura Ln Riv	Luskey Brothers & Company Inc.
1960	Laughlln RJ DOV 3 a	Luskeys Brothers & Co., Publishers
1955	Laughlin R J 0 V 3 a	Luskeys Brothers & Co., Publishers

3479 LAURA LN

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1977	Heidreth Flora P	Pacific Telephone
1960	Pusatera EJ OV 4 a	Luskeys Brothers & Co., Publishers
1955	Pusatera E J 0 V 4 a	Luskeys Brothers & Co., Publishers

MONO DR

3380 MONO DR

Year	Uses	Source
2001	YAKUTISAlexander	Haines & Company, Inc.
1977	Lang Henry Lt Col	Pacific Telephone
1966	Worthington Geo E Irene 3380 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Rouse HF 0 V 4 a	Luskeys Brothers & Co., Publishers

Year	Uses	Source
1955	Rouse H F OV 4 a	Luskeys Brothers & Co., Publishers

3386 MONO DR

Year	Uses	Source
2001	STROUDB	Haines & Company, Inc.
1986	Strouds Mobile Home Transporting	Pacific Bell Yellow Pages
	Stroud Homer	Pacific Bell Yellow Pages
1981	Strouds Mobile Home Transporting	Pacific Telephone
	Stroud Homer	Pacific Telephone
1977	Sltrouds Mobile Home Transporting	Pacific Telephone
1966	Stroud Homer J Irene 3386 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Gaffey JT OV 3 a	Luskeys Brothers & Co., Publishers
1955	Tyson M B Mrs V 3 a	Luskeys Brothers & Co., Publishers

3391 MONO DR

Year	Uses	Source
2001	RITTERJas S	Haines & Company, Inc.
1986	Ritter Jas S	Pacific Bell Yellow Pages
1981	Ritter Jas S	Pacific Telephone
1977	Ritter Jas S	Pacific Telephone
1966	Ritter Jas S Helen 3391 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	RItter JS OV 4 a	Luskeys Brothers & Co., Publishers
1955	Ritter J S V 4 a	Luskeys Brothers & Co., Publishers

3392 MONO DR

Year	Uses	Source
2001	ABALLI Richard	Haines & Company, Inc.
1986	Mackler Jas P	Pacific Bell Yellow Pages
1981	Mackler Jas P	Pacific Telephone
1977	Stahl F Whitney	Pacific Telephone
1966	Stahl F Whitney Alyce 3392 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Stahl FW OV 4 a	Luskeys Brothers & Co., Publishers
1955	French A M V 3 a	Luskeys Brothers & Co., Publishers

3396 MONO DR

Year	Uses	Source
2001	MANSFIELD Robert	Haines & Company, Inc.
1986	Schmitt T	Pacific Bell Yellow Pages
	Schmitt Robt M	Pacific Bell Yellow Pages

FINDINGS

Year	Uses	Source
1966	Salisbury John E Kathryn 3396 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Sallsbury JE OV 3 a	Luskeys Brothers & Co., Publishers
1955	Salisbury J E OV 3 a	Luskeys Brothers & Co., Publishers

3402 MONO DR

Year	Uses	Source
2002	Combs Veta R	SBC PACIFIC BELL
	Combs Gregory & Wannary	SBC PACIFIC BELL
2001	COMBS Vela R	Haines & Company, Inc.
1996	Combs Veta R	Pacific Bell
1986	Combs Veta R	Pacific Bell Yellow Pages
	Combs E C	Pacific Bell Yellow Pages
1981	Combs Veta R	Pacific Telephone
	Combs E C	Pacific Telephone
1977	Combs Veta R	Pacific Telephone
	Combs E C	Pacific Telephone
1966	Mitzner Thee B Rev Ellen 3402 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Nelson RW OV 3 a	Luskeys Brothers & Co., Publishers
1955	Nelson R W V OV 3 a	Luskeys Brothers & Co., Publishers

3410 MONO DR

Year	Uses	Source
2002	Gerdes D R	SBC PACIFIC BELL
1996	Gerdes D R	Pacific Bell
1986	Gerdes D R	Pacific Bell Yellow Pages
1981	Gerdes DR	Pacific Telephone
1977	Gerdes DR	Pacific Telephone
1966	Gerdes D Robt Jane 3410 Mono Pr Riv	Luskey Brothers & Company Inc.
1955	Gerdes D R V 3 a	Luskeys Brothers & Co., Publishers

3424 MONO DR

Year	Uses	Source
2002	Salisbury Kathyrn I	SBC PACIFIC BELL
2001	SALISBURY Kalhyml	Haines & Company, Inc.
1966	Herschler Robt B Judith 3424 Mono Dr Rivo	Luskey Brothers & Company Inc.
1960	Leighton Jos Jr OV 6 a	Luskeys Brothers & Co., Publishers
1955	Leighton Jos V 6 a	Luskeys Brothers & Co., Publishers

FINDINGS

3429 MONO DR

Year	Uses	Source
2001	MUG 1 SHIMA Byron	Haines & Company, Inc.
1966	Powell Clayton D Helen 3429 Mono Dr Riv	Luskey Brothers & Company Inc.
1955	Phillips W E OV 6 a	Luskeys Brothers & Co., Publishers

3432 MONO DR

Year	Uses	Source
2001	PIZZIFREDSIeven	Haines & Company, Inc.
1996	Gallaher Bill & Nancy	Pacific Bell
1986	Child Evangelism Fellowship Of Greater Riverside	Pacific Bell Yellow Pages
	Gallaher Bill & Nancy	Pacific Bell Yellow Pages
	Gallaher Hugh M	Pacific Bell Yellow Pages
1981	Gallagher Ray L & Elna W	Pacific Telephone
1966	Gallaher Hugh M Elna 3432 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Ga Ilaher HM OV 3 a	Luskeys Brothers & Co., Publishers
1955	Gallaher H M 0 V 3 a	Luskeys Brothers & Co., Publishers

3436 MONO DR

Year	Uses	Source
2001	LOVELLMark	Haines & Company, Inc.
1986	Ritzau Bob	Pacific Bell Yellow Pages
1977	Shettel Roy J	Pacific Telephone
1966	Shettel Roy J Mary 3436 Mono Dr Ri v	Luskey Brothers & Company Inc.
1960	Shette l RJ OV 3 a	Luskeys Brothers & Co., Publishers
1955	Shettef R J V 3 a	Luskeys Brothers & Co., Publishers

3439 MONO DR

Year	Uses	Source
2001	HART Clarence	Haines & Company, Inc.
1966	Kelsey Harry W Jo 3439 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Kelsey HW OV 4 a	Luskeys Brothers & Co., Publishers
1955	I elsey H W V 4 a	Luskeys Brothers & Co., Publishers

3440 MONO DR

Year	Uses	Source
2001	OKANE Morgan	Haines & Company, Inc.
1977	Cluse Eugene	Pacific Telephone
1966	Cluse Eug E Joanne 3440 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Cluse EE OV 6 a	Luskeys Brothers & Co., Publishers

FINDINGS

Year	Uses	Source
1955	Cluse E E D V 6 a	Luskeys Brothers & Co., Publishers

3443 MONO DR

Year	Uses	Source
2001	LANG Edward 00 D	Haines & Company, Inc.
1986	Lang Edw C	Pacific Bell Yellow Pages
1981	Lang Edw C	Pacific Telephone
	Gardner Jas M Mrs	Pacific Telephone
1966	Lang Edw C Betty 3443 Mono Dr Riv S	Luskey Brothers & Company Inc.
1960	Lang EC OV 6 a	Luskeys Brothers & Co., Publishers
1955	Lang E C DV 6 a	Luskeys Brothers & Co., Publishers

3444 MONO DR

Year	Uses	Source
2001	SYKORA Frderic	Haines & Company, Inc.
1966	f Barton Walter C Helen 3444 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Tomslc SP 0 V 3 a	Luskeys Brothers & Co., Publishers
1955	Tomsic S P D 0 V 3 a	Luskeys Brothers & Co., Publishers

3447 MONO DR

Year	Uses	Source
2001	FROMDAHLM	Haines & Company, Inc.
1986	Newton S	Pacific Bell Yellow Pages
1977	Whitford Janet	Pacific Telephone
1966	Plymate Gladys 3447 Mono Dr Riv h	Luskey Brothers & Company Inc.
1960	Squlres WE OV 6 a	Luskeys Brothers & Co., Publishers
1955	Ellison A C D V 6 a	Luskeys Brothers & Co., Publishers

3448 MONO DR

Year	Uses	Source
2001	SIMPSONJames	Haines & Company, Inc.
1977	Waddell Craige	Pacific Telephone
1966	Campbell Zula G Mrs 3448 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Plnto WJ 0 V 4 a	Luskeys Brothers & Co., Publishers
1955	Burgess C L OV 3 a	Luskeys Brothers & Co., Publishers

3451 MONO DR

Year	Uses	Source
2001	ESPOSITORobert	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
1986	Andrews Martha L	Pacific Bell Yellow Pages
	Andrews Richard G	Pacific Bell Yellow Pages
1981	Andrews Martha L	Pacific Telephone
	Andrews Richard G	Pacific Telephone
1977	Andrews Richard G	Pacific Telephone
	Andrews Martha L	Pacific Telephone
1966	Mansmann FJ 3451 Mono Dr Riv	Luskey Brothers & Company Inc.
1955	Sherr ll M C V 6 a	Luskeys Brothers & Co., Publishers

3452 MONO DR

Year	Uses	Source
2001	WHITEGeraldine	Haines & Company, Inc.
1966	Kopu Isky Sam L Loui se 3452 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	1 opulsky Sam OV 3 a	Luskeys Brothers & Co., Publishers
1955	opulsky Sam DV 3 a	Luskeys Brothers & Co., Publishers

3455 MONO DR

Year	Uses	Source
2002	Herzog Robt J	SBC PACIFIC BELL
2001	HERZOGRobt J	Haines & Company, Inc.
1996	Herzog Robt J	Pacific Bell
1986	Herzog Robt J	Pacific Bell Yellow Pages
1981	Herzog Robt J	Pacific Telephone
1977	Herzog Robt J	Pacific Telephone
1966	Herzog Robt J Mary 3455 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Herzog RJ OV 6 a	Luskeys Brothers & Co., Publishers
1955	Williams B A V 6 a	Luskeys Brothers & Co., Publishers

3456 MONO DR

Year	Uses	Source
2001	LANG Edward	Haines & Company, Inc.
1960	Huntoon RC OV 4 a	Luskeys Brothers & Co., Publishers
1955	Huntoon R C D V 4 a	Luskeys Brothers & Co., Publishers

3459 MONO DR

Year	Uses	Source
2001	SERWY Christopher	Haines & Company, Inc.
1986	Parker Newman E	Pacific Bell Yellow Pages
	Parker V A	Pacific Bell Yellow Pages

FINDINGS

Year	Uses	Source
1981	Parker Newman E	Pacific Telephone
	Parker V A	Pacific Telephone
1977	Parker VA	Pacific Telephone
	Parker Merlin K	Pacific Telephone
1966	Doss Jas 3459 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Brock RE OV 4 a	Luskeys Brothers & Co., Publishers
1955	Brock R E DV V 6 a	Luskeys Brothers & Co., Publishers

3463 MONO DR

Year	Uses	Source
2001	MILLER Dean	Haines & Company, Inc.
1966	Miller Dean 0 Joan 3463 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Noguelra ER OV 7 a	Luskeys Brothers & Co., Publishers
1955	Johnson I L 0 V 6 a	Luskeys Brothers & Co., Publishers

3467 MONO DR

Year	Uses	Source
2002	Moreno Byron	SBC PACIFIC BELL
2001	MORENO Byron 909 7 S	Haines & Company, Inc.
1966	Ih 6 agent Prudential Insurance Co	Luskey Brothers & Company Inc.
	Condran Robt C Phyllis 3467 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Morrls RCJr OV 4 a	Luskeys Brothers & Co., Publishers
1955	Gregory L R V 3 a	Luskeys Brothers & Co., Publishers

3468 MONO DR

Year	Uses	Source
2002	Livsey F	SBC PACIFIC BELL
2001	MARTINELU Dorathy	Haines & Company, Inc.
	LIVSEYFR	Haines & Company, Inc.
1996	Livsey F R	Pacific Bell
1986	Llvsey H M	Pacific Bell Yellow Pages
	Livsey FR	Pacific Bell Yellow Pages
1981	Llvsey FR	Pacific Telephone
1977	Livsey F R	Pacific Telephone
1966	Schill Jos C Cybil res 3468 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Schill JC OV 4 a	Luskeys Brothers & Co., Publishers
1955	Root F F 0 V 4 a	Luskeys Brothers & Co., Publishers

FINDINGS

3471 MONO DR

Year	Uses	Source
2001	BARKLEYVeraiece	Haines & Company, Inc.
1981	Bolton Chas W	Pacific Telephone
1977	Reed Richard J	Pacific Telephone
1966	No Return	Luskey Brothers & Company Inc.
	Min 5 Attempts Made	Luskey Brothers & Company Inc.
1960	Hubbard WM OV 6 a	Luskeys Brothers & Co., Publishers
1955	Edgerly R H OV 6 a	Luskeys Brothers & Co., Publishers

3472 MONO DR

Year	Uses	Source
2001	GOMEZAndrew	Haines & Company, Inc.
1996	Haynes Jack M	Pacific Bell
1986	Haynes Jack M	Pacific Bell Yellow Pages
1981	Haynes Jack M	Pacific Telephone
1977	Haynes Jack M	Pacific Telephone
1966	Haynes Jack M Dorothy 3472 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Haynes JM OV 4 a	Luskeys Brothers & Co., Publishers
1955	St Clair N V Mrs OV 6 a	Luskeys Brothers & Co., Publishers

3476 MONO DR

Year	Uses	Source
2002	Payne C II	SBC PACIFIC BELL
2001	PAYNEC 3D	Haines & Company, Inc.
1996	Payne C III	Pacific Bell
1986	Goeman Richard D	Pacific Bell Yellow Pages
1981	Goeman Richard D	Pacific Telephone
1977	Goeman Richard D	Pacific Telephone
1966	Scott Jas R 3476 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Scott JR OV 3 a	Luskeys Brothers & Co., Publishers
1955	Scott J R V 3 a	Luskeys Brothers & Co., Publishers

3480 MONO DR

Year	Uses	Source
2001	ROWDEN Richard 909 E	Haines & Company, Inc.
1986	Rowden Richard	Pacific Bell Yellow Pages
1981	Rowden Richard	Pacific Telephone
1977	Rowden Richard	Pacific Telephone
1966	Foster Albt E Eleanor 3480 Mono Dr Riv	Luskey Brothers & Company Inc.

FINDINGS

Year	Uses	Source
1960	Jeffrey TJ OV 6 a	Luskeys Brothers & Co., Publishers
1955	Hollis R H V 4 a	Luskeys Brothers & Co., Publishers

3487 MONO DR

Year	Uses	Source
2001	PAGDAlber	Haines & Company, Inc.
1977	Page Albert L	Pacific Telephone
1966	Harris CH Altamarie 3487 Mono Dr Riv o	Luskey Brothers & Company Inc.
1960	Daly WJ Jr 0 V 6 a	Luskeys Brothers & Co., Publishers
1955	Courtney R H V 6 a	Luskeys Brothers & Co., Publishers

3491 MONO DR

Year	Uses	Source
2001	DEVINERichard	Haines & Company, Inc.
1986	Butler Fred A	Pacific Bell Yellow Pages
	Butler G	Pacific Bell Yellow Pages
1977	Pelliter John R	Pacific Telephone
1966	Leavitt Morgan D Vickie 3491 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Miller PR OV 6 a	Luskeys Brothers & Co., Publishers
1955	Fiebelkorn J A Mrs OV 3 a	Luskeys Brothers & Co., Publishers

3495 MONO DR

Year	Uses	Source
2001	BROWN Frank	Haines & Company, Inc.
1977	Berndt R A	Pacific Telephone
1966	Marchand Lawrence Ruby 3495 Mono Dr Riv	Luskey Brothers & Company Inc.
1960	Johnson BC OV 6 a	Luskeys Brothers & Co., Publishers
1955	Johnson Byron C OV 6 a	Luskeys Brothers & Co., Publishers

3499 MONO DR

Year	Uses	Source
2012	HUNT EDWARD J	Cole Information Services
2001	CURINGAVtrginsa	Haines & Company, Inc.
1981	Enfinger Irby	Pacific Telephone
1977	Enfinger Irby	Pacific Telephone
1966	Enfinger Irby Mary 3499 Mono Dr Riv	Luskey Brothers & Company Inc.
	h 1 carrier Post Dffice	Luskey Brothers & Company Inc.
1960	Enflnger Irby OV 3 a	Luskeys Brothers & Co., Publishers
1955	Donaldson C E OV 3 a	Luskeys Brothers & Co., Publishers

FINDINGS

NEVA PL

6306 NEVA PL

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1960	Pinhero JE D V 4 a	Luskeys Brothers & Co., Publishers
1955	Nordlund E M OV 6 a	Luskeys Brothers & Co., Publishers

6316 NEVA PL

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1966	Boyd David J Karen 6316 Neva Pl Riv	Luskey Brothers & Company Inc.
1960	Kerfoot RR DV 4 a	Luskeys Brothers & Co., Publishers
1955	Rowland J W C V 3 a	Luskeys Brothers & Co., Publishers

6318 NEVA PL

Year	Uses	Source
1981	Thompson Kathy	Pacific Telephone
1966	Winters Virgil T Charlotte 6318 Neva Pl Riv	Luskey Brothers & Company Inc.
1960	Barton WC OV 3 a	Luskeys Brothers & Co., Publishers
1955	Cairl E R V 3 a	Luskeys Brothers & Co., Publishers

6319 NEVA PL

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1966	Sauman Mabel C 6319 Nova Pl Rio	Luskey Brothers & Company Inc.
1960	Kennedy JT OV 3 a	Luskeys Brothers & Co., Publishers
1955	Parkes C A CV 6 a	Luskeys Brothers & Co., Publishers

6321 NEVA PL

Year	Uses	Source
1966	Fassotte John W Sara 6321 Neova Pl Riv	Luskey Brothers & Company Inc.
1960	Miller BM Mrs OV 4 a	Luskeys Brothers & Co., Publishers
1955	Rosendahl J M V 3 a	Luskeys Brothers & Co., Publishers

6324 NEVA PL

Year	Uses	Source
1960	Jones KP V OV 6 a	Luskeys Brothers & Co., Publishers
1955	Edwards P W V 3 a	Luskeys Brothers & Co., Publishers

FINDINGS

6326 NEVA PL

Year	Uses	Source
1966	Hopelain David G Patricia 6326 Neva Pl Riv	Luskey Brothers & Company Inc.
1960	Porges DE OV 6 a	Luskeys Brothers & Co., Publishers
1955	Vacant	Luskeys Brothers & Co., Publishers

6332 NEVA PL

Year	Uses	Source
1966	Schneider Earl W Irene 6332 Neva Pl Riv	Luskey Brothers & Company Inc.
1960	Struble ML OV 4 a	Luskeys Brothers & Co., Publishers
1955	Cluff B L	Luskeys Brothers & Co., Publishers

6334 NEVA PL

Year	Uses	Source
1986	Demers David	Pacific Bell Yellow Pages
	Demers David J	Pacific Bell Yellow Pages
1960	Bussard WD OV 6 a	Luskeys Brothers & Co., Publishers
1955	Leonard L H Mrs	Luskeys Brothers & Co., Publishers

6338 NEVA PL

Year	Uses	Source
1960	Barnett WR V 3 a	Luskeys Brothers & Co., Publishers
1955	Frankel Nathan V 3 a	Luskeys Brothers & Co., Publishers

6340 NEVA PL

Year	Uses	Source
1960	Martin FD V 3 a	Luskeys Brothers & Co., Publishers
1955	Schwartz H A	Luskeys Brothers & Co., Publishers

6341 NEVA PL

Year	Uses	Source
1996	Jackson Fount R	Pacific Bell
1981	Jackson Fount R	Pacific Telephone
1977	Williams Philip D	Pacific Telephone
1966	6345 Pendergrass Errol W Rubye 6345 Neva Pl Riv	Luskey Brothers & Company Inc.
	Irvine Milton H Ethel 6341 Nova Pl Riv	Luskey Brothers & Company Inc.
1960	Irvine Milton CV 4 a	Luskeys Brothers & Co., Publishers
1955	Irvine M H V 4 a	Luskeys Brothers & Co., Publishers

FINDINGS

6345 NEVA PL

Year	Uses	Source
2002	Weinfurtner Richard L	SBC PACIFIC BELL
2001	WEINFURTNERRi	Haines & Company, Inc.
1960	Gardner JW CV 4 a	Luskeys Brothers & Co., Publishers
1955	Vacant	Luskeys Brothers & Co., Publishers

6346 NEVA PL

Year	Uses	Source
2001	GALLIENJohn	Haines & Company, Inc.
1960	Murphy PL OV 6 a	Luskeys Brothers & Co., Publishers
1955	Copoulas G E	Luskeys Brothers & Co., Publishers

6347 NEVA PL

Year	Uses	Source
2001	HARDWm R	Haines & Company, Inc.
1960	Hard WR V 4 a	Luskeys Brothers & Co., Publishers
1955	Hard W R pntg contr CV 4 a	Luskeys Brothers & Co., Publishers

6348 NEVA PL

Year	Uses	Source
1960	Kirkland MR	Luskeys Brothers & Co., Publishers
1955	Starick J J	Luskeys Brothers & Co., Publishers

6352 NEVA PL

Year	Uses	Source
2001	GALUENJohn	Haines & Company, Inc.
1996	Smedley B	Pacific Bell
1960	No return	Luskeys Brothers & Co., Publishers
1955	No return	Luskeys Brothers & Co., Publishers

6354 NEVA PL

Year	Uses	Source
2001	TARANTI	Haines & Company, Inc.
1966	Leader Frances 6354 Neva Pl Riv	Luskey Brothers & Company Inc.
1960	Miller GD C OV 3 a	Luskeys Brothers & Co., Publishers
1955	Harman D R	Luskeys Brothers & Co., Publishers

6358 NEVA PL

Year	Uses	Source
2007	WHOLESALECABINETDOORS	Cole Information Services

FINDINGS

Year	Uses	Source
2002	Mc Curdy Jesse D	SBC PACIFIC BELL
2001	MCCURDYJesse D	Haines & Company, Inc.
	LOWRY Helen	Haines & Company, Inc.
1996	McCurdy Jesse D	Pacific Bell
1966	Miller Jos B Linda 6358 Neva Pl Riv	Luskey Brothers & Company Inc.
	Turner Lotie 0 Mrs 6358 Neva Pl Riv	Luskey Brothers & Company Inc.
1960	Freeman MD Mrs OV 6 a 4040j	Luskeys Brothers & Co., Publishers

6360 NEVA PL

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1966	Da Costa Carlos A Patricia 6360 Neva Pl Riv	Luskey Brothers & Company Inc.
1960	Honaker WE V 6 a	Luskeys Brothers & Co., Publishers
1955	Jennings G E OV 3 a	Luskeys Brothers & Co., Publishers

6366 NEVA PL

Year	Uses	Source
2001	PAULAndrew	Haines & Company, Inc.
1986	Bronkhorst Joseph & Johanna	Pacific Bell Yellow Pages
1966	Hay Wm 0 Josephine 6366 Neva Pl Riv	Luskey Brothers & Company Inc.

6368 NEVA PL

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1981	Brizendine C R CMSgt US AF Ret	Pacific Telephone
1966	Sandusky Gertrude 6368 Neva Pl Riv	Luskey Brothers & Company Inc.

SUNNYSIDE DR

3425 SUNNYSIDE DR

Year	Uses	Source
2001	DUNCANBl Bi	Haines & Company, Inc.
1986	Duncan Bill J	Pacific Bell Yellow Pages
1966	No Return	Luskey Brothers & Company Inc.
	Min 5 Attempts Made	Luskey Brothers & Company Inc.
1960	Travis BH Mrs DV 4 a	Luskeys Brothers & Co., Publishers
1955	Nolan K P 0 V 4 a	Luskeys Brothers & Co., Publishers

FINDINGS

3429 SUNNYSIDE DR

Year	Uses	Source
2001	SLEVOSSEar	Haines & Company, Inc.
1981	Blandin H A	Pacific Telephone
1977	Small Terry	Pacific Telephone
1966	Friedman Clarence Alva 3429 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Kiug RC DV 6 a	Luskeys Brothers & Co., Publishers
1955	Rundquist C F OV 6 a	Luskeys Brothers & Co., Publishers

3433 SUNNYSIDE DR

Year	Uses	Source
2002	Mc Donald Neka	SBC PACIFIC BELL
2001	SMCDONALDJohn L a M	Haines & Company, Inc.
1996	McDonald John L Maj	Pacific Bell
1986	Mc Donald John L Maj	Pacific Bell Yellow Pages
1981	Mc Donald John L Maj	Pacific Telephone
1977	Mc Donald John L Maj	Pacific Telephone
1966	Mc Donald John L Neka 3433 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Mc Donald JL DV 4 a	Luskeys Brothers & Co., Publishers
1955	Mc Donald J L OV 4 a	Luskeys Brothers & Co., Publishers

3437 SUNNYSIDE DR

Year	Uses	Source
2001	KLOTZ Esther	Haines & Company, Inc.
1981	Karr Vicki	Pacific Telephone
1977	Leach R R	Pacific Telephone
1966	Leach Merle J Rosalie 3437 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Mills Mutual Ins DV 4 a	Luskeys Brothers & Co., Publishers

3438 SUNNYSIDE DR

Year	Uses	Source
2001	RUMBARGERLesn Ot	Haines & Company, Inc.
1986	Erwin Gregor R	Pacific Bell Yellow Pages
1981	Phil Ips Mike	Pacific Telephone
1960	Rieber RH OV 6 a	Luskeys Brothers & Co., Publishers
1955	R eber R H V 6 a	Luskeys Brothers & Co., Publishers

FINDINGS

3441 SUNNYSIDE DR

Year	Uses	Source
2007	ROCK BOTTOM TOWING INC	Cole Information Services
2001	DEBLASISAnthony	Haines & Company, Inc.
1986	Francis D	Pacific Bell Yellow Pages
1981	Chasey Bryan D	Pacific Telephone
1977	Gunther Vern	Pacific Telephone
1966	Johnson Gunnar Mary 3441 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Johnson Gunnar DV 4 a	Luskeys Brothers & Co., Publishers
1955	Johnson Gunnar CV 4 a	Luskeys Brothers & Co., Publishers

3444 SUNNYSIDE DR

Year	Uses	Source
2001	ELLSWORTHC	Haines & Company, Inc.
1986	Doolittle Chuch & Courtney	Pacific Bell Yellow Pages
	Doolittle Chas C	Pacific Bell Yellow Pages
1981	Doolittle Chas C	Pacific Telephone
1977	Doolittle Chas C	Pacific Telephone
1966	Pritchard Beverly A Mrs 3444 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Stringfeilow JB Jr OV 6 a	Luskeys Brothers & Co., Publishers
1955	Stringfellow J B OV 6 a	Luskeys Brothers & Co., Publishers

3445 SUNNYSIDE DR

Year	Uses	Source
2001	LYNCH Maly	Haines & Company, Inc.
1966	Lynch Mary Mrs 3445 Sunnyside Dr Riy	Luskey Brothers & Company Inc.
1960	Richards FO Mrs DV 6 a	Luskeys Brothers & Co., Publishers
1955	Lynch P A V 4 a	Luskeys Brothers & Co., Publishers

3447 SUNNYSIDE DR

Year	Uses	Source
1955	Wills R W V 4 a	Luskeys Brothers & Co., Publishers

3448 SUNNYSIDE DR

Year	Uses	Source
2001	OBOLANIS Christine	Haines & Company, Inc.
	SMORRISONMLLcdr	Haines & Company, Inc.
1977	Pryor Richard	Pacific Telephone
1960	Quinn EP D OV 6 a	Luskeys Brothers & Co., Publishers

Year	Uses	Source
1955	Mc Cormick R R V 6 a	Luskeys Brothers & Co., Publishers

3449 SUNNYSIDE DR

Year	Uses	Source
2002	Morrison Marvin L LCDR	SBC PACIFIC BELL
1996	Morrison Marvin L LCDR	Pacific Bell
1986	Morrison Marvin L LCdr US N R Ret	Pacific Bell Yellow Pages
1981	Morrison Marvin L LCdr US N R Ret	Pacific Telephone
1977	Morrison Marvin L LCdr US N R Ret	Pacific Telephone
1966	Morrison Marvin L Lavonne 3449 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Morrison ML IV 4 a	Luskeys Brothers & Co., Publishers
1955	Morrison M L OV 4 a	Luskeys Brothers & Co., Publishers

3452 SUNNYSIDE DR

Year	Uses	Source
2002	Sontay Damaso R	SBC PACIFIC BELL
2001	OSOMTAYOamaso R	Haines & Company, Inc.
1981	Harris Carl	Pacific Telephone
1966	Harris Carl W Doris 3452 Sunnyside Dr Rio	Luskey Brothers & Company Inc.
1960	Harris CW D V 3 a	Luskeys Brothers & Co., Publishers
1955	Harris C W CV 3 a	Luskeys Brothers & Co., Publishers

3453 SUNNYSIDE DR

Year	Uses	Source
2002	Flores Rueben R	SBC PACIFIC BELL
2001	PATTONCyn Ohia	Haines & Company, Inc.
1966	Bassett Ina J Mrs 3453 Sunnyside Dr Rim	Luskey Brothers & Company Inc.
1960	Bassett AE OV 3 a	Luskeys Brothers & Co., Publishers
1955	Mac Klenz:e R E OV 6 a	Luskeys Brothers & Co., Publishers

3456 SUNNYSIDE DR

Year	Uses	Source
2001	ELLSWORTHC	Haines & Company, Inc.
	BOURBONNAISMeesoa	Haines & Company, Inc.
1986	Dickson R C	Pacific Bell Yellow Pages
1981	Dickson R C	Pacific Telephone
1977	Dickson R C	Pacific Telephone
1966	Dickson Robt C Melissa 3456 Sunnyside Dr Riv	Luskey Brothers & Company Inc.

Year	Uses	Source
1960	Dickson RC OV 6 a	Luskeys Brothers & Co., Publishers
1955	DIckson R C CV 6 a	Luskeys Brothers & Co., Publishers

3457 SUNNYSIDE DR

Year	Uses	Source
2001	SRODDAMMarilyn	Haines & Company, Inc.
1977	Tate Dwight	Pacific Telephone
	Tate John B Mrs	Pacific Telephone
1966	Tate John B Maxine 3457 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Clarke PH OV 4 a	Luskeys Brothers & Co., Publishers
1955	Clarke P H CV 4 a	Luskeys Brothers & Co., Publishers

3460 SUNNYSIDE DR

Year	Uses	Source
2001	FUHRMAN Carol	Haines & Company, Inc.
1966	Johnson Jas R Marjory 3460 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Johnson JR DV 6 a	Luskeys Brothers & Co., Publishers
1955	Sm th F 0 CV 4 a	Luskeys Brothers & Co., Publishers

3461 SUNNYSIDE DR

Year	Uses	Source
2001	VICKPae Ol	Haines & Company, Inc.
1966	Courtney Richd H Mary 3461 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Courtney RH DV 6 a	Luskeys Brothers & Co., Publishers
1955	Hoertsch L J V V 4 a	Luskeys Brothers & Co., Publishers

3464 SUNNYSIDE DR

Year	Uses	Source
1966	No Return	Luskey Brothers & Company Inc.
	Min 5 Attempts Made	Luskey Brothers & Company Inc.
1960	Smith DO	Luskeys Brothers & Co., Publishers
1955	Mc Corm:ck E M C V 6 a	Luskeys Brothers & Co., Publishers

3465 SUNNYSIDE DR

Year	Uses	Source
1977	Mc Quillan V E	Pacific Telephone
1966	Mc Quillan Verda E Mrs 3465 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Vacant	Luskeys Brothers & Co., Publishers

FINDINGS

Year	Uses	Source
1955	Mc Qu:llan W J V 3 a	Luskeys Brothers & Co., Publishers

3468 SUNNYSIDE DR

Year	Uses	Source
2007	BEYOND BEAUTY CONCEPTS	Cole Information Services
2002	Vick Herbert	SBC PACIFIC BELL
2001	V 11 CK Hirbe O	Haines & Company, Inc.
1996	Vick Herbert	Pacific Bell
1977	Wallerstedt Hulda M	Pacific Telephone
1966	Wallerstedt Hulda M Mrs 3468 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Wal Ierstedt EL DV 4 a	Luskeys Brothers & Co., Publishers
1955	Barnette G G V 6 a	Luskeys Brothers & Co., Publishers

3469 SUNNYSIDE DR

Year	Uses	Source
2001	SLORDD I Da	Haines & Company, Inc.
1966	Wieder Herman H Dora 3469 Sunnyside Dr Riv o	Luskey Brothers & Company Inc.
1960	Wieder HH OV 3 a	Luskeys Brothers & Co., Publishers
1955	Wieder H H V 3 a	Luskeys Brothers & Co., Publishers

3472 SUNNYSIDE DR

Year	Uses	Source
2001	OSOMMERVILLE Lilian	Haines & Company, Inc.
1996	Woulms Anthony J	Pacific Bell
1966	Whittenton Car IA Margaret 3472 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Sommerville KJ OV 6 a	Luskeys Brothers & Co., Publishers
1955	Sommerville J K CV 6 a	Luskeys Brothers & Co., Publishers

3473 SUNNYSIDE DR

Year	Uses	Source
2001	LIEBENB 6 RG Irene	Haines & Company, Inc.
1986	Kleinman John & Linda	Pacific Bell Yellow Pages
	Kleinman John Photography	Pacific Bell Yellow Pages
1966	No Return	Luskey Brothers & Company Inc.
	Min 5 Attempts Made	Luskey Brothers & Company Inc.
1960	Schwartz WG V 4 a	Luskeys Brothers & Co., Publishers
1955	Schwartz W G CV 4 a	Luskeys Brothers & Co., Publishers

FINDINGS

3476 SUNNYSIDE DR

Year	Uses	Source
2001	ROMEROVincent	Haines & Company, Inc.
1981	Coleman Doug	Pacific Telephone
	Coleman Marcia H	Pacific Telephone
1966	Attride Geo Y Elizabeth 3476 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Attride GY D V 3 a	Luskeys Brothers & Co., Publishers
1955	Attride G Y CV 3 a	Luskeys Brothers & Co., Publishers

3477 SUNNYSIDE DR

Year	Uses	Source
2001	SWATRING David	Haines & Company, Inc.
	BROWN Sean	Haines & Company, Inc.
1986	Butler Don W	Pacific Bell Yellow Pages
1981	Butter Don W	Pacific Telephone
1977	Butler Don W	Pacific Telephone
1966	Butler Don W Geraldine 3477 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Butier DW DV 6 a	Luskeys Brothers & Co., Publishers
1955	Bray C F V 3 a	Luskeys Brothers & Co., Publishers

3480 SUNNYSIDE DR

Year	Uses	Source
2001	SCASH Hazel	Haines & Company, Inc.
1986	Holt J A Mal Ret	Pacific Bell Yellow Pages
1977	Holt J A Maj Ret	Pacific Telephone
1966	Holt JA Faye 3480 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Holt JA DV 4 a	Luskeys Brothers & Co., Publishers
1955	Holt J A C OV 4 a	Luskeys Brothers & Co., Publishers

3481 SUNNYSIDE DR

Year	Uses	Source
2001	SSICHELJoan	Haines & Company, Inc.
1996	Sichel Edward	Pacific Bell
1986	Donham Bruce A	Pacific Bell Yellow Pages
1981	Greene Douglas M	Pacific Telephone
1977	Greene Douglas M	Pacific Telephone
1966	Greene Douglas M Sharene 3481 Sunnyside Or Riv	Luskey Brothers & Company Inc.
1960	Kinze OE DV 6 a	Luskeys Brothers & Co., Publishers

Year	Uses	Source
1955	Kunze 0 E V 6 a	Luskeys Brothers & Co., Publishers

3484 SUNNYSIDE DR

Year	Uses	Source
2001	SLENSCHRuth	Haines & Company, Inc.
	DUARTE Jula	Haines & Company, Inc.
	SNORMAN Linda	Haines & Company, Inc.
1986	Lensch Otto	Pacific Bell Yellow Pages
1981	Lensch Otto	Pacific Telephone
1977	Lensch Otto	Pacific Telephone
1966	Lensch Otta Ruth 3484 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Lensch Otto OV 6 a	Luskeys Brothers & Co., Publishers

3485 SUNNYSIDE DR

Year	Uses	Source
2001	MCOUILLAN Varda	Haines & Company, Inc.
1960	Heitkamp ER OV 6 a	Luskeys Brothers & Co., Publishers

3488 SUNNYSIDE DR

Year	Uses	Source
2001	ROBINSON Dean	Haines & Company, Inc.
1966	Knight Robt C Dolores 3488 Sunnyside Dr Riv	Luskey Brothers & Company Inc.

3492 SUNNYSIDE DR

Year	Uses	Source
2001	BOWMAN 0Dawn	Haines & Company, Inc.
1996	Erickson O H	Pacific Bell
1986	Rule Vaughn	Pacific Bell Yellow Pages
	Erlcksen E Neil	Pacific Bell Yellow Pages
	E RICKS IN TE RIORS	Pacific Bell Yellow Pages
1981	E RICKS IN TE RIORS	Pacific Telephone
	ERICKS INTERIORS	Pacific Telephone
1977	ERICKS INTERIORS	Pacific Telephone
	E RICKS IN TE RIORS	Pacific Telephone
	Asch G P	Pacific Telephone
1966	Laws ZN Mrs 3492 Sunnyside Dr Riv	Luskey Brothers & Company Inc.
1960	Laws ZN Mrs DV 4 a	Luskeys Brothers & Co., Publishers
1955	Laws Zelinn N V 4 a	Luskeys Brothers & Co., Publishers

FINDINGS

SUNNYSKJO DR

3480 SUNNYSKJO DR

Year	Uses	Source
1981	Holt S AMa JRet	Pacific Telephone

SUNNYSLOPE DR

3429 SUNNYSLOPE DR

Year	Uses	Source
1970	Williams Eva Mrs	Pacific Telephone
	Talley Ruth	Pacific Telephone

3433 SUNNYSLOPE DR

Year	Uses	Source
1970	Mc Donald John L Maj	Pacific Telephone

3437 SUNNYSLOPE DR

Year	Uses	Source
1970	Leach Merle J	Pacific Telephone

3438 SUNNYSLOPE DR

Year	Uses	Source
1970	Alexander Elizabeth A	Pacific Telephone

3441 SUNNYSLOPE DR

Year	Uses	Source
1970	Johnson Gunnar Lt Col Ret	Pacific Telephone

3448 SUNNYSLOPE DR

Year	Uses	Source
1970	Aagaard Leoris	Pacific Telephone

3449 SUNNYSLOPE DR

Year	Uses	Source
1970	Morrison Marvin L LCdr USNR Ret	Pacific Telephone

3452 SUNNYSLOPE DR

Year	Uses	Source
1970	Harris Carl W	Pacific Telephone

FINDINGS

3456 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Dickson R C	Pacific Telephone

3457 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Tate John B Mrs	Pacific Telephone

3460 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Peterson Wm L	Pacific Telephone

3461 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Courtney Richard H	Pacific Telephone

3465 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Mc Quillan Verda E Mrs	Pacific Telephone

3468 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Wallerstedt Hulda M	Pacific Telephone

3469 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Wieder H H	Pacific Telephone

3472 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Sommerville Kenneth J T	Pacific Telephone

3473 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Bulger J W Ted	Pacific Telephone

3476 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Attride Geo Y Mrs	Pacific Telephone

3477 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Butler Don W	Pacific Telephone

FINDINGS

3480 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Holt J A Maj Ret	Pacific Telephone

3481 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Greene Douglas M	Pacific Telephone

3484 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Lensch Otto	Pacific Telephone

3488 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Moran L E	Pacific Telephone

3492 SUNNYSLOPE DR

Year	*Uses*	*Source*
1970	Laws Z N	Pacific Telephone

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
3416 Central Avenue	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
3300 CENTRAL AVE	2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3300 Central Ave	2012, 2007, 2001, 1993, 1970, 1967, 1961, 1956, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3380 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3386 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3391 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3392 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3396 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3399 Central Ave	2012, 2007, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3399 CENTRAL AVE	2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3400 CENTRAL AVE	2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3400 Central Ave	2012, 2007, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3402 MONO DR	2012, 2007, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3410 MONO DR	2012, 2007, 2001, 1993, 1990, 1970, 1967, 1961, 1960, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3424 MONO DR	2012, 2007, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3425 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
3429 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1960, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3429 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3429 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3432 MONO DR	2012, 2007, 2002, 1993, 1990, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3433 SUNNYSIDE DR	2012, 2007, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3433 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3436 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3437 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1970, 1967, 1961, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3437 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3438 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3438 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3439 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3440 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1951, 1946, 1941, 1931, 1927, 1925, 1924, 1921
3440 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3441 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1927, 1925, 1924, 1921
3441 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3441 SUNNYSIDE DR	2012, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3441 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3442 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3443 CENTRAL AVE	2012, 2007, 2002, 1993, 1990, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3443 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
3444 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3444 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3444 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3445 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3447 CENTRAL AVE	2012, 2007, 2002, 1993, 1990, 1986, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3447 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3447 SUNNYSIDE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3448 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3448 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3448 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3448 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3449 SUNNYSIDE DR	2012, 2007, 2001, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3449 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3451 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1981, 1977, 1970, 1967, 1961, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3451 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1960, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3452 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1970, 1967, 1961, 1960, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3452 LAURA LN	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3452 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3452 SUNNYSIDE DR	2012, 2007, 1996, 1993, 1990, 1986, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3452 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3453 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3453 SUNNYSIDE DR	2012, 2007, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
3454 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3455 CENTRAL AVE	2012, 2007, 2002, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3455 MONO DR	2012, 2007, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3456 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3456 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3456 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3457 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3457 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3457 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3458 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3458 LAURA LN	2012, 2007, 2002, 1996, 1993, 1990, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3459 CENTRAL AVE	2012, 2007, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3459 LAURA LN	2012, 2007, 2002, 1996, 1993, 1990, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3459 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3460 LAURA LN	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3460 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3460 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3461 CENTRAL AVE	2012, 2007, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3461 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3461 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3463 CENTRAL AVE	2012, 2007, 2002, 1993, 1990, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3463 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
3464 CENTRAL AVE	2012, 2007, 2002, 1996, 1990, 1986, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3464 LAURA LN	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3464 SUNNYSIDE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3465 CENTRAL AVE	2012, 2007, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3465 LAURA LN	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3465 SUNNYSIDE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3465 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3467 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3467 MONO DR	2012, 2007, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3468 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3468 LAURA LN	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3468 MONO DR	2012, 2007, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3468 SUNNYSIDE DR	2012, 2007, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3468 SUNNYSIDE DR	2012, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3468 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3469 CENTRAL AVE	2012, 2007, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3469 LAURA LN	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3469 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3469 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3471 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3471 LAURA LN	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3471 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
3472 MONO DR	2012, 2007, 2002, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3472 SUNNYSIDE DR	2012, 2007, 2002, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3472 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3473 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3473 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3473 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3474 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3474 LAURA LN	2012, 2007, 1996, 1993, 1990, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3475 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3475 LAURA LN	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3476 MONO DR	2012, 2007, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3476 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3476 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3477 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3477 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3477 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3478 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3478 LAURA LN	2012, 2007, 2002, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3479 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3479 LAURA LN	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3480 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3480 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
3480 SUNNYSKJO DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3480 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3481 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3481 SUNNYSIDE DR	2012, 2007, 2002, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3481 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3482 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1960, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3483 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3484 CENTRAL AVE	2012, 2007, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3484 CENTRAL AVE	2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3484 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1970, 1967, 1961, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3484 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3485 CENTRAL AVE	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3485 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3486 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3487 CENTRAL AVE	2012, 2007, 1993, 1990, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3487 CENTRAL AVE	2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3487 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3488 SUNNYSIDE DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3488 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3489 CENTRAL AVE	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
3491 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3492 SUNNYSIDE DR	2012, 2007, 2002, 1993, 1990, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3492 SUNNYSLOPE DR	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3495 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3499 MONO DR	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3499 MONO DR	2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6306 NEVA PL	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6316 NEVA PL	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6318 NEVA PL	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6319 NEVA PL	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6321 NEVA PL	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6324 NEVA PL	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6326 NEVA PL	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6332 NEVA PL	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6334 NEVA PL	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6338 NEVA PL	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6340 NEVA PL	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6341 NEVA PL	2012, 2007, 2002, 2001, 1993, 1990, 1986, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6345 NEVA PL	2012, 2007, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6346 NEVA PL	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6347 NEVA PL	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6348 NEVA PL	2012, 2007, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
6352 NEVA PL	2012, 2007, 2002, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6354 NEVA PL	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6358 NEVA PL	2012, 2007, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6358 NEVA PL	2012, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6360 NEVA PL	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1956, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6366 NEVA PL	2012, 2007, 2002, 1996, 1993, 1990, 1981, 1977, 1970, 1967, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6368 NEVA PL	2012, 2007, 2002, 1996, 1993, 1990, 1986, 1977, 1970, 1967, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

Appendix E

E-1 Hydrology and Hydraulic Basis of Design

E-2 Water Quality Management Plan

E-1 Hydrology and Hydraulic Basis of Design

HYDROLOGY AND HYDRAULIC BASIS OF DESIGN

For

Magnolia-Plaza Reliability Project

PREPARED FOR:

City of Riverside
Public Utilities Department
3750 University Avenue, 3rd Floor
Riverside, CA 92501

PREPARED BY:

RBF Consulting
A company of the Michael Baker Corporation
9755 Clairemont Mesa Blvd
San Diego, CA 92124
858.614.5000

JN 134974
September 2013

Richard S. Tomlinson, Jr. RCE 59276
Pedro Arias, Civil Associate

Prepared by:

RBF CONSULTING

9755 Clairemont Mesa Boulevard
San Diego, California 92124-1324
T: 858.614.5000 | F: 858.614.5001

Table of Contents

List of Figures

List of Tables

Section 1 Project Description and Scope

1.1. Project Location

The project site is Phase 1 of the Magnolia-Plaza Reliability Project (MPRP). The site is an expansion to the existing Plaza Substation located at 3716 Elizabeth Street, approximately 0.8 miles west of California State Route 91 between Elizabeth Street and Magnolia Avenue in the City of Riverside, California, within the Magnolia Center Community. Please refer to **Figure 1** below for a Vicinity Map.

Figure 1: Vicinity Map

Project Site Address:	3716 Elizabeth Street Riverside, CA 92506
Planning Area/Community Name/ Development Name:	Magnolia-Plaza Reliability Project
APN Number(s):	225-052-10, 225-052-08, 225-052-21, 225-052-19, 225-052-05, 225-052-04
Project Location:	Latitude: N 33° 57' 27.5004" Longitude: W 117° 23' 32.9814”
Project Watershed:	Middle Santa Ana River, HA 801.20
Sub-watershed:	Riverside HSA 801.27

1.2. Scope of Report

This report does not discuss required water quality measures to be implemented on a permanent basis, nor does it address construction storm water issues. Post construction storm water issue discussions can be found under separate cover in the project “Water Quality Management Plan”.

1.3. Project Site Information

1.3.1 Project Site

The project site is an expansion to the existing Plaza Substation. The proposed site is currently undeveloped. Approximately 23,668 square feet of new property, adjacent to the west side of the Plaza Substation, will be acquired for adding new transformer and switchgear. The Plaza Substation is an existing 69 kV substation fed by two 69 kV lines that deliver power to the substation. Plaza has one 69kV/12kV transformer and three 69kV/12kV substation transformers. Each transformer is currently connected to its own switchgear with 4 kV or 12 kV circuit breakers that deliver power out of the substation to several distribution circuits providing service throughout the city.

1.3.2 Site Topography

The project site is relatively flat, with a maximum elevation located west of the project site, at an elevation of approximately 846 feet MSL. The lowest part of the property is located southwest of the property with an elevation of approximately 837 feet. Flat terrain characterizes much of the project site and its surroundings with an average site slope of 0.8% across the site.

1.3.3 FEMA Information

The Federal Emergency Management Agency (FEMA) has mapped the flood plain of Santa Ana River, Lake Evans and Tequesquite Arroyo as a Special Flood Hazard Areas (SFHAs), Zone AE (FIRM Panel 06065C0710G). The site lies within un-shaded Zone X, which correlates with areas determined to be outside the 500-year floodplain. See **Figure 2: FEMA FIRMette**, below.

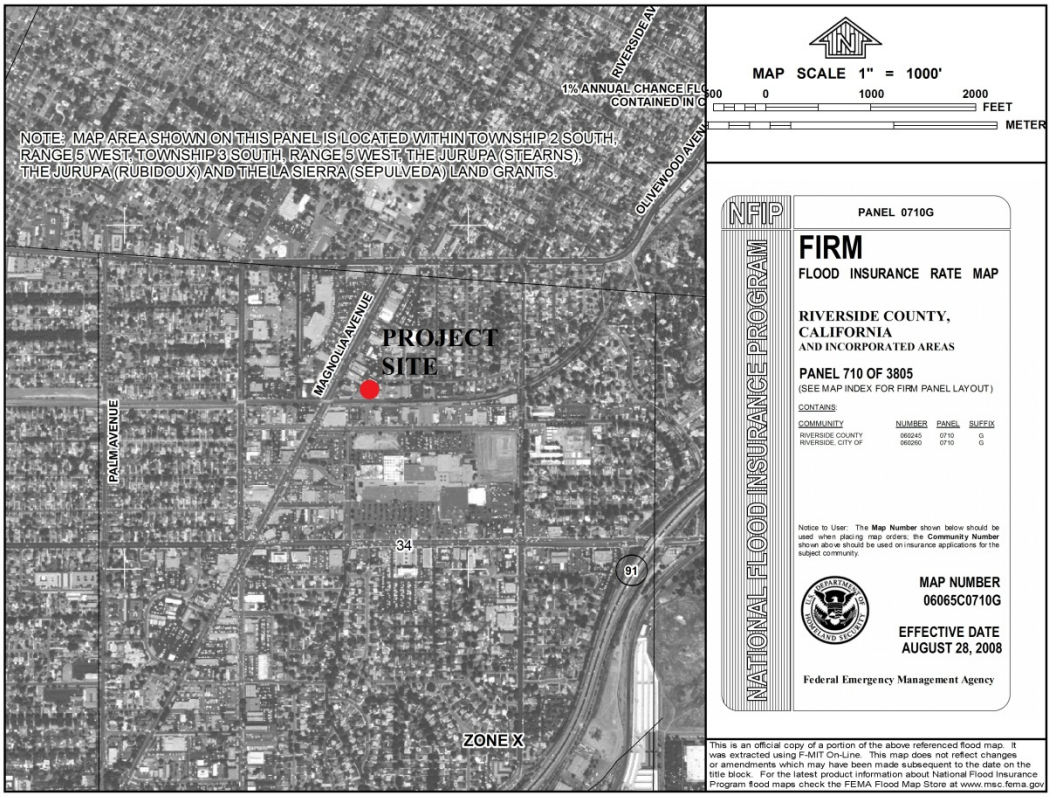


Figure 2: FEMA FIRMette

1.3.4 Existing Improvements

The project site is currently undeveloped. The site is bound by Elizabeth Street on the north, the Plaza Substation on the east, railroad tracks on the south and an empty lot west of the property. The site currently drains to a single point of connection, at the curb inlet located southwest of the site at Mangolia Avenue. In the existing condition, runoff from the site drains through the site as sheet flow.

1.3.5 Proposed Improvements

Phase 1 of the Magnolia-Plaza Reliability Project includes the addition of an arc-resistant switchgear building, transformers, breakers, a capacitor bank, control and power pits, getaways and power vaults, related bus work, as well as the relocation of the 69 kV Mt. View line. The existing control building will be reused.

The existing block wall and security fence around the perimeter of the existing Plaza Substation will be removed. A new 10-foot perimeter block wall will be installed around the perimeter of the existing and new substation property. The two existing gates will be replaced with a new gate, the east gate being motorized with keypad entry. In addition, a new motorized, rolling gate with a new driveway, sidewalk, and keypad entry will be added at the end of Elizabeth Street in order to access the new property. The front of the existing and expanded substation will be landscaped with new drought tolerant plants and trees. A new irrigation system with backflow prevention will be installed to accommodate the new landscaping along the front of the substation.

No formal improvements to the existing drainage patterns are proposed on site. The extension of the existing curb, gutter and sidewalk on Elizabeth Street will cause slightly different pre and post construction drainage patterns, but are consider negligible. The point of discharge from the site is the same in the existing and the proposed condition. Proposed improvements associated with the project will require minimal grading and will not have any impacts on the drainage. Onsite material will consist of pervious gravel material. The proposed development will not impose a drainage, grading or flooding hazard to itself and surrounding properties.

Section 2 Study Objectives

The specific objectives of this study are as follows:

To provide hydrologic analysis of the project site for the 100-year, 6-hour storm event under existing and proposed conditions,

To provide a hydraulic analysis of the project to ensure that the correct sizes of pipes and inlets have been chosen,

And to ensure that no additional runoff or downstream impacts occur due to this project.

Section 3 Methodology

3.1. Hydrology

Hydrologic analysis has been completed using the Rational Method (Q = CIA). Whereas,

Q = rate of flow in cubic feet per second

C = Coefficient of runoff,

I = intensity of rainfall based on the time of concentration and the 6-hour, 100-year precipitation

A=Area of the basin.

The runoff coefficient was determined using the runoff coefficient curves provided in the Riverside County Flood Control and Water Conservation District – Hydrology Manual and based on soil type B.

Proposed improvements will change the runoff coefficient by 0.002 because only minor amounts of pervious surfaces are being replaced with impervious surfaces. In addition, the relative flow path in the existing and proposed condition has changed slightly, and therefore the time of concentration has increase by 0.2 minutes but is considered negligible.

3.2. Hydraulics

Proposed improvements include extending the curb, gutter and sidewalk on Elizabeth Street. Runoff will ultimately be discharged from the project site at the same location as the existing condition, to the existing curb inlet at Magnolia Avenue.

Proposed improvements will not increase the total peak flow runoff, as compared to existing conditions.

3.3. Storm Water Pollution Control

Erosion of the site during and after construction is a very serious concern. For this project, a Storm Water Pollution Control Plan will be prepared to address storm water pollution during construction, and a Water Quality Management Plan has been prepared to address post construction storm water quality. These documents should be referenced for both construction and post construction storm water pollution prevention.

Section 4 Results and Conclusions

4.1. Results

Table 1 – Existing Condition, summarizes the existing hydrologic properties of the project site.

Table 2 – Proposed Condition, summarizes the proposed condition hydrology of the site. **Table 3 – Comparison of Existing to Proposed Flows**, compares existing flows to the proposed flows.

Table 1 – Existing Condition

Sub Basin No.	Runoff Coefficient	Basin Intensity	Basin Area (acres)	Runoff (cfs)
Basin 1 10-year	0.57	1.30	1.32	0.98
Basin 1 100-year	0.57	1.85	1.32	1.39

Table 2 – Proposed Condition

Sub Basin No.	Runoff Coefficient	Basin Intensity	Basin Area (acres)	Runoff (cfs)
Basin 1 10-year	0.57	1.30	1.32	0.98
Basin 1 100-year	0.57	1.85	1.32	1.39

Table 3 – Comparison of Existing to Proposed Flows

Sub Basin No.	Existing Condition (cfs)	Proposed Condition (cfs)	Difference
Basin 1 10-year	0.98	0.98	0.00
Basin 1 100-year	1.39	1.39	0.00

Results from the hydraulic analyses indicate there will be no increase in the overall runoff with the proposed improvements. The proposed off-site improvements of curb, gutter and sidewalk will increase the total peak flow runoff. Refer to the Water Quality Management Plan for a discussion of the low impact design elements which are incorporated into the proposed site layout.

The ultimate storm water discharge location remains the same as the existing condition. Improvements to the existing storm water infrastructure are not needed based on the proposed improvements as there shall be no increase in the proposed mitigated storm water flow rate.

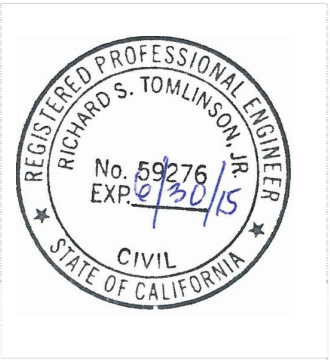
4.2. Conclusions

As indicated in the Table of Hydrologic Results, the proposed improvements will not increase the total 100-year, 6-hour peak flow rate.

There is not a significant concern for erosion at the site. Potential for erosion for the proposed condition shall be minimized by following items listed in the Erosion Control Plan (part of the Rough Grading Plans). Runoff shall flow over relatively flat areas where scour is not a concern.

Section 5 Certification

This Hydrology and Hydraulics report has been prepared under the direction of the following Registered Civil Engineer. The Registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based. The plans and specifications in this Hydrology and Hydraulics report are not for construction purposes; the contractor shall refer to final approved construction documents for plans and specifications.



Richard S Tomlinson Jr

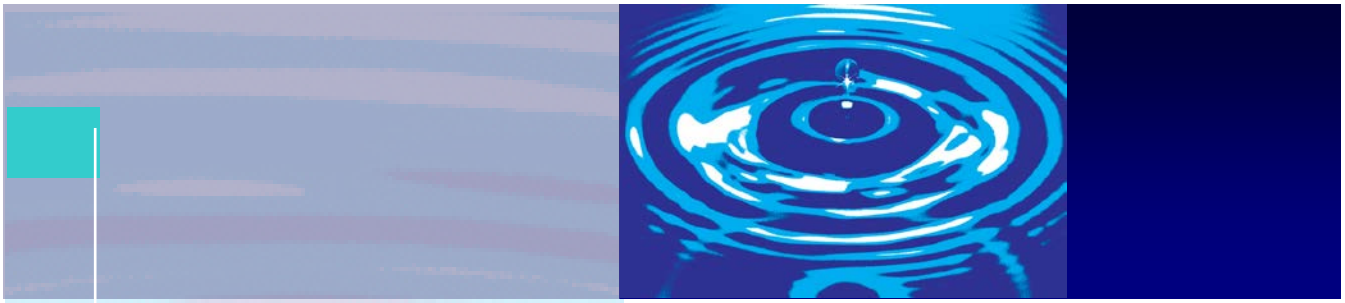
Richard S. Tomlinson, Jr. RCE 59276

September 13, 2013

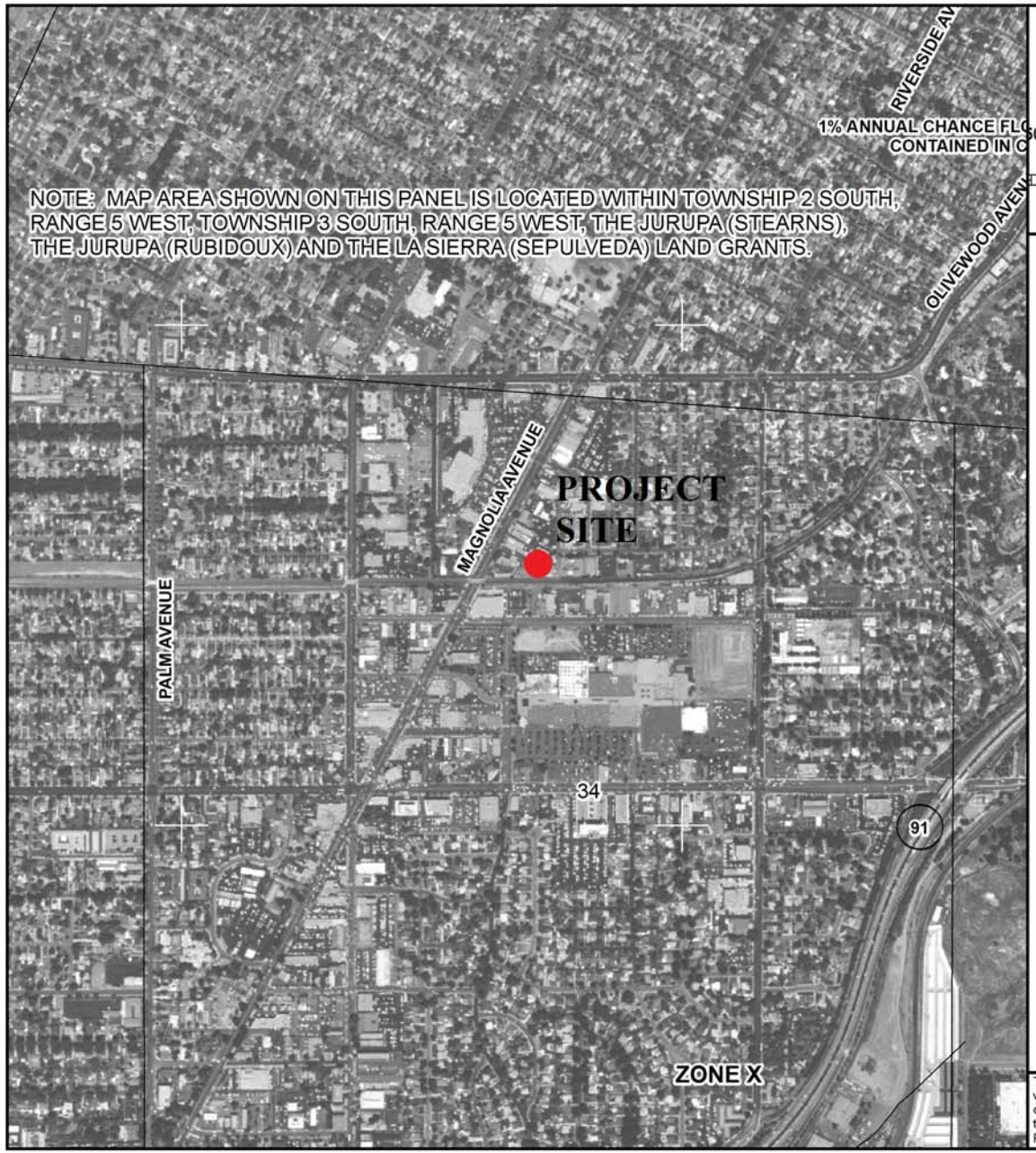
September 12, 2013

Section 6 References

Riverside County Flood Control and Water Conservation District, 1978. Hydrology Manual.



Appendix A
Rainfall Isopluvials & FEMA Information



MAP SCALE 1" = 1000'

500 0 1000 2000

FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0710G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 710 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

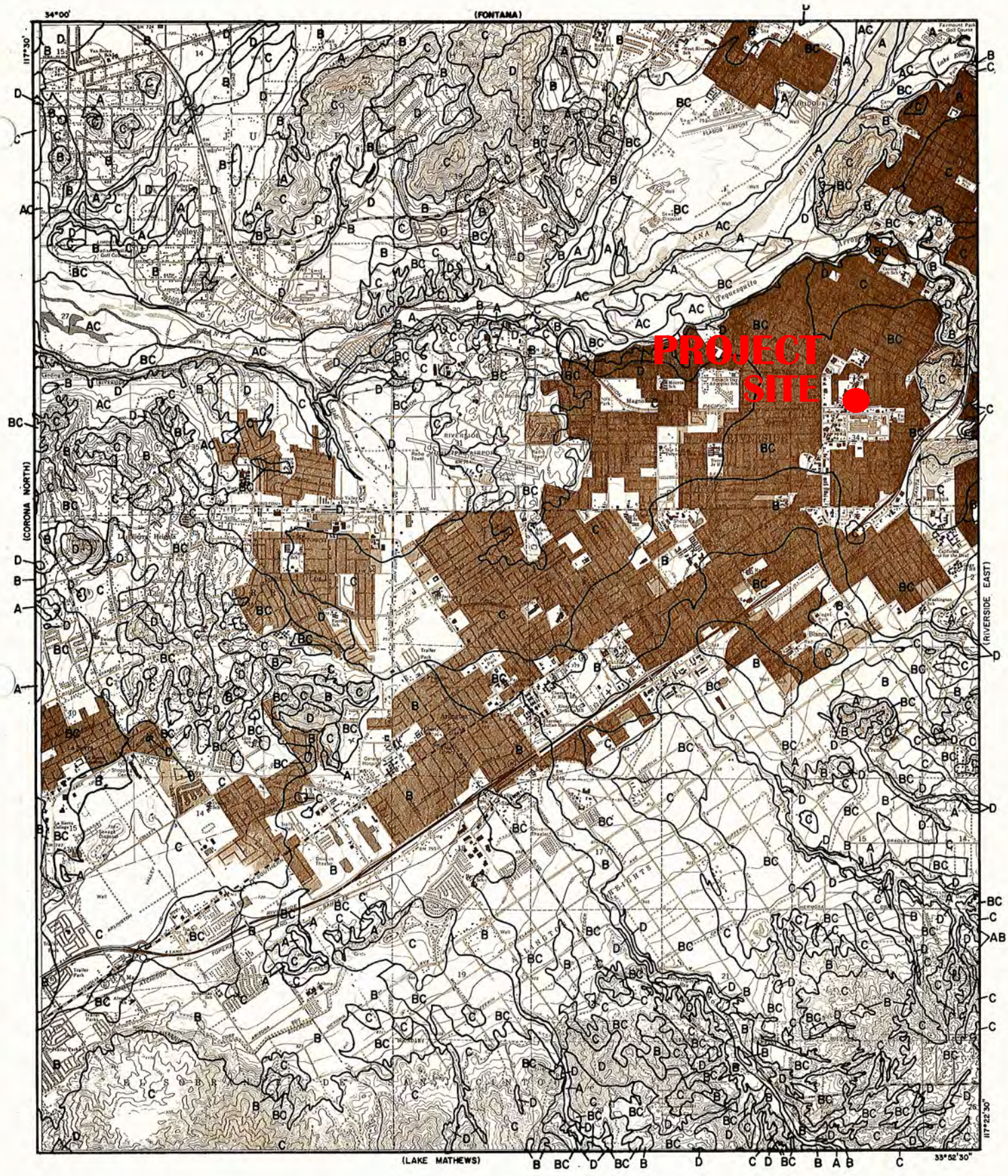
COMMUNITY	NUMBER	PANEL	SUFFIX
RIVERSIDE COUNTY	060245	0710	G
RIVERSIDE, CITY OF	060260	0710	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C0710G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency



LEGEND

—— SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC&WCD

HYDROLOGY MANUAL

N

0 FEET 5000

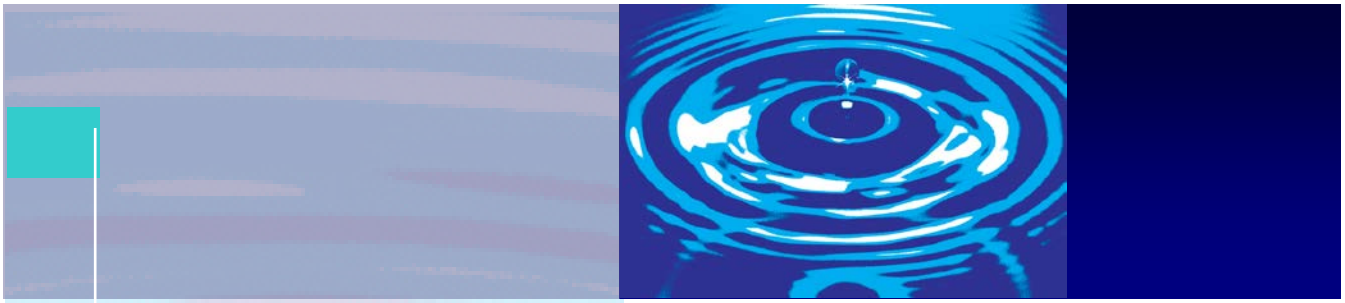
HYDROLOGIC SOILS GROUP MAP FOR RIVERSIDE—WEST

PLATE C-1.15

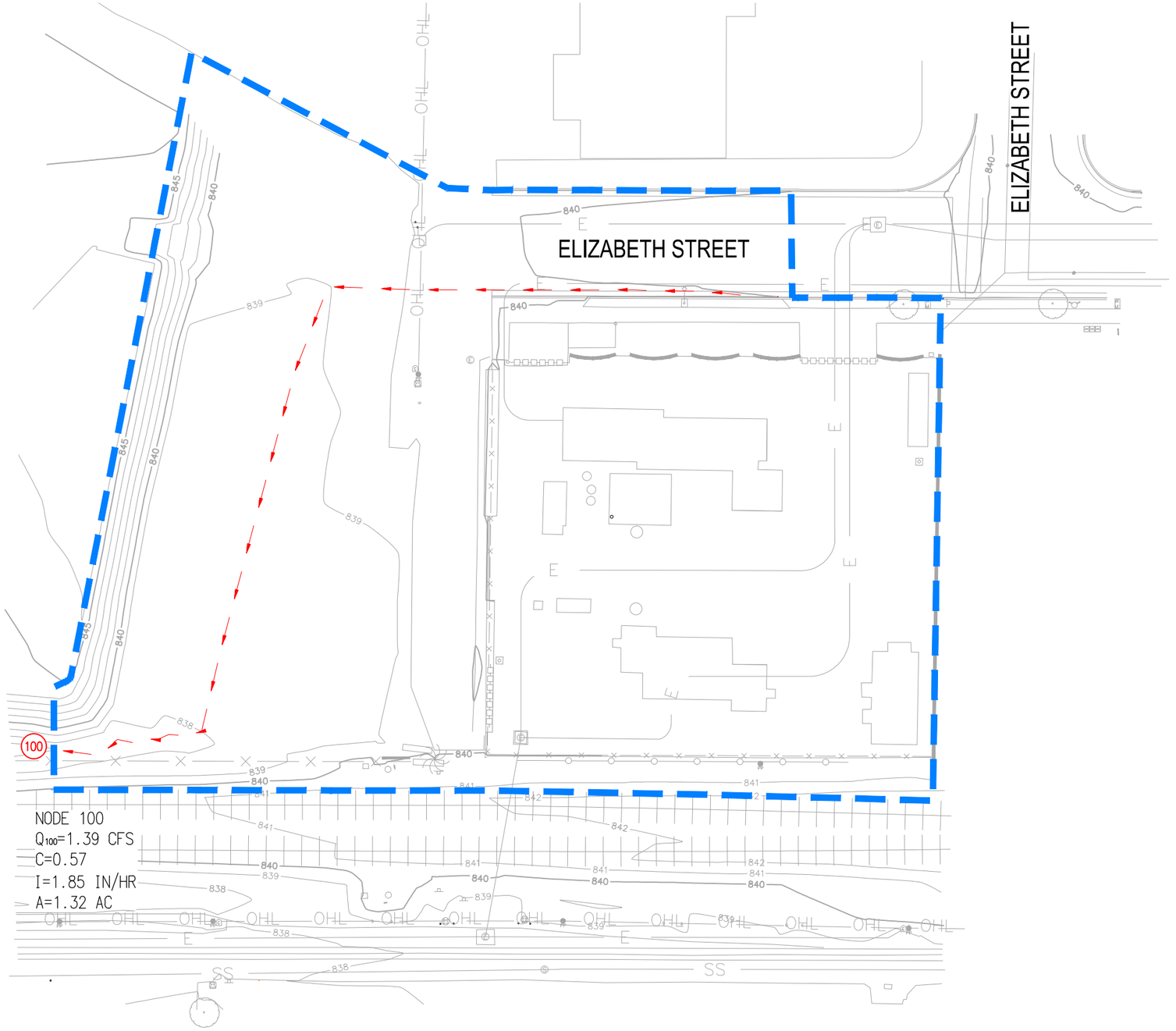
RAINFALL INTENSITY—INCHES PER HOUR

RIVERSIDE			RIVERSIDE (FOOTHILL AREAS)			RUBIDOUX			SAN JACINTO			SUN CITY		
DURATION MINUTES	FREQUENCY		DURATION MINUTES	FREQUENCY		DURATION MINUTES	FREQUENCY		DURATION MINUTES	FREQUENCY		DURATION MINUTES	FREQUENCY	
	10 YEAR	100 YEAR		10 YEAR	100 YEAR		10 YEAR	100 YEAR		10 YEAR	100 YEAR		10 YEAR	100 YEAR
5	2.75	3.92	5	3.14	4.71	5	3.18	4.71	5	2.81	4.16	5	3.25	4.85
6	2.48	3.55	6	2.84	4.26	6	2.87	4.26	6	2.56	3.79	6	2.95	4.40
7	2.28	3.26	7	2.61	3.91	7	2.64	3.91	7	2.37	3.51	7	2.72	4.06
8	2.12	3.03	8	2.42	3.63	8	2.45	3.63	8	2.22	3.29	8	2.53	3.78
9	1.99	2.84	9	2.27	3.41	9	2.30	3.41	9	2.09	3.10	9	2.38	3.55
10	1.88	2.68	10	2.14	3.21	10	2.17	3.21	10	1.98	2.94	10	2.25	3.36
11	1.78	2.54	11	2.03	3.05	11	2.06	3.05	11	1.89	2.80	11	2.14	3.19
12	1.70	2.42	12	1.94	2.91	12	1.96	2.91	12	1.81	2.68	12	2.04	3.05
13	1.62	2.32	13	1.86	2.78	13	1.88	2.78	13	1.74	2.58	13	1.96	2.92
14	1.56	2.23	14	1.78	2.67	14	1.80	2.67	14	1.68	2.48	14	1.88	2.81
15	1.50	2.14	15	1.71	2.57	15	1.74	2.57	15	1.62	2.40	15	1.81	2.71
16	1.45	2.07	16	1.66	2.48	16	1.68	2.48	16	1.57	2.32	16	1.75	2.62
17	1.40	2.00	17	1.60	2.40	17	1.62	2.40	17	1.52	2.25	17	1.70	2.54
18	1.36	1.94	18	1.55	2.33	18	1.57	2.33	18	1.48	2.19	18	1.65	2.46
19	1.32	1.88	19	1.51	2.26	19	1.52	2.26	19	1.44	2.13	19	1.60	2.39
20	1.28	1.83	20	1.46	2.20	20	1.48	2.20	20	1.40	2.08	20	1.56	2.33
22	1.22	1.74	22	1.39	2.08	22	1.41	2.08	22	1.34	1.98	22	1.48	2.21
24	1.16	1.66	24	1.32	1.99	24	1.34	1.99	24	1.28	1.90	24	1.41	2.11
26	1.11	1.58	26	1.27	1.90	26	1.28	1.90	26	1.23	1.82	26	1.36	2.03
28	1.06	1.52	28	1.22	1.82	28	1.23	1.82	28	1.19	1.76	28	1.30	1.95
30	1.02	1.46	30	1.17	1.76	30	1.19	1.76	30	1.15	1.70	30	1.26	1.88
32	.99	1.41	32	1.13	1.70	32	1.14	1.70	32	1.11	1.64	32	1.21	1.81
34	.96	1.37	34	1.09	1.64	34	1.11	1.64	34	1.08	1.59	34	1.18	1.76
36	.93	1.32	36	1.06	1.59	36	1.07	1.59	36	1.05	1.55	36	1.14	1.70
38	.90	1.29	38	1.03	1.54	38	1.04	1.54	38	1.02	1.51	38	1.11	1.66
40	.87	1.25	40	1.00	1.50	40	1.01	1.50	40	.99	1.47	40	1.08	1.61
45	.82	1.17	45	.94	1.41	45	.95	1.41	45	.94	1.39	45	1.01	1.51
50	.77	1.11	50	.88	1.33	50	.90	1.33	50	.89	1.31	50	.96	1.43
55	.73	1.05	55	.84	1.26	55	.85	1.26	55	.85	1.25	55	.91	1.36
60	.70	1.00	60	.80	1.20	60	.81	1.20	60	.81	1.20	60	.87	1.30
65	.67	.96	65	.77	1.15	65	.78	1.15	65	.78	1.15	65	.83	1.25
70	.64	.92	70	.73	1.10	70	.74	1.10	70	.75	1.11	70	.80	1.20
75	.62	.88	75	.71	1.06	75	.72	1.06	75	.72	1.07	75	.77	1.15
80	.60	.85	80	.68	1.02	80	.69	1.02	80	.70	1.04	80	.75	1.12
85	.58	.83	85	.66	.99	85	.67	.99	85	.68	1.01	85	.72	1.08
SLOPE = .550			SLOPE = .550			SLOPE = .550			SLOPE = .500			SLOPE = .530		

STANDARD
INTENSITY – DURATION
CURVES DATA



Appendix B
Existing Condition Hydrologic Work Map & Calculations

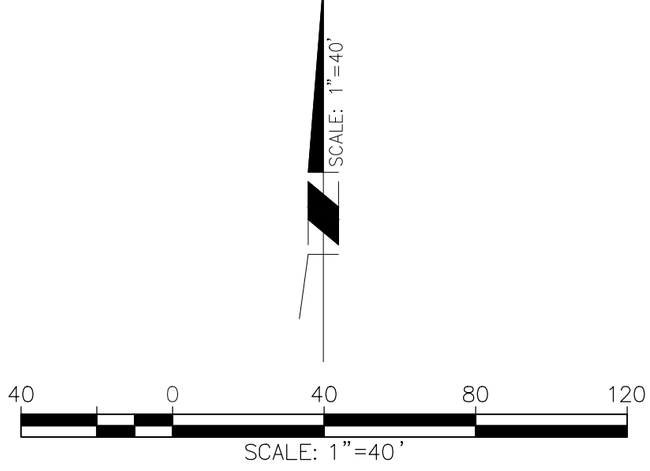


LEGEND

NODE (100)

DRAINAGE AREA

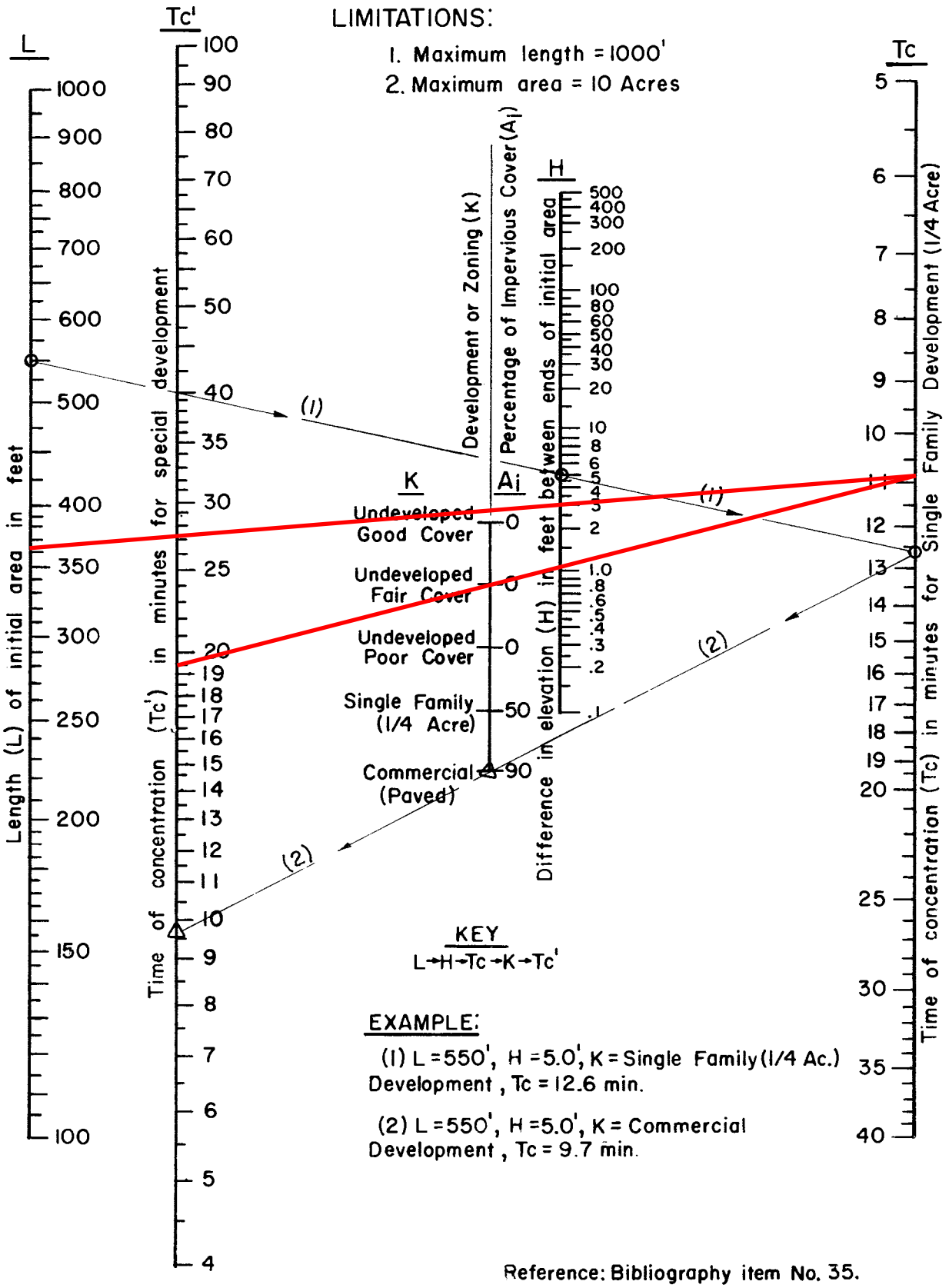
FLOW PATH



PLAZA T5 ADDITION PRE DEVELOPMENT HYDROLOGIC WORK MAP

RBF CONSULTING
PLANNING ■ DESIGN ■ CONSTRUCTION
9755 CLAIREMONT MESA BOULEVARD, SUITE 100
SAN DIEGO, CALIFORNIA 92124-1324
858.614.5000 ▪ FAX 858.614.5001 ▪ www.RBF.com

H:\PDATA\134974\CADD\LAND\EXHIBITS\PRE DEVELOPMENT.DWG ARIAS, PEDRO 7/23/2013 7:23 AM



Reference: Bibliography item No. 35.

RCFC & WCD
HYDROLOGY MANUAL

TIME OF CONCENTRATION FOR INITIAL SUBAREA

PLATE D-3

RAINFALL INTENSITY–INCHES PER HOUR

RIVERSIDE			RIVERSIDE (FOOTHILL AREAS)			RUBIDOUX			SAN JACINTO			SUN CITY		
DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR
5	2.75	3.92	5	3.14	4.71	5	3.18	4.71	5	2.81	4.16	5	3.25	4.85
6	2.48	3.55	6	2.84	4.26	6	2.87	4.26	6	2.56	3.79	6	2.95	4.40
7	2.28	3.26	7	2.61	3.91	7	2.64	3.91	7	2.37	3.51	7	2.72	4.06
8	2.12	3.03	8	2.42	3.63	8	2.45	3.63	8	2.22	3.29	8	2.53	3.78
9	1.99	2.84	9	2.27	3.41	9	2.30	3.41	9	2.09	3.10	9	2.38	3.55
10	1.88	2.68	10	2.14	3.21	10	2.17	3.21	10	1.98	2.94	10	2.25	3.36
11	1.78	2.54	11	2.03	3.05	11	2.06	3.05	11	1.89	2.80	11	2.14	3.19
12	1.70	2.42	12	1.94	2.91	12	1.96	2.91	12	1.81	2.68	12	2.04	3.05
13	1.62	2.32	13	1.86	2.78	13	1.88	2.78	13	1.74	2.58	13	1.96	2.92
14	1.56	2.23	14	1.78	2.67	14	1.80	2.67	14	1.68	2.48	14	1.88	2.81
15	1.50	2.14	15	1.71	2.57	15	1.74	2.57	15	1.62	2.40	15	1.81	2.71
16	1.45	2.07	16	1.66	2.48	16	1.68	2.48	16	1.57	2.32	16	1.75	2.62
17	1.40	2.00	17	1.60	2.40	17	1.62	2.40	17	1.52	2.25	17	1.70	2.54
18	1.36	1.94	18	1.55	2.33	18	1.57	2.33	18	1.48	2.19	18	1.65	2.46
19	1.32	1.88	19	1.51	2.26	19	1.52	2.26	19	1.44	2.13	19	1.60	2.39
20	1.28	1.83	20	1.46	2.20	20	1.48	2.20	20	1.40	2.08	20	1.56	2.33
22	1.22	1.74	22	1.39	2.08	22	1.41	2.08	22	1.34	1.98	22	1.48	2.21
24	1.16	1.66	24	1.32	1.99	24	1.34	1.99	24	1.28	1.90	24	1.41	2.11
26	1.11	1.58	26	1.27	1.90	26	1.28	1.90	26	1.23	1.82	26	1.36	2.03
28	1.06	1.52	28	1.22	1.82	28	1.23	1.82	28	1.19	1.76	28	1.30	1.95
30	1.02	1.46	30	1.17	1.76	30	1.19	1.76	30	1.15	1.70	30	1.26	1.88
32	.99	1.41	32	1.13	1.70	32	1.14	1.70	32	1.11	1.64	32	1.21	1.81
34	.96	1.37	34	1.09	1.64	34	1.11	1.64	34	1.08	1.59	34	1.18	1.76
36	.93	1.32	36	1.06	1.59	36	1.07	1.59	36	1.05	1.55	36	1.14	1.70
38	.90	1.29	38	1.03	1.54	38	1.04	1.54	38	1.02	1.51	38	1.11	1.66
40	.87	1.25	40	1.00	1.50	40	1.01	1.50	40	.99	1.47	40	1.08	1.61
45	.82	1.17	45	.94	1.41	45	.95	1.41	45	.94	1.39	45	1.01	1.51
50	.77	1.11	50	.88	1.33	50	.90	1.33	50	.89	1.31	50	.96	1.43
55	.73	1.05	55	.84	1.26	55	.85	1.26	55	.85	1.25	55	.91	1.36
60	.70	1.00	60	.80	1.20	60	.81	1.20	60	.81	1.20	60	.87	1.30
65	.67	.96	65	.77	1.15	65	.78	1.15	65	.78	1.15	65	.83	1.25
70	.64	.92	70	.73	1.10	70	.74	1.10	70	.75	1.11	70	.80	1.20
75	.62	.88	75	.71	1.06	75	.72	1.06	75	.72	1.07	75	.77	1.15
80	.60	.85	80	.68	1.02	80	.69	1.02	80	.70	1.04	80	.75	1.12
85	.58	.83	85	.66	.99	85	.67	.99	85	.68	1.01	85	.72	1.08
SLOPE = .550			SLOPE = .550			SLOPE = .550			SLOPE = .500			SLOPE = .530		

STANDARD INTENSITY–DURATION CURVES DATA

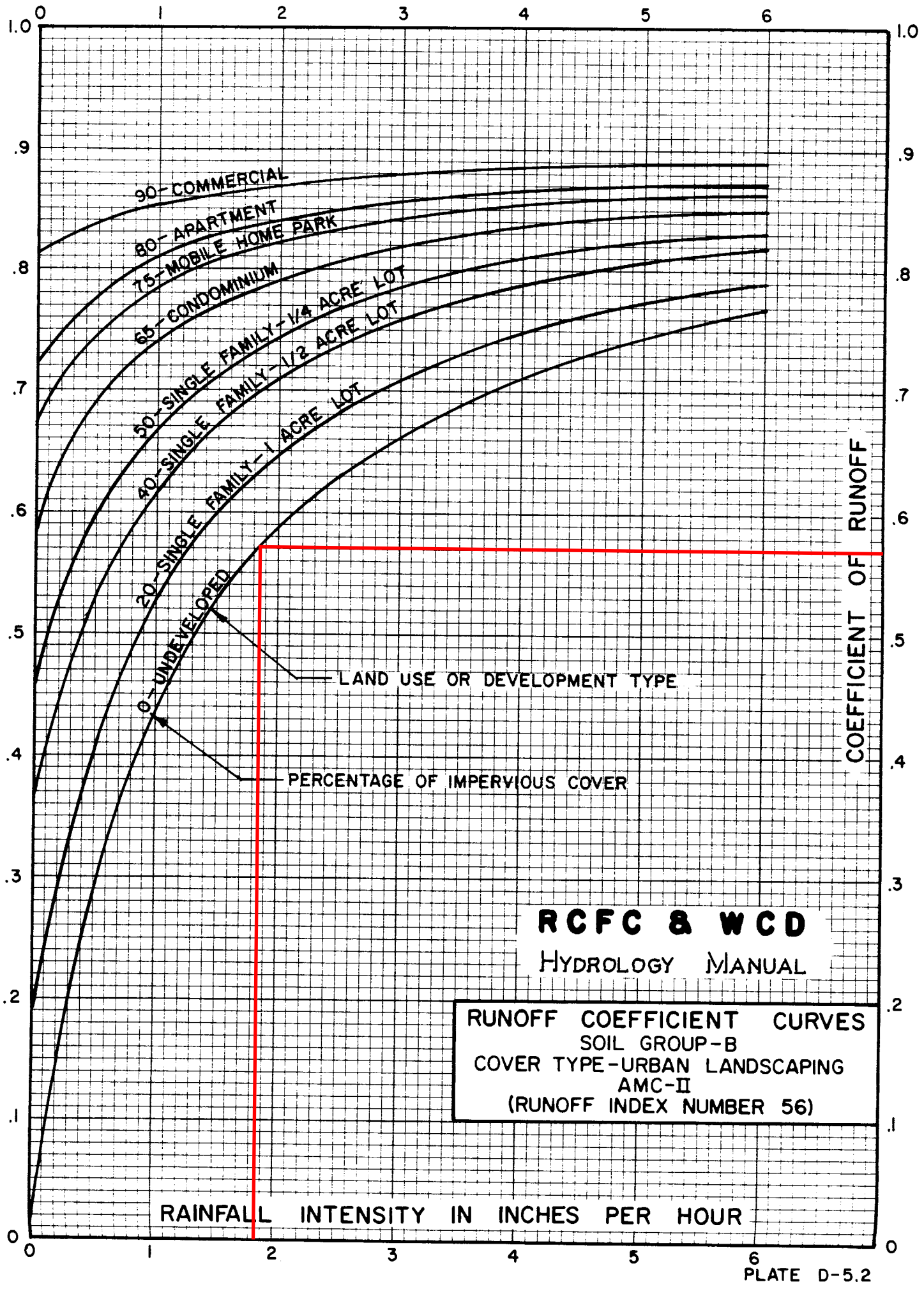
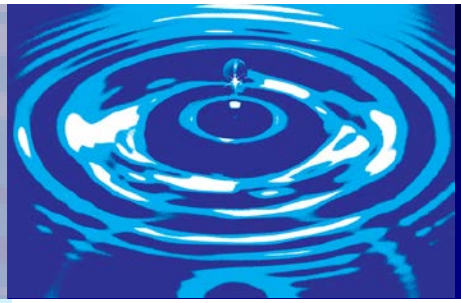
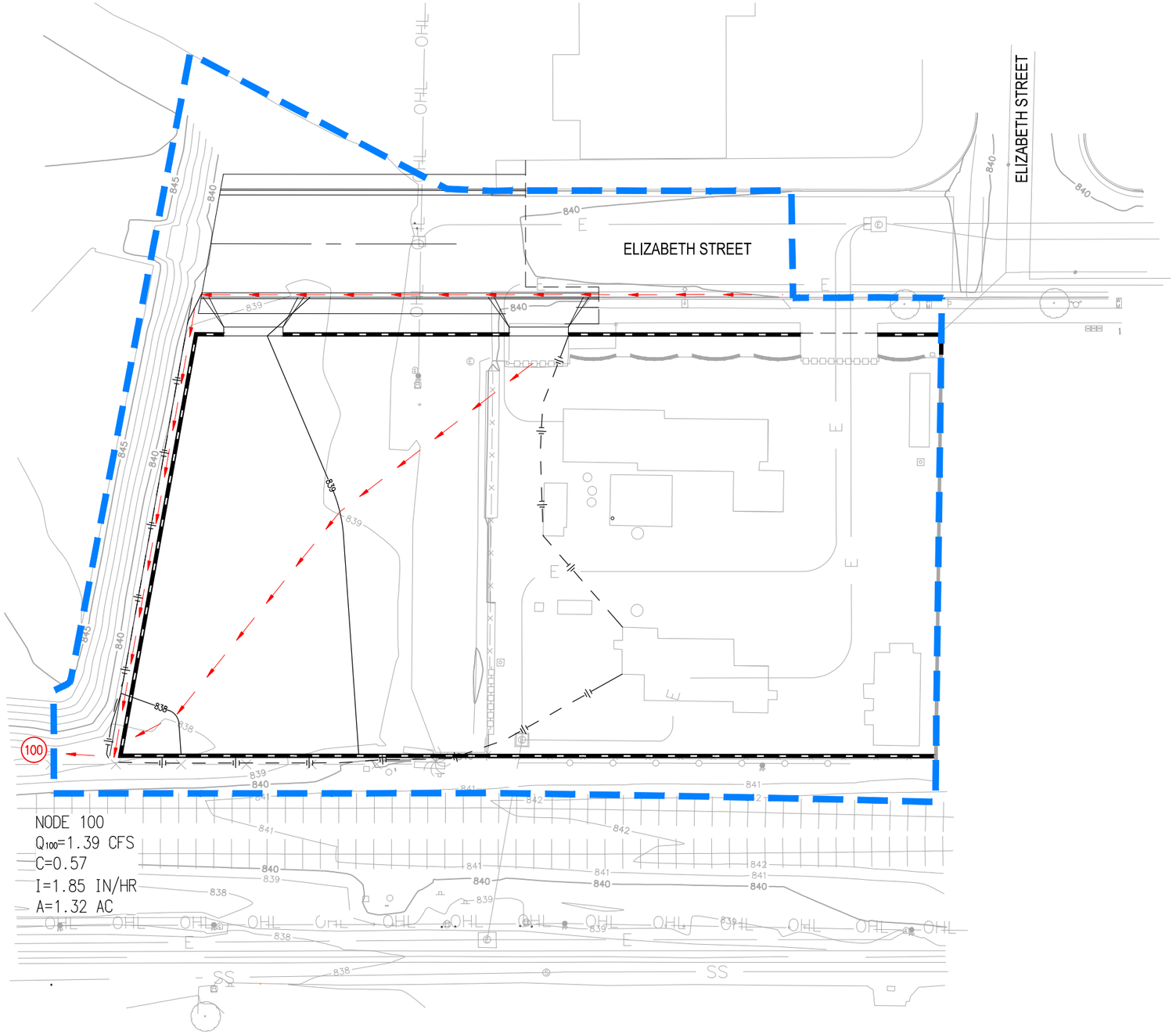

0
1
2
3
4
5
6
1.0
.9
.8
.7
.6
.5
.4
.3
.2
.1
90- COMMERCIAL
80- APARTMENT
75- MOBILE HOME PARK
65- CONDOMINIUM
50- SINGLE FAMILY - 1/4 ACRE LOT
40- SINGLE FAMILY - 1/2 ACRE LOT
20- SINGLE FAMILY - 1 ACRE LOT
0- UNDEVELOPED
LAND USE OR DEVELOPMENT TYPE
PERCENTAGE OF IMPERVIOUS COVER
COEFFICIENT OF RUNOFF
RAINFALL INTENSITY IN INCHES PER HOUR
RCFC & WCD
HYDROLOGY MANUAL
RUNOFF COEFFICIENT CURVES
SOIL GROUP-B
COVER TYPE-URBAN LANDSCAPING
AMC-II
(RUNOFF INDEX NUMBER 56)

PLATE D-5.2



Appendix C
Proposed Condition Hydrologic Work Map & Calculations



LEGEND

NODE 100

DRAINAGE AREA

FLOW PATH

SCALE: 1"=40'

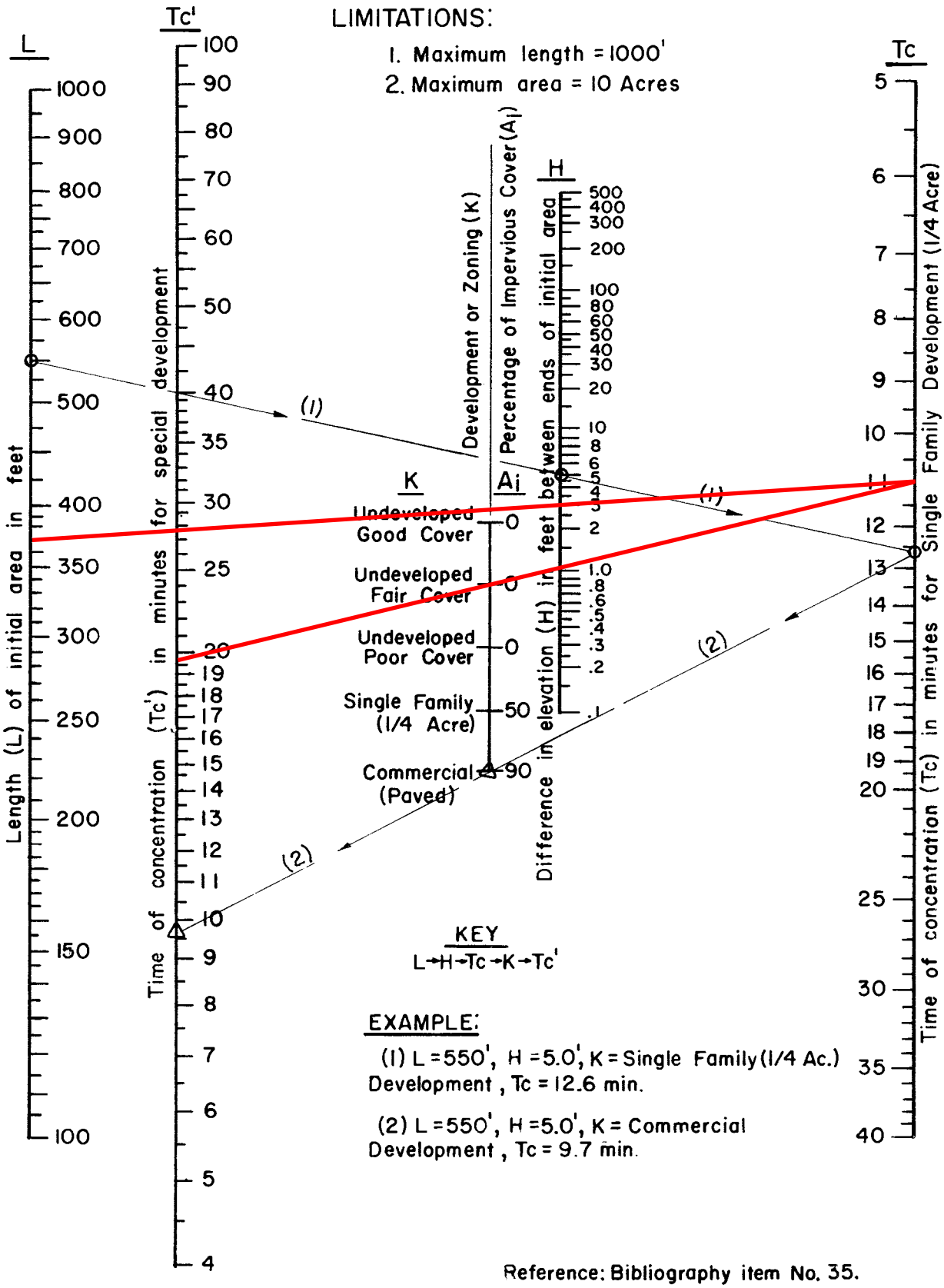
40 0 40 80 120

SCALE: 1"=40'

PLAZA T5 ADDITION POST DEVELOPMENT HYDROLOGIC WORK MAP

RBF CONSULTING
PLANNING ■ DESIGN ■ CONSTRUCTION
9755 CLAIREMONT MESA BOULEVARD, SUITE 100
SAN DIEGO, CALIFORNIA 92124-1324
858.614.5000 ■ FAX 858.614.5001 ■ www.RBF.com

H:\PDATA\134974\CADD\LAND\EXHIBITS\POST DEVELOPMENT.DWG ARIAS, PEDRO 9/12/2013 3:44 PM



Reference: Bibliography item No. 35.

RCFC & WCD
HYDROLOGY MANUAL

TIME OF CONCENTRATION FOR INITIAL SUBAREA

PLATE D-3

RAINFALL INTENSITY–INCHES PER HOUR

RIVERSIDE			RIVERSIDE (FOOTHILL AREAS)			RUBIDOUX			SAN JACINTO			SUN CITY		
DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR
5	2.75	3.92	5	3.14	4.71	5	3.18	4.71	5	2.81	4.16	5	3.25	4.85
6	2.48	3.55	6	2.84	4.26	6	2.87	4.26	6	2.56	3.79	6	2.95	4.40
7	2.28	3.26	7	2.61	3.91	7	2.64	3.91	7	2.37	3.51	7	2.72	4.06
8	2.12	3.03	8	2.42	3.63	8	2.45	3.63	8	2.22	3.29	8	2.53	3.78
9	1.99	2.84	9	2.27	3.41	9	2.30	3.41	9	2.09	3.10	9	2.38	3.55
10	1.88	2.68	10	2.14	3.21	10	2.17	3.21	10	1.98	2.94	10	2.25	3.36
11	1.78	2.54	11	2.03	3.05	11	2.06	3.05	11	1.89	2.80	11	2.14	3.19
12	1.70	2.42	12	1.94	2.91	12	1.96	2.91	12	1.81	2.68	12	2.04	3.05
13	1.62	2.32	13	1.86	2.78	13	1.88	2.78	13	1.74	2.58	13	1.96	2.92
14	1.56	2.23	14	1.78	2.67	14	1.80	2.67	14	1.68	2.48	14	1.88	2.81
15	1.50	2.14	15	1.71	2.57	15	1.74	2.57	15	1.62	2.40	15	1.81	2.71
16	1.45	2.07	16	1.66	2.48	16	1.68	2.48	16	1.57	2.32	16	1.75	2.62
17	1.40	2.00	17	1.60	2.40	17	1.62	2.40	17	1.52	2.25	17	1.70	2.54
18	1.36	1.94	18	1.55	2.33	18	1.57	2.33	18	1.48	2.19	18	1.65	2.46
19	1.32	1.88	19	1.51	2.26	19	1.52	2.26	19	1.44	2.13	19	1.60	2.39
20	1.28	1.83	20	1.46	2.20	20	1.48	2.20	20	1.40	2.08	20	1.56	2.33
22	1.22	1.74	22	1.39	2.08	22	1.41	2.08	22	1.34	1.98	22	1.48	2.21
24	1.16	1.66	24	1.32	1.99	24	1.34	1.99	24	1.28	1.90	24	1.41	2.11
26	1.11	1.58	26	1.27	1.90	26	1.28	1.90	26	1.23	1.82	26	1.36	2.03
28	1.06	1.52	28	1.22	1.82	28	1.23	1.82	28	1.19	1.76	28	1.30	1.95
30	1.02	1.46	30	1.17	1.76	30	1.19	1.76	30	1.15	1.70	30	1.26	1.88
32	.99	1.41	32	1.13	1.70	32	1.14	1.70	32	1.11	1.64	32	1.21	1.81
34	.96	1.37	34	1.09	1.64	34	1.11	1.64	34	1.08	1.59	34	1.18	1.76
36	.93	1.32	36	1.06	1.59	36	1.07	1.59	36	1.05	1.55	36	1.14	1.70
38	.90	1.29	38	1.03	1.54	38	1.04	1.54	38	1.02	1.51	38	1.11	1.66
40	.87	1.25	40	1.00	1.50	40	1.01	1.50	40	.99	1.47	40	1.08	1.61
45	.82	1.17	45	.94	1.41	45	.95	1.41	45	.94	1.39	45	1.01	1.51
50	.77	1.11	50	.88	1.33	50	.90	1.33	50	.89	1.31	50	.96	1.43
55	.73	1.05	55	.84	1.26	55	.85	1.26	55	.85	1.25	55	.91	1.36
60	.70	1.00	60	.80	1.20	60	.81	1.20	60	.81	1.20	60	.87	1.30
65	.67	.96	65	.77	1.15	65	.78	1.15	65	.78	1.15	65	.83	1.25
70	.64	.92	70	.73	1.10	70	.74	1.10	70	.75	1.11	70	.80	1.20
75	.62	.88	75	.71	1.06	75	.72	1.06	75	.72	1.07	75	.77	1.15
80	.60	.85	80	.68	1.02	80	.69	1.02	80	.70	1.04	80	.75	1.12
85	.58	.83	85	.66	.99	85	.67	.99	85	.68	1.01	85	.72	1.08
SLOPE = .550			SLOPE = .550			SLOPE = .550			SLOPE = .500			SLOPE = .530		

RCFC & WCD

HYDROLOGY MANUAL

STANDARD INTENSITY–DURATION CURVES DATA

PLATE D-4.1(5 of 6)

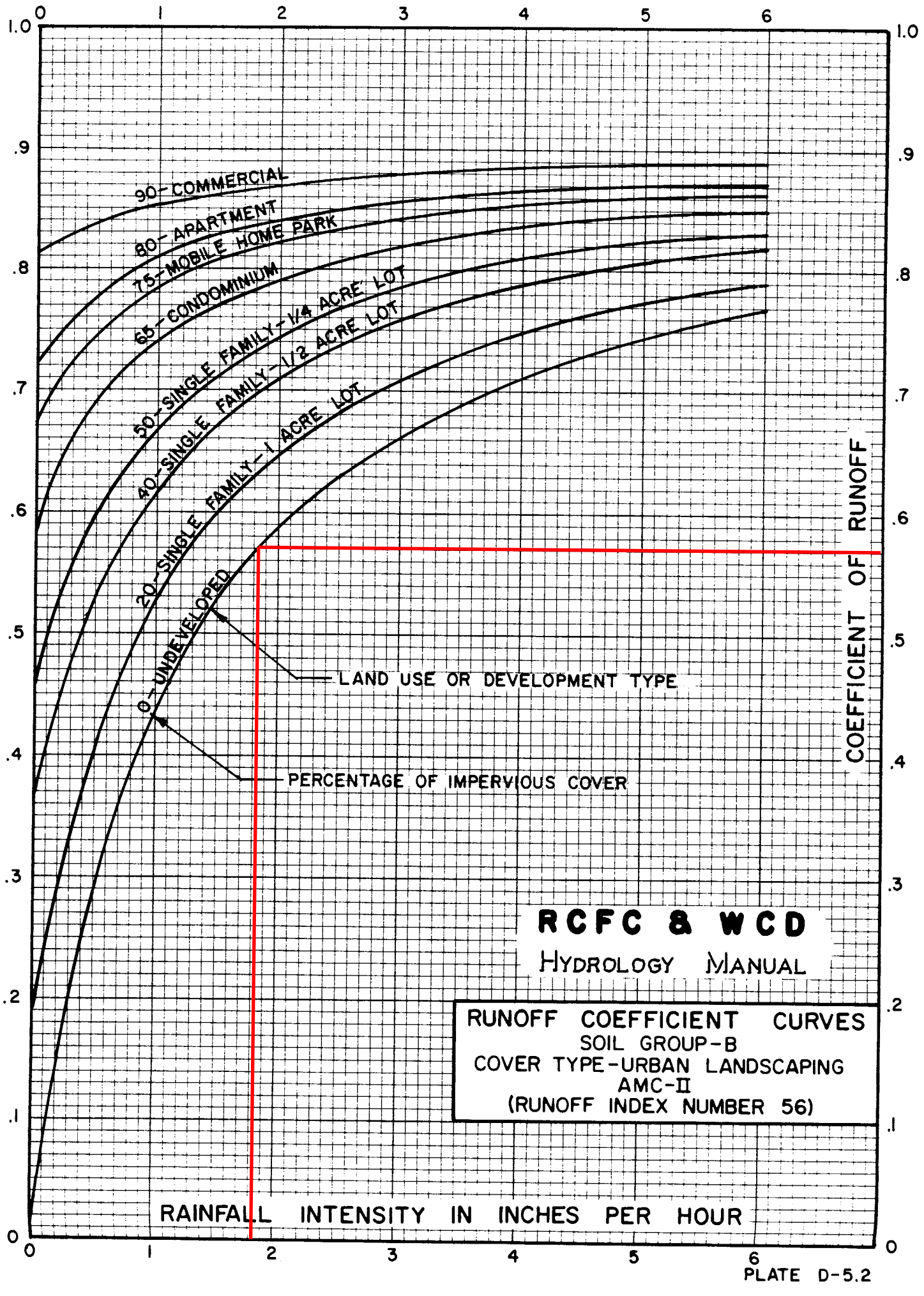

0
1
2
3
4
5
6
1.0
.9
.8
.7
.6
.5
.4
.3
.2
.1
0
90- COMMERCIAL
80- APARTMENT
75- MOBILE HOME PARK
65- CONDOMINIUM
50- SINGLE FAMILY - 1/4 ACRE LOT
40- SINGLE FAMILY - 1/2 ACRE LOT
20- SINGLE FAMILY - 1 ACRE LOT
0- UNDEVELOPED
LAND USE OR DEVELOPMENT TYPE
PERCENTAGE OF IMPERVIOUS COVER
COEFFICIENT OF RUNOFF
RAINFALL INTENSITY IN INCHES PER HOUR
RCFC & WCD
HYDROLOGY MANUAL
RUNOFF COEFFICIENT CURVES
SOIL GROUP - B
COVER TYPE - URBAN LANDSCAPING
AMC - II
(RUNOFF INDEX NUMBER 56)

PLATE D-5.2

E-2 Water Quality Management Plan

Project Specific
Water Quality Management Plan

For: **Magnolia-Plaza Reliability Project (MPRP)**

3716 ELIZABETH STREET
RIVERSIDE, CA 92506

DEVELOPMENT NO. **APN 225-052-10, 225-052-08, 225-052-21, 225-052-19 225-052-05, 225-052-04**

DESIGN REVIEW NO.

Prepared for:

City of Riverside
Public Utilities Department
3750 University Avenue, 3rd Floor
Riverside, CA 92501
Telephone: (951) 826-5485

Prepared by:
Richard S. Tomlinson, Jr., P.E. QSD
RBF Consulting, A Company of the Michael Baker Corp.
9755 Clairemont Mesa Blvd.
San Diego, CA 92124
Telephone: (858) 614-5065

WQMP Preparation/Revision Date: July 23, 2013

OWNER'S CERTIFICATION

This project-specific Water Quality Management Plan (WQMP) has been prepared for:

City of Riverside
Public Utilities Department
3750 University Avenue, 3rd Floor
Riverside, CA 92501

This project-specific Water Quality Management Plan (WQMP) has been prepared by RBF Consulting, A Company of the Michael Baker Corp. for the project known as **Magnolia-Plaza Reliability Project** at 3716 Elizabeth Street, Riverside, CA 92506.

This WQMP is intended to comply with the requirements of the City of Riverside for **MAGNOLIA-PLAZA RELIABILITY PROJECT**, 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 of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. 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 City of Riverside Water Quality Ordinance (Municipal Code Section 14.12).

If the undersigned transfers its interest in the subject property/project, its successor in interest the undersigned shall notify the successor in interest of its responsibility to implement this WQMP.

"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
City of Riverside	
Owner's Printed Name	Owner's Title/Position

City of Riverside
Public Utilities Department
3750 University Avenue, 3rd Floor
Riverside, CA 92501
Telephone: (951) 826-5485

Contents

I. Project Description

Instructions:

The project description shall be completely and accurately described in narrative form. In the field provided on page A-3, describe and with supporting figures (maps or exhibits), where facilities will be located, what activities will be co nducted and where, what kinds of materials will be used and/or stored, how and where materials will be delivered, and the types of w astes that will be generated. The following information shall be described and/or addressed in the "Project Description" section of the project-specific WQMP:

- Project owner and WQMP preparer;
- Project location;
- Project size;
- Standard Industrial Classification (SIC), if applicable;
- Location of facilities;
- Activities and location of activities;
- Materials Storage and Delivery Areas;
- Wastes generated by project activities.

Project Owner: City of Riverside
Public Utilities Department
3750 University Avenue, 3rd Floor
Riverside, CA 92501
(951) 826-5485

WQMP Preparer: RBF Consulting, a Company of the Michael Baker Corporation
9755 Clairemont Mesa Blvd.
San Diego, CA 92124
(858) 614-5065
Richard S. Tomlinson, Jr. P.E. QSD

Project Site Address:	3716 Elizabeth Street Riverside, CA 92506
Planning Area/ Community Name/ Development Name:	Magnolia-Plaza Reliability Project (MPRP)
APN Number(s):	225-052-10, 225-052-08, 225-052-21, 225-052-19, 225-052-05, 225-052-04
Project Location:	Latitude: N 33° 57' 27.5004" Longitude: W 117° 23' 32.9814"
Project Watershed:	Middle Santa Ana River, HA 801.20
Sub-watershed:	Riverside, HAS 801.27
Project Site Size:	0.54 acres

Standard Industrial Classification (SIC) Code: 3612, 3613

Formation of Home Owners' Association (HOA) or Property Owners Association (POA):

Y ☐ N ☒

Responsibility for the long term maintenance and operation of the BMP's within the limits of the project will be the responsibility of the City of Riverside.

Additional Permits/Approvals required for the Project

AGENCY	Permit required
State Department of Fish and Game, 1601 Streambed Alteration Agreement	Y ☐ N ☒
State Water Resources Control Board, Clean Water Act (CWA) section 401 Water Quality Certification	Y ☐ N ☒
US Army Corps of Engineers, CWA section 404 permit	Y ☐ N ☒
US Fish and Wildlife, Endangered Species Act section 7 biological opinion	Y ☐ N ☒
Other *(please list in the space below as required)* City of Riverside Building Permit	Y ☒ N ☐
City of Riverside Grading Permit	Y ☒ N ☐

Project Description:

The project site is Phase 1 of the Magnolia-Plaza Reliability Project (MPRP). The site is an expansion to the existing Plaza Substation located at 3716 Elizabeth Street, approximately 0.8 miles west of California State Route 91 between Elizabeth Street and Magnolia Avenue in the City of Riverside, California, within the Magnolia Center Community. Approximately 23,668 square feet of new property, adjacent to the west side of the Plaza Substation, will be acquired for adding new transformer and switchgear. The Plaza Substation is an existing 69 kV substation fed by two 69 kV lines that deliver power to the substation. Plaza has one 69kV/12kV transformer and three 69kV/12kV substation transformers. Each transformer is currently connected to its own switchgear with 4 kV or 12 kV circuit breakers that deliver power out of the substation to several distribution circuits providing service throughout the city.

Phase 1 of the Magnolia-Plaza Reliability Project includes the addition of an arc-resistant switchgear building, transformers, breakers, a capacitor bank, control and power pits, getaways and power vaults, related bus work, as well as the relocation of the 69 kV Mt. View line. The existing control building will be reused. The existing block wall and security fence around the perimeter of the existing Plaza Substation will be removed. A new 10-foot perimeter block wall will be installed around the perimeter of the existing and new substation property. The two existing gates will be replaced with a new gate, the east gate being motorized with keypad entry. In addition, a new motorized, rolling gate with a new driveway, sidewalk, and keypad entry will be added at the end of Elizabeth Street in order to access the new property. The front of the existing and expanded substation will be landscaped with new drought tolerant plants and trees. A new irrigation system with backflow prevention will be installed to accommodate the new landscaping along the front of the substation.

Increase/Decrease in Impervious Areas

Surface Type	To Be Removed	To Be Added	Decrease/Increase
Walkways	0	1,708 SF	1,708 SF
Building	0	0	0
Patio	0	0	0
Increase in Impervious Area			1,708 SF

Disturbed Area by Type

Surface Type	To Be Removed
Walkways	1,708 SF
Building	0
Patio	17,112 SF
Landscaping	0
BMP Areas	0
Total Disturbed Area	18,820 SF

A new driveway, sidewalk, AC pavement, and keypad entry will be added at the end of Elizabeth Street in order to access the new property.

Appendix A of this project-specific WQMP will include a complete copy of the final Conditions of Approval. Appendix B of this project-specific WQMP shall include:

1. A Vicinity Map identifying the project site and surrounding planning areas in sufficient detail to allow the project site to be plotted on Co-Permittee base mapping; and
2. A Site Plan for the project. The Site Plan included as part of Appendix B depicts the following project features:
   - Location and identification of all structural BMPs, including Treatment Control BMPs.
   - Landscaped areas.
   - Paved areas and intended uses (i.e., parking, outdoor work area, outdoor material storage area, sidewalks, patios, tennis courts, etc.).

- Number and type of structures and intended uses (i.e., buildings, tenant spaces, dwelling units, community facilities such as pools, recreation facilities, tot lots, etc.).
- Infrastructure (i.e., streets, storm drains, etc.) that will revert to public agency ownership and operation.
- Location of existing and proposed public and private storm drainage facilities (i.e., storm drains, channels, basins, etc.), including catch basins and other inlets/outlet structures. Existing and proposed drainage facilities should be clearly differentiated.
- Location(s) of Receiving Waters to which the project directly or indirectly discharges.
- Location of points where onsite (or tributary offsite) flows exits the property/project site.
- Proposed drainage areas boundaries, including tributary offsite areas, for each location where flows exits the property/project site. Each tributary area should be clearly denoted.
- Pre- and post-project topography.

Appendix G of this project-specific WQMP shall include copies of CC&Rs, Covenant and Agreements, and/or other mechanisms used to ensure the ongoing operation, maintenance, funding, transfer and implementation of the project-specific WQMP requirements.

II. Site Characterization

Land Use Designation or Zoning: C – Commercial

Current Property Use: Undeveloped

Proposed Property Use: Electric Substation

Availability of Soils Report: Y ☐ N ☒ *Note: A soils report is required if infiltration BMPs are utilized. Attach report in Appendix E.*

Phase 1 Site Assessment: Y ☐ N ☒ *Note: If prepared, attached remediation summary and use restrictions in Appendix H.*

Receiving Waters for Urban Runoff from Site

Instructions:

On the following page, list in order of upstream to downstream, the receiving waters that the project is tributary to. Continue to fill each row with the receiving water's 303(d) listed impairments, designated beneficial uses, and proximity, if any, to a RARE beneficial use.

Receiving Waters for Urban Runoff from Site

Receiving Waters	303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Tequesquite Arroyo (Sycamore Creek) HAS 801.27	None	GWR, REC1, REC2, WARM, WILD, SPWN	N/A
Santa Ana River, Reach 3 HAS 801.21	Copper, Lead, Pathogens	AGR, GWR, REC1, REC2, WARM, WILD, RARE	RARE Water body, Approx. 1.6 miles from site.
Santa Ana River, Reach 2 HAS 801.12	Nutrients, Organic Enrichment/Low Dissolved Oxygen, Pathogens	AGR, GWR, REC1, REC2, WARM, WILD, RARE	RARE Water body, Approx. 14.5 miles from site.
Santa Ana River, Reach 1 HAS 801.11	Debris	REC1, REC2, WARM, WILD	RARE Water body, Approx. 37.5 miles from site.
Pacific Ocean	Not listed on Region 8 List of Impairments	IND, NAV, REC1, REC2, COMM, BIOL, WILD, RARE, MAR, AQUA, MIGR, SPWN, SHELL	RARE Water body, Approx. 40 miles from site.

III. Pollutants of Concern

Potential pollutants associated with Urban Runoff from the proposed project must be identified. Exhibit B of the WQMP provides brief descriptions of typical pollutants associated with Urban Runoff and a table that associates typical potential pollutants with types of development (land use). It should be noted that at the Co-Permittees discretion, the Co-Permittees may also accept updated studies from the California Association of Stormwater Quality Agencies (CASQA), USEPA, SWRCB and/or other commonly accepted agencies/associations acceptable to the Co-Permittee for determination of Pollutants of Concern associated with given land use. Additionally, in identifying Pollutants of Concern, the presence of legacy pesticides, nutrients, or hazardous substances in the site's soils as a result of past uses and their potential for exposure to Urban Runoff must be addressed in project-specific WQMPs. The Co-Permittee may also require specific pollutants commonly associated with urban runoff to be addressed based on known problems in the watershed. The list of potential Urban Runoff pollutants identified for the project must be compared with the pollutants identified as causing an impairment of Receiving Waters, if any. To identify pollutants impairing proximate Receiving Waters, each project proponent preparing a project-specific WQMP shall, at a minimum, do the following:

1. For each of the proposed project discharge points, identify the proximate Receiving Water for each discharge point, using hydrologic unit basin numbers as identified in the most recent version of the Water Quality Control Plan for the Santa Ana River Basin or the San Diego Region.
2. Identify each proximate identified above that is listed on the most recent list of Clean Water Act Section 303(d) list of impaired water bodies, which can be found at website www.waterboards.ca.gov/santaana/. List all pollutants for which the proximate Receiving Waters are impaired.
3. Compare the list of pollutants for which the proximate Receiving Waters are impaired with the pollutants expected to be generated by the project.

Attachment to Section III

Item #1 Addressed in Section II, Receiving Waters Table

Item #2 Addressed in Section II, Receiving Waters Table

Item #3 Commercial/Industrial Development will be used as the pollutant category for this WQMP. As such, the pollutants associated with Substation are listed below.

POLLUTANTS		Potential Source	303 (d) Listing
Expected	Potential		
Trash and Debris		Substation	No
Oil & Grease		Vehicles	No
Metals		Switchgear	No

Pollutants of Concern

Santa Ana River Reach 1, 2 and 3 are listed on the 2010 Santa Ana Region 303(d) List of Water Quality Limited Segments as being impaired by Copper, Debris, Lead, Nutrients, Organic Enrichment/Low Dissolved Oxygen, and Pathogens. As such, these pollutants are the Pollutants of Concern for this project.

Legacy Pollutants:

The project site is currently undeveloped. A portion of the site was previously occupied by Olympic Cleaners, which conducted dry cleaning at the site. It is not anticipated that there are any legacy pollutants to be accounted for.

IV. Hydrologic Conditions of Concern

Impacts to the hydrologic regime resulting from the Project may include increased runoff volume and velocity; reduced infiltration; increased flow frequency, duration, and peaks; faster time to reach peak flow; and water quality degradation. Under certain circumstances, changes could also result in the reduction in the amount of available sediment for transport; storm flows could fill this sediment-carrying capacity by eroding the downstream channel. These changes have the potential to permanently impact downstream channels and habitat integrity. A change to the hydrologic regime of a Project's site would be considered a hydrologic condition of concern if the change would have a significant impact on downstream erosion compared to the pre-development condition or have significant impacts on stream habitat, alone or as part of a cumulative impact from development in the watershed.

This project-specific WQMP must address the issue of Hydrologic Conditions of Concern unless one of the following conditions are met:

- **Condition A:** Runoff from the Project is discharged directly to a publicly-owned, operated and maintained MS4; the discharge is in full compliance with Co-Permittee requirements for connections and discharges to the MS4 (including both quality and quantity requirements); the discharge would not significantly impact stream habitat in proximate Receiving Waters; and the discharge is authorized by the Co-Permittee.
- **Condition B:** The project disturbs less than 1 acre. The disturbed area calculation should include all disturbances associated with larger plans of development.
- **Condition C:** The project's runoff flow rate, volume, velocity and duration for the post-development condition do not exceed the pre-development condition for the 2-year, 24-hour and 10-year 24-hour rainfall events. This condition can be achieved by minimizing impervious area on a site and incorporating other site-design concepts that mimic pre-development conditions. This condition must be substantiated by hydrologic modeling methods acceptable to the Co-Permittee.

  This Project meets the following condition: **Condition B.**

  Supporting engineering studies, calculations, and reports are included in Appendix C.

Attachment to Section IV.

	STORM EVENT					
	2-YEAR, 24-HOUR		10-YEAR, 24-HOUR		100-YEAR, 24-HOUR	
	Pre-development	Post-development	Pre-development	Post-development	Pre-development	Post-development
Q (cfs)	0.62	0.64	0.98	0.99	N/A	N/A
Velocity (ft/sec)	0.48	0.50	0.75	0.76	N/A	N/A
Volume (acre-feet)					N/A	N/A
Duration (minutes)	12.4	13.1	19.5	20.5	N/A	N/A

Existing Conditions

Surface Type	Area	'C' Value	C / A
Impervious	1.32	0.57	0.43
Pervious	0	0 0	
Total	1.32	**Composite C**	0.43

Proposed Condition

Surface Type	Area	'C' Value	C / A
Impervious	1.32	0.57	0.43
Pervious	0	0 0	
Total	1.32	**Composite C**	0.43

Time of Concentration = 10 minutes (per RCCF & WCD Hydrology Manual)

Intensity (10-year/24 hr) = 1.30 in/hr

Intensity (2-year/24 hr) = 0.83 in/hr

Area = 1.32 AC

V. Best Management Practices

V.1 SITE DESIGN BMPS

Project proponents shall implement Site Design concepts that achieve each of the following:

1) Minimize Urban Runoff
2) Minimize Impervious Footprint
3) Conserve Natural Areas
4) Minimize Directly Connected Impervious Areas (DCIAs)

The project proponent should identify the specific BMPs implemented to achieve each Site Design concept and provide a brief explanation for those Site Design concepts considered not applicable.

Instructions:

In field below, provide narrative describing which site design concepts were incorporated into project plans. If the project proponent implements a Co-Permittee approved alternative or equally-effective Site Design BMP not specifically described below, the Site Design BMP checkbox in Table I should be marked and an additional description indicating the nature of the BMP and how it addresses the Site Design concept should be provided. Continue with completion of Table 1.

Note: *The Co-Permittees general plan or other land use regulations/documents may require several measures that are effectively site design BMPs (such as minimization of directly connected impervious areas and/or setbacks from natural stream courses). T he Project Proponent should work with Co-Permittee staff to determine if those requirements may be interpreted as site design BMPs for use in this table/narrative. See Section 4.5.1 of the WQMP for additional guidance on Site Design BMPs.*

Following Table 1: if a particular Site Design BMP concept is found to be not applicable, please provide a brief explanation as to why the concept cannot be implemented. Also include descriptions explaining how each ***included*** *BMP will be implemented. In those areas where Site Design BMPs require ongoing maintenance, the inspection and maintenance frequency, the inspection criteria, and the entity or party responsible for implementation, maintenance, and/or inspection shall be described. The location of each Site Design BMP must also be shown on the WQMP Site Plan included in Appendix B.*

Site design BMP's for this project include draining all hardscape into the landscaped areas. Preserve natural drainage and discharge location for existing and proposed conditions. The project proposes onsite pervious gravel material to provide containment within the site. Minimal impervious areas are proposed.

Table 1. Site Design BMPs

Design Concept	Technique	Specific BMP	Included		
			Yes	No	N/A
Site Design Concept 1	*Minimize Urban Runoff*	Maximize the permeable area (See Section 4.5.1 of the WQMP).	☒	☐	☐
		Incorporate landscaped buffer areas between sidewalks and streets.	☒	☐	☐
		Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.	☒	☐	☐
		Use natural drainage systems.	☒	☐	☐
		Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.	☐	☒	☐
		Construct onsite ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.	☐	☐	☒
		Other comparable and equally effective site design concepts as approved by the Co-Permittee (Note: Additional narrative required to describe BMP and how it addresses Site Design concept).	☐	☐	☒

Table 1. Site Design BMPs (Cont.)

Design Concept	Technique	Specific BMP	Included		
			Yes	No	N/A
Site Design Concept 2	*Minimize Impervious Footprint*	Maximize the permeable area (See Section 4.5.1 of the WQMP).	☒	☐	☐
		Construct walkways, trails, patios, overflow parking lots, alleys, driveways, low-traffic streets and other low -traffic areas with open-jointed paving materials or permeable surfaces, such as pervious concrete, porous asphalt, unit pavers, and granular materials.	☒	☐	☐
		Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walk able environment for pedestrians are not compromised.	☒	☐	☐
		Reduce widths of street where off-street parking is available.	☐	☐	☒
		Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.	☐	☐	☒
Site Design Concept 3	*Conserve Natural Areas*	Other comparable and equally effective site design concepts as approved by the Co-Permittee (Note: Additional narrative required describing BMP and how it addresses Site Design concept).	☐	☐	☒
		Conserve natural areas (See WQMP Section 4.5.1).	☒	☐	☐
		Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.	☒	☐	☐
		Use natural drainage systems.	☒	☐	☐
		Other comparable and equally effective site design concepts as approved by the Co-Permittee (Note: Additional narrative required describing BMP and how it addresses Site Design concept).	☐	☐	☒

Table 1. Site Design BMPs (Cont.)

Design Concept	Technique	Specific BMP	Included		
			Yes	No	N/A
Site Design Concept 4	*Minimize Directly Connected Impervious Areas (DCIAs)*	Residential and commercial sites must be designed to contain and infiltrate roof runoff, or direct roof runoff to vegetative swales or buffer areas, where feasible.	☒	☐	☐
		Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping.	☒	☐	☐
		Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales.	☒	☐	☐
		Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings.	☒	☐	☐
		Urban curb/swale system: street slopes to curb; periodic swale inlets drain to vegetated swale/biofilter.	☐	☐	☒
		Dual drainage system: First flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder, high flows connect directly to MS4s.	☐	☐	☒
		Design driveways with shared access, flared (single lane at street) or wheel strips (paving only under tires); or, drain into landscaping prior to discharging to the MS4.	☐	☐	☒
		Uncovered temporary or guest parking on private residential lots may be paved with a permeable surface, or designed to drain into landscaping prior to discharging to the MS4.	☐	☐	☒
		Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design.	☐	☐	☒
		Overflow parking (parking stalls provided in excess of the Co-Permittee's minimum parking requirements) may be constructed with permeable paving.	☐	☐	☒
		Other comparable and equally effective design concepts as approved by the Co-Permittee (Note: Additional narrative required describing BMP and how it addresses Site Design concept).	☐	☐	☒

Non-applicable Site Design BMPs:

Site design BMP's that are applicable to parking lots are not being implemented because there is no new parking being proposed.

Project Site Design BMPs:

No formal improvements to the existing drainage patterns are proposed on site. The extension of the existing curb, gutter and sidewalk on Elizabeth Street will cause slightly different pre and post construction drainage patterns, but are consider negligible. The point of discharge from the site is the same in the existing and the proposed condition. Proposed improvements associated with the project will require minimal grading and will not have any impacts on the drainage. Onsite material will consist of pervious gravel material. The front of the existing and expanded substation will be landscaped with new drought tolerant plants and trees.

V.2 SOURCE CONTROL BMPS

Table 2. Source Control BMPs

BMP Name	Check One		If not applicable, state brief reason
	Included	Not Applicable	
Non-Structural Source Control BMPs			
Education for Property Owners, Operators, Tenants, Occupants, or Employees	☒	☐	
Activity Restrictions	☒	☐	
Irrigation System and Landscape Maintenance	☒	☐	
Common Area Litter Control	☒	☐	
Street Sweeping Private Streets and Parking Lots	☒	☐	
Drainage Facility Inspection and Maintenance	☒	☐	
Structural Source Control BMPs			
MS4 Stenciling and Signage	☐	☒	No storm drain inlets are located within paved areas of the project site.
Landscape and Irrigation System Design	☒	☐	
Protect Slopes and Channels	☒	☐	There are no proposed disturbances to any slopes. In addition, there are no channels within the project areas.
Provide Community Car Wash Racks	☐	☒	No car washing will be performed on site.
Properly Design:	☐	☐	
Fueling Areas	☐	☒	There are no fueling areas proposed for the project.
Air/Water Supply Area Drainage	☐	☒	There is no air/water supply areas proposed for the project.
Trash Storage Areas	☒	☐	
Loading Docks	☐	☒	There are no loading docks proposed for the project.
Maintenance Bays	☐	☒	There is no maintenance bays proposed for the project.
Vehicle and Equipment Wash Areas	☐	☒	There are no vehicle or equipment wash areas proposed for the project.
Outdoor Material Storage Areas	☐	☒	There is no outdoor material storage areas proposed.

Outdoor Work Areas or Processing Areas	☐	☒	There are no outdoor work areas or processing areas proposed for the project,
Provide Wash Water Controls for Food Preparation Areas	☐	☒	There are no food preparation areas proposed for the project.

Instructions: *Provide narrative below describing how each* ***included*** *BMP will be implemented, the implementation frequency, inspection and maintenance frequency, inspection criteria, and the entity or party responsible for implementation, maintenance, and/or inspection. The location of each structural BMP must also be shown on the WQMP Site Plan included in Appendix B.*

The City of Riverside Public Utilities (RPU) is responsible for implementing all related non-source control BMPs. The Common Area Litter Control, Irrigation System and Landscape Maintenance and the Sweeping of Private Streets and Parking Lots will be implemented by the City of Riverside.

Education for Occupants and Employees will be handled by the City of Riverside. The City will educate their employees in the proper procedures to minimize the possibility of illicit discharges.

Appendix D includes copies of the educational materials that will be used in implementing this project-specific WQMP.

ACTIVITY	SPECIFIC FREQUENCY	RESPONSIBLE PARTY
Non-Structural Source Controls		
Education	Provided at occupancy, within three months for new hires, and annually for existing employees	City of Riverside Public Utilities
Activity Restrictions	Daily	City of Riverside Public Utilities
Landscape Maintenance	Bi-weekly	City of Riverside Public Utilities
Litter Control	Daily	City of Riverside Public Utilities
Parking Lot/Street Sweeping	Monthly	City of Riverside Public Utilities
Drainage Inspection and Maintenance	Monthly	City of Riverside Public Utilities
Structural Source Controls		
Stenciling and Signage	Bi-annually	City of Riverside Public Utilities
Irrigation System Maintenance	Same as landscape maintenance	City of Riverside Public Utilities
Slopes and Channels	Same as landscape maintenance	City of Riverside Public Utilities
Trash Storage Areas	Daily	City of Riverside Public Utilities

V.3 TREATMENT CONTROL BMPS

Instructions:

1. *Provide narrative below describing each Treatment Control BMP. Include location, identify the sizing criteria [i.e., Urban Runoff quality design flow (QBMP) or the Urban Runoff quality design volume (VBMP), preliminary design calculations, for sizing BMPs, maintenance procedures, and the frequency of maintenance procedures necessary to sustain BMP effectiveness. The location of each Treatment Control BMP must also be shown on the Site Plan included in Appendix B.*
2. *Complete Table 3: Treatment Control BMP Selection Matrix*

   Directions for completing Table 3:

   - *For each pollutant of concern enter "yes" if identified using Exhibit B (Riverside County WQMP - General Categories of Pollutants of Concern per the instructions specified in Section III of this Template), or "no" if not identified for the project.*
   - *Check the boxes of selected BMPs that will be implemented for the project to address each pollutant of concern from the project as identified using Exhibit B. Treatment Control BMPs must be selected and installed with respect to identified pollutant characteristics and concentrations that will be discharged from the site.*
   - *For any identified pollutants of concern not listed in the Treatment Control BMP Selection Matrix, provide an explanation (in space below) of how they will be addressed by Treatment Control BMPs.*
3. *In addition to completing Table 3, provide detailed descriptions on the location, implementation, installation, and long-term O&M of planned Treatment* Control BMPs.

For identified pollutants of concern that are ***causing an impairment in receiving waters****, the project WQMP shall incorporate one or more Treatment Control BMPs of medium or high effectiveness in reducing those pollutants. It is the responsibility of the project proponent to demonstrate, and document in the project WQMP, that all pollutants of concern will be fully addressed. The Agency may require information beyond the minimum requirements of this WQMP to demonstrate that adequate pollutant treatment is being accomplished.*

Supporting engineering calculations for Q_{BMP} and/or V_{BMP}, and Treatment Control BMP design details are included in Appendix F.

Note*: Projects that will utilize infiltration-based Treatment Control BMPs (e.g., Infiltration Basins, Infiltration Trenches, Porous Pavement) must include a copy of the property/project soils report as Appendix E to the project-specific WQMP. The selection of a Treatment Control BMP (or BMPs) for the project must specifically consider the effectiveness of the Treatment Control BMP for pollutants identified as causing an impairment of Receiving Waters to which the project will discharge Urban Runoff.*

Pollutants of concern for this project include:

- Trash and Debris
- Oil & Grease
- Metals

The project proposes onsite pervious gravel material to provide containment within the site. In case of a transformer oil spill, it will drain into a secondary oil containment pit. Small leaks would be detected during scheduled visual inspections.

In addition, the project proposes a vegetated swale located along the west side of the project site. The vegetated swale treats the runoff from Elizabeth Street. Because of the lack of underground storm drain in the project area, the number of opportunities for treatment is limited. Therefore, we are using the BMP's that we feel will be most effective, while also being feasible for the site.

Table 3: Treatment Control BMP Selection Matrix (1)

Pollutant of Concern	Treatment Control BMP Categories(2)							
	Veg. Swale & Veg. Filter Strips(3)	Detention Basins(4)	Infiltration Basins, Infiltration Trenches, & Porous Pavement(5)	Wet Ponds or Wetlands(6)	Sand Filter or Media Filters	Water Quality Inlets	Hydrodynamic Separator Systems (7)	Manufactured / Proprietary Devices(8)
Sediment / Turbidity	H/M	M	H/M	H/M	H/M	L	H/M (L for turbidity)	U
Y ☐ N ☒	☐	☐	☐	☐	☐	☐	☐	☐
Nutrients	L	M	H/M	H/M	L/M	L	L	U
Y ☐ N ☒	☐	☐	☐	☐	☐	☐	☐	☐
Organic Compounds (toxicity)	U	U	U	U	H/M	L	L	U
Y ☐ N ☒	☐	☐	☐	☐	☐	☐	☐	☐
Trash & Debris	L	M	U	U	H/M	M	H/M	U
Y ☒ N ☐	☒	☐	☐	☐	☐	☐	☐	☐
Oxygen Demanding Substances	L	M	H/M	H/M	H/M	L	L	U
Y ☐ N ☒	☐	☐	☐	☐	☐	☐	☐	☐
Bacteria & Viruses	U	U	H/M	U	H/M	L	L	U
Y ☐ N ☒	☐	☐	☐	☐	☐	☐	☐	☐
Oils & Grease	H/M	M	U	U	H/M	M	L/M	U
Y ☒ N ☐	☒	☐	☐	☐	☐	☐	☐	☐
Pesticides (non-soil bound)	U	U	U	U	U	L	L	U
Y ☐ N ☒	☐	☐	☐	☐	☐	☐	☐	☐
Metals	H/M	M	H	H	H	L	L	U
Y ☒ N ☐	☐	☐	☐	☐	☐	☐	☐	☐

Abbreviations:

L: Low removal efficiency H/M: High or medium removal efficiency U: Unknown removal efficiency

Notes:

(1) Periodic performance assessment and updating of the guidance provided by this table may be necessary.

(2) Project applicants should base BMP designs on the Riverside County Stormwater Quality Best Management Practice Design Handbook. However, project applicants may also wish to reference the California Stormwater BMP Handbook – New Development and Redevelopment (www.cabmphandbooks.com). The Handbook contains additional information on BMP operation and maintenance.

(3) Includes grass swales, grass strips, wetland vegetation swales, and bioretention.

(4) Includes extended/dry detention basins with grass lining and extended/dry detention basins with impervious lining. Effectiveness based upon minimum 36-48-hour drawdown time.

(5) Projects that will utilize infiltration-based Treatment Control BMPs (e.g., Infiltration Basins, Infiltration Trenches, Porous Pavement, etc.) must include a copy of the property/project soils report as Appendix E to the project-specific WQMP. The selection of a Treatment Control BMP (or BMPs) for the project must specifically consider the effectiveness of the Treatment Control BMP for pollutants identified as causing an impairment of Receiving Waters to which the project will discharge Urban Runoff.

(6) Includes permanent pool wet ponds and constructed wetlands.

(7) Also known as hydrodynamic devices, baffle boxes, swirl concentrators, or cyclone separators.

(8) Includes proprietary stormwater treatment devices as listed in the CASQA Stormwater Best Management Practices Handbooks, other stormwater treatment BMPs not specifically listed in this WQMP, or newly developed/emerging stormwater treatment technologies.

V.4 EQUIVALENT TREATMENT CONTROL ALTERNATIVES

Not Applicable.

V.5 REGIONALLY-BASED TREATMENT CONTROL BMPS

Not Applicable.

VI. Operation and Maintenance Responsibility for Treatment Control BMPs

Operation and maintenance (O&M) requirements for all structural Source Control and Treatment Control BMPs shall be identified in the project-specific WQMP. The project-specific WQMP shall address the following:

- Identification of each BMP that requires O&M.
- Thorough description of O&M activities, the O&M process, and the handling and placement of any wastes.
- BMP start-up dates.
- Schedule of the frequency of O&M for each BMP.
- Identification of the parties (name, address, and telephone number) responsible for O&M, including a written agreement with the entities responsible for O&M. This agreement can take the form of a Covenant and Agreement recorded by the Project Proponent with the County Recorder, HOA or POA CC&Rs, formation of a maintenance district or assessment district or other instrument sufficient to guarantee perpetual O&M. The preparer of this project-specific WQMP should carefully review Section 4.6 of the WQMP prior to completing this section of the project-specific WQMP.
- Self-inspections and record-keeping requirements for BMPs (review local specific requirements regarding self-inspections and/or annual reporting), including identification of responsible parties for inspection and record- keeping.
- Thorough descriptions of water quality monitoring, if required by the Co-Permittee.

Instructions: *Identify below all operations and maintenance requirements, as described above, for each structural BMP. Where a public agency is identified as the funding source and responsible party for a Treatment Control BMP, a copy of the written agreement stating the public agency's acceptance of these* responsibilities must be provided in Appendix G.

Structural Treatment BMPs	Quantity	Capital Costs ($)	Annual O&M Costs ($)	Start-Up Dates	O&M Frequency (weekly/ monthly/ quarterly)	Responsible Funding Party for installation	Responsible Funding Party for Long-Term O&M
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

BMP INSPECTION

The owner of the property shall perform maintenance in accordance with the Maintenance and Repair Schedule shown below.

Maintenance Program for Vegetated Swale

Inspection Frequency/Indications:	Regular Inspections ❑ Before wet season begins (September); ❑ Every 60 days during wet season (September-April); ❑ After wet season (April). Performance Inspections ❑ After rainfall events greater than 0.5 inch
Maintenance Indications Connections	**Maintenance Activities Connections**
❑ Damage to inlet/outlet, sideslopes, headwall, or other structures	❑ Repair inlet/outlet structures, side slopes, fences, or other structural elements as needed to maintain performance of the facility.
❑ Over-grown vegetation, emergent woody vegetation and/or weeds	❑ Trim vegetation to average height of 12 inches and remove trimmings. ❑ Remove emergent trees and other vegetation that are not part of bioretention basin plan and weeds ❑ Re-seed and re-plan barren areas prior to rainy season ❑ Install erosion blanket on barrent spots if re-vegetation is not successful
❑ Sediment accumulation over 3 inches	❑ Remove sediment accumulation at or near plant height
❑ Trash, debris, and vegetative litter	❑ Remove trash, debris, and vegetative litter
❑ Rodents or other vectors	❑ Abate and control rodents as necessary to maintain performance of the facility ❑ Drain standing water

WASTE DISPOSAL

All sediment or other pollutants removed from treatment control BMPs shall be properly disposed of in a landfill or by another appropriate disposal method as approved by the Regional Water Quality Control Board. All construction waste shall be disposed of off-site in accordance with local, state, and Federal regulations. Interim storage and disposal of these wastes shall also be in accordance with the best management practices outlined in the Storm Water Pollution Prevention Plan for Construction Activities developed for the project site.

BEST MANAGEMENT PRACTICES FOR MAINTENANCE ACTIVITIES

Maintenance of the BMPs often requires activities like grading and the use of equipment that can present a potential pollutant source. The BMPs required to address these potential pollutant sources are similar to those found in Stormwater Pollution Prevention Plans for Construction Activities (SWPPPs). The list below summarizes the BMPs that may be implemented during typical BMP maintenance activities, which usually include minor grading and other construction activities over a short duration of time outside of the rainy season.

Additional BMPs may be added for major repairs of longer duration or as appropriate to particular site conditions at the time of maintenance. For instance, if a particular BMP required repair of a concrete inlet

structure, BMP measures for Paving and Grinding Operations (NS 3) and Concrete Waste Management (WM 8) may become applicable. If BMP repair must take place during the rainy season, sediment control BMPs would be mandatory.

Typical BMPs for BMP Maintenance Activities.

Soil Stabilization BMPs
Scheduling (SS-1)
Preservation of Existing Vegetation (SS-2)
Tracking Control BMPs
Stabilized Construction Access (TC-1)
Non-Storm Water Management BMPs
Illicit Connection/Discharge Detection/Reporting (NS-6)
Vehicle and Equipment Cleaning (NS-8)
Vehicle and Equipment Fueling (NS-9)
Vehicle and Equipment Maintenance (NS-10)

Waste Management BMPs
Material Delivery and Storage (WM-1)
Material Use (WM-2)
Stockpile Management (WM-3)
Spill Prevention and Control (WM-4)
Solid Waste Management (WM-5)
Hazardous Waste Management (WM-6)
Contaminated Soil Management (WM-7)
Sanitary Waste Management (WM-9)

RECORD-KEEPING

Maintenance and inspection records for BMPs must be kept for a minimum of five years.

QUALIFICATIONS OF MAINTENANCE PERSONNEL

Maintenance personnel must be trained in the proper procedures to inspect treatment and source control BMPs, to determine if maintenance on the BMPs is required, and to perform such maintenance. Training for maintenance personnel will be provided by the contractors retained for storm water facility maintenance by the project owner, and would likely include attendance at training sessions such as those provided by the Regional Water Quality Control Board (RWQCB) and/or the City of Riverside.

VII. Funding

A funding source or sources for the O&M of each Treatment Control BMP identified in the project-specific WQMP must be identified. By certifying the project-specific WQMP, the Project applicant is certifying that the funding responsibilities have been addressed and will be transferred to future owners. One example of how to adhere to the requirement to transfer O&M responsibilities is to record the project-specific WQMP against the title to the property.

FUNDING CERTIFICATION

A source of funding is required for all site design, source control, and treatment BMPs. For this project, the owner will fund the installation, and operation and maintenance of all BMPs set forth in this WQMP until the project is transferred to a new owner. Each owner shall record this WQMP with the County of Riverside as an attachment to the title of the property in order to transfer the O&M responsibilities to each new owner. Where the owner requires a lessee or other party to install, and operate and maintain the BMPs, the owner will maintain ultimate funding responsibilities, and will, upon default of the lessee or other party to fulfill these responsibilities, shall cause the same to be performed at the owner's expense. Nothing in this WQMP shall prevent the owner from pursuing cost recovery from any lessee or other party responsible for the BMPs, or from pursuing remedies for the default of responsibilities as provided by the lease contract and law.

The owner for Magnolia-Plaza Reliability Project (MPRP), 3716 Elizabeth Street, Riverside, CA 92506 will be responsible for the installation, and operation and maintenance of all BMPs until such time that the site is transferred to a new owner.

_____ _____

Owner or Company Official's Signature Date

_____ _____

Owner or Company Official's Printed Name Owner or Company Official's Title/Position

City of Riverside
Public Utilities Department
3750 University Avenue, 3rd Floor
Riverside, CA 92501
(951) 826-5485

Appendix A

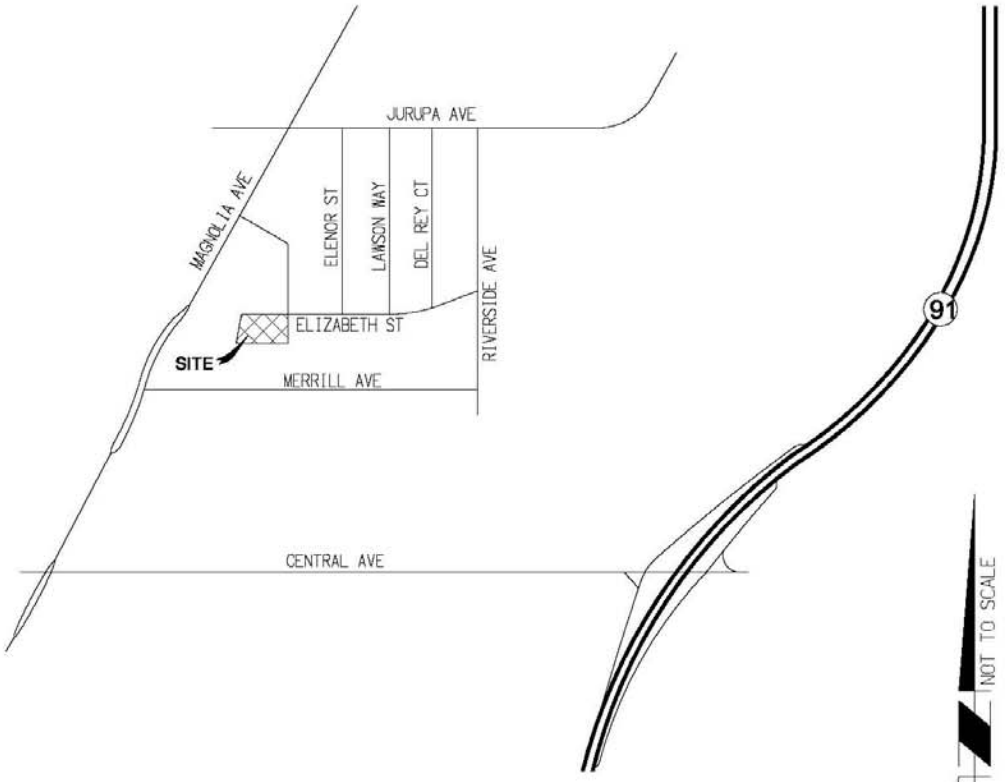
Conditions of Approval

Planning Commission Resolution _____

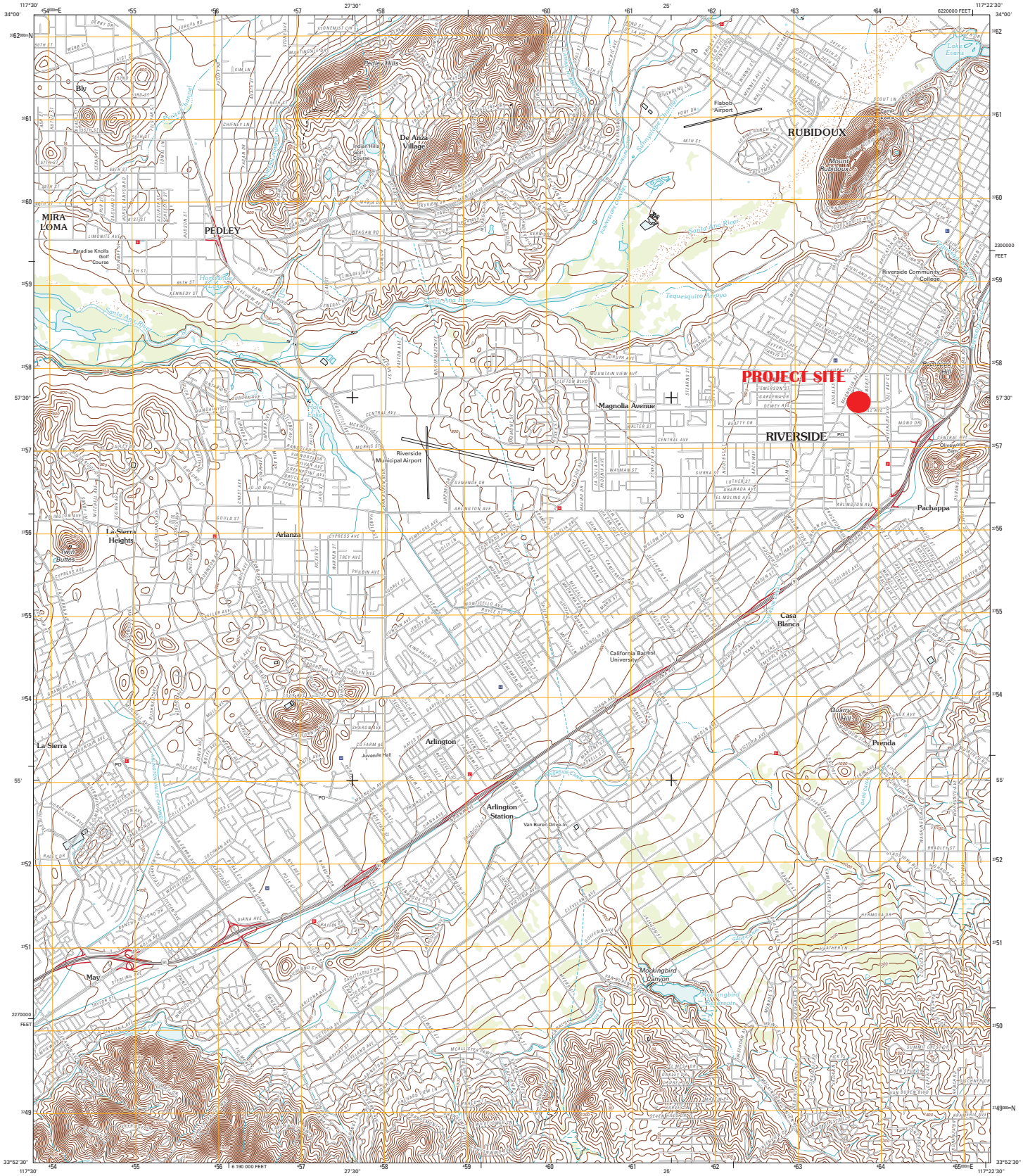
Dated _____

Appendix B

Vicinity Map, WQMP Site Plan, and Receiving Waters Map



VICINITY MAP



U.S. DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

USGS science for a changing world

The National Map US Topo

RIVERSIDE WEST QUADRANGLE
CALIFORNIA-RIVERSIDE CO.
7.5-MINUTE SERIES

SCALE 1:24 000

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid: Universal Transverse Mercator, Zone 11S
10 000-foot ticks: California Coordinate System of 1983 (zone 6)

Imagery.....NAIP, May 2010
Roads.....©2006-2011 TomTom
Names.....GNIS, 2011
Hydrography.....National Hydrography Dataset, 2010
Contours.....National Elevation Dataset, 1999
Boundaries.....Census, IBWC, IBC, USGS, 1972 - 2010

UTM GRID AND 2012 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
MT
Grid Zone Designation
11S

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.1

QUADRANGLE LOCATION

Guasti	Fontana	San Bernardino South
Corona North	Riverside West	Riverside East
Corona South	Lake Mathews	Steele Peak

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIFICATION

Interstate Route	State Route
US Route	Local Road
Ramp	4WD

Interstate Route · US Route · State Route

RIVERSIDE WEST, CA
2012

RECEIVING WATERS MAP

Lake Evans

Santa Ana River, Reach 3

Anza Park Drain

La Sierra Channel

Temescal Creek, Reach 1

Arlington Channel

Mockingbird Reservoir

Sycamore Creek

Main St

215 Fwy

60/215 Fwy

3rd St

University Ave

14th St

RCC

Chicago Ave

UCR

Jurupa Ave

Central Ave

Arlington Ave

La Sierra Ave

Tyler St

La Sierra Univ

Magnolia Ave

Madison St

91 Fwy

Victoria Ave

Adams St

Washington St

60 Fwy

Sycamore Canyon Park

Alessandro Blvd

Trautwein Rd

Van Buren Blvd

Lake Matthews

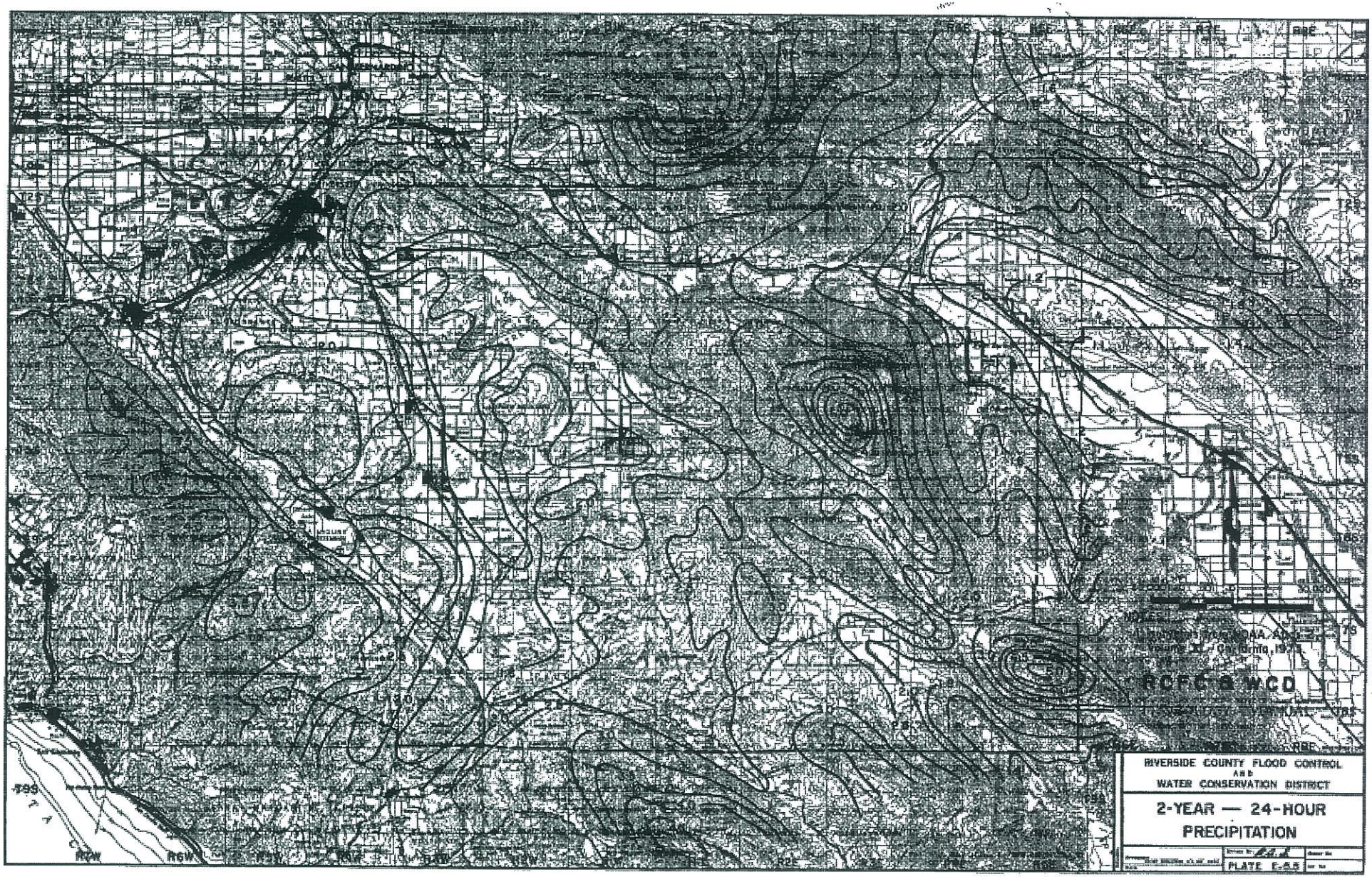
N

LEGEND

- Lake Evans to Santa Ana River, Reach 3
- Tequesquite Arroyo (Sycamore Creek) to Santa Ana River, Reach 3
- Anza Park Drain to Santa Ana River, Reach 3
- Santa Ana River, Reach 3
- Mockingbird Reservoir to Temescal Creek, Reach 1 to Santa Ana River, Reach 3 - via Arlington Channel
- Temescal Creek, Reach 1 to Santa Ana River, Reach 3 - via Arlington Channel
- Temescal Creek, Reach 1 to Santa Ana River, Reach 3 - via La Sierra Channel to Arlington Channel
- Outside City Limits
- San Jacinto Watershed

Appendix C

Supporting Detail Related Hydraulic Conditions of Concern


RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT
2-YEAR — 24-HOUR
PRECIPITATION
PLATE E-5.5

Appendix D
Educational Materials

No educational Materials are available at this time.

Appendix E

Soils Report

Burns & McDonnell
SINCE 1898

September 17, 2003

Chiu Wong
Riverside Public Utilities
3900 Main Street
Riverside, California 92522

Riverside Public Utilities
West Loop Fiber Optic Network Design
Control Building Foundation Design
Project No.: 33691

Dear Chiu:

I am enclosing one (1) original copy of the soils report we received from C.H.J., Inc. as you have requested.

Sincerely,

Jim Cupp, P.E.
Project Manager

JGC/jgc

Enclosure

9400 Ward Parkway
Kansas City, Missouri 64114-3319
Tel: 816 333-9400
Fax: 816 333-3690
www.burnsmcd.com

C • M • J • INCORPORATED

P.O. Box 231. Colton. CA 92324-0231 • 1355 E. Cooley Dr.. Colton, CA 92324-3954 • Phone (909) 824-7210 • Fax (909) 824-7209

August 4, 2003

Burns & McDonnell Engineering Company, Inc.

P. O. Box 419173

Kansas City, Missouri 64141-6173

Attention: Mr. Allen Abbott

Job No. 03702-3

Subject: Field Investigation and Laboratory Testing Results
West Loop Fiber Optic Design
Project No. 33691
City of Riverside, California

Dear Mr. Abbott:

As requested, this firm has performed the field investigation and laboratory testing services for the Mountain View and Plaza electrical substation sites located in the City of Riverside, California. This report describes our procedures and presents the results of these investigations in accordance with the scope of services outlined within your Purchase Order Agreement dated July 15, 2003.

FIELD INVESTIGATION

The two separate City of Riverside sites were investigated by this firm on July 25, 2003. A brief description of each site is presented below in the order investigated. The enclosure numbers refer to individual Site Maps showing the boring locations.

Field copies of the boring logs were provided vis facsimile to Burns & McDonnell Engineering Company, Inc. upon completion of the field investigation for their review and use in assigning the laboratory tests.

Our exploratory boring logs, together with our raw blowcount data, are presented in Appendix "B". The stratification lines presented on the boring logs represent approximate boundaries between soil types, which may include gradual transitions.

LABORATORY INVESTIGATION

The results of the requested laboratory tests are presented in Appendix "C".

Field moisture content and dry density determinations were performed on the requested samples. The results are included on the boring logs. Generally, six 1-inch thick rings were sampled from within the bottom 12 inches of the 18-inch drive. In the laboratory, the top and bottom rings of the sample were weighed and dried for moisture content determinations. The remaining four rings were carefully weighed for density determinations and then saved for additional laboratory tests.

Sieve analyses were performed on the requested samples, and the plotted gradation curves are attached as Enclosures "C-1" and "C-2". The visual soil classifications indicated on the boring logs have not been verified with data obtainable from the gradation curves and, as such, may need to be reclassified.

Modified proctor (ASTM D 1557) maximum density - optimum moisture content curves were determined for the requested samples (Enclosure "C-3").

Consolidated, drained direct shear tests (ASTM D 3080) were performed on the requested undisturbed samples. The plotted results are attached as Enclosure "C-4".

Site No. 1 (Mountain View Substation):

Boring No. 1 was placed within the area of the future control house as shown on Enclosure "A-1". The boring was located between existing electrical lines buried beneath the central portion of the indicated future control house and existing guywires anchored into the ground within the eastern portion of the indicated future control house. Both the buried electrical lines and the guywires appear to run in a northerly direction to power poles not shown on the provided map. At the time of this investigation, the area of the future control house was level and covered with gravel.

Site No. 2 (Plaza Substation):

Boring No. 2 was placed within the area of the future control house as shown on Enclosure "A-2". At the time of this investigation, the area of the future control house was level and covered with gravel.

Prior to initiating our field investigation, our project engineer met with City of Riverside personnel to mark the boring locations at each site and to discuss the necessary arrangements to be made with the City for access onto each of the sites.

One exploratory boring was placed at each site in the area of the indicated future control house utilizing a truck-mounted CME 55 drill rig and 8-inch hollow stem augers. Each boring was drilled to a maximum depth of approximately 26.5 feet below the existing ground surface.

Continuous logs of the subsurface conditions, as encountered within the exploratory borings, were recorded at the time of drilling by a staff geologist from this firm at the direction of our project engineer. Undisturbed samples were obtained using a "California" ring sampler driven with an automatic hammer. Four driven samples were obtained from the upper 10 feet, then at 5-foot intervals thereafter to the maximum depth of 26.5 feet attained in each boring. As requested, we have reported the raw number of hammer blows for each of the three 6-inch portions of the 18-inch drive. Undisturbed as well as bulk samples of typical soil types obtained were returned to the laboratory in sealed containers for testing and evaluation.

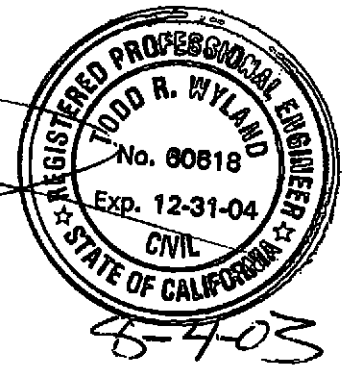
Samples of the material for requested chemical/corrosivity testing including pH, chloride, resistivity, and soluble sulfate analyses were delivered to M. J. Schiff & Associates, Inc. The results are summarized on Enclosure "C-5".

CLOSURE

We appreciate this opportunity to be of service and trust this report provides the information desired at this time. Should questions arise, please do not hesitate to contact this office at your convenience.

Respectfully submitted,

C.H.J., INCORPORATED



Todd R. Wyland, R.C.E. 60618
Project Engineer

Robert J. Johnson, G.E.
Senior Vice President

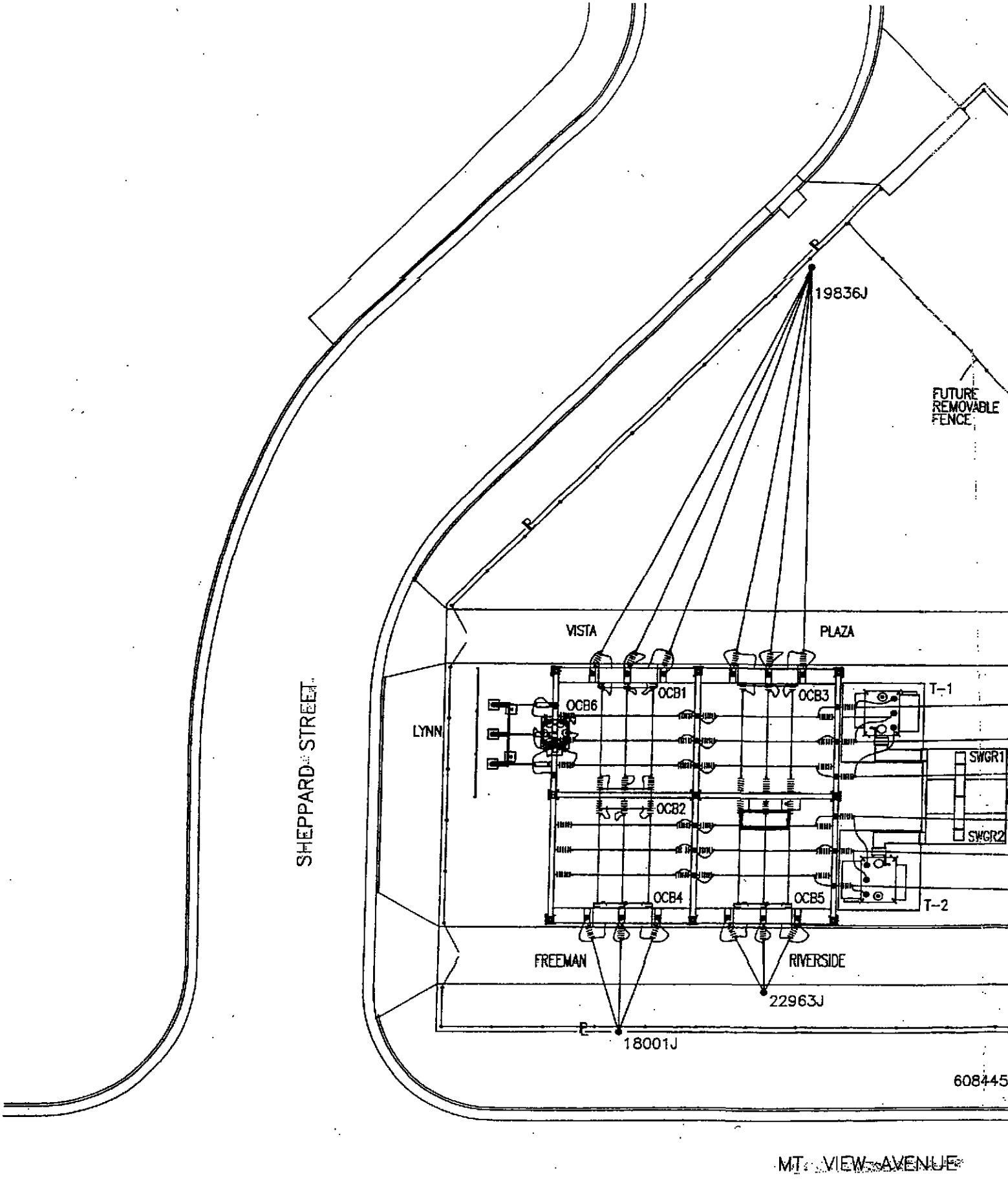
TRW/RJJ:sra

Enclosures:
- Appendix "A" - Geotechnical Maps (2)
- Appendix "B" - Exploratory Boring Logs (2)
- Appendix "C" - Laboratory Test Data (5)

Distribution: Burns & McDonnell Engineering Company, Inc. (6)

APPENDIX "A"

GEOTECHNICAL MAPS


19836J
FUTURE REMOVABLE FENCE
VISTA
PLAZA
SHEPPARD STREET
LYNN
OCB6
OCB1
OCB3
T-1
SWGR1
OCB2
SWGR2
OCB4
OCB5
T-2
FREEMAN
RIVERSIDE
22963J
18001J
608445
MT. VIEW AVENUE

APPENDIX "B"

EXPLORATORY BORING LOGS

KEY TO LOGS

LEGEND OF LAB/FIELD TESTS:

Bulk	Indicates Disturbed or Bulk Sample
Cor.	Indicates Corrosivity Testing
DS	Direct Shear Test (ASMT D 3080)
MDC	Maximum Density Optimum Moisture Determination (ASTM D 1557)
Ring	Indicates Undisturbed Ring Sample. Undisturbed Ring Samples are obtained with a "California Sampler" (3.25" O.D. and 2.42" I.D.) driven with a 140-pound weight falling 30 inches. The blows per foot are converted to equivalent SPT-N_{60} values using a factor of 0.6.
SA	Sieve Analysis (ASTM C 136)

ENGINEERING PROPERTIES FROM SPT BLOWS

Relationship of Penetration Resistance to Relative Density for Cohesionless Soils*
(After Mitchell and Katti, 1981)

Number of SPT Blows (N_{60})	Descriptive Relative Density	Approximate Relative Density (%)
<4	Very Loose	0-15
4-10	Loose	15-35
10-30	Medium Dense	35-65
30-50	Dense	65-85
>50	Very Dense	85-100

* At an effective overburden pressure of 1 ton per square foot (100 kPa)

Approximate Values of Undrained Shear Strength for Cohesive Soils
(Terzaghi and Peck, 1967)

Number of SPT Blows (N_{60})	Soil Consistency	Approximate Undrained Shear Strength (psf)
<2	Very Soft	Less Than 250
2-4	Soft	250-500
4-8	Medium Stiff	500-1000
8-15	Stiff	1000-2000
15-30	Very Stiff	2000-4000
>30	Hard	More Than 4000

SOIL CLASSIFICATION CHART

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

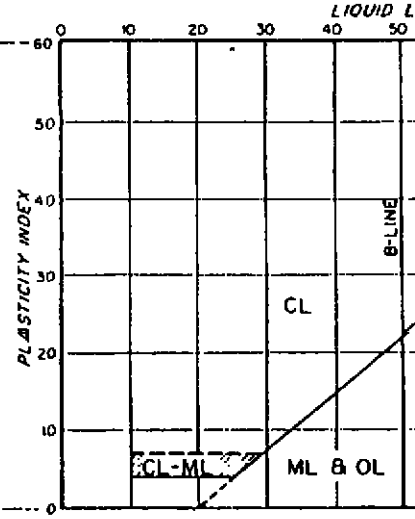
FOR LABORATORY CLASSIFICATION OF FINE-GRAINED SOILS

GRADATIO

MATERIAL SIZE	LOWER L (MILLIMETERS)	Si
SAND		
FINE	.074	
MEDIUM	042	
COARSE	200	
GRAVEL		
FINE	4.76	
COARSE	191	
COBBLES	76.2	
BOULDERS	304.8	

†US STANDARD • CLEAR SQU

PLASTICIT



UNIFIED SOIL CLASSI

EXPLORATORY BORING NO. 1

Date Drilled: 7/25/03 | Client: Burns & McDonnell Engineering Company, Inc.

Equipment: CME 55 Drill Rig | Driving Weight / Drop: 140 lb/30 in

Surface Elevation(ft): N/A | Logged by: D.M. | Measured Depth to Water(ft): N/A

DEPTH (ft)	GRAPHIC LOG	VISUAL CLASSIFICATION	REMARKS	SAMPLES: DRIVE	SAMPLES: BULK	BLOWS (Raw)	FIELD MOISTURE (%)	DRY UNIT WT. (pcf)	LAB/FIELD TESTS
		(SM) Silty Sand, fine with medium and calcium carbonate stringers, brown	Native						Cor., MDC, SA
				X		12 14 15	5.5	123	Ring, DS
5				X		7 11 20	17.8		Ring, SA SA
		(ML) Sandy Silt, fine with calcium carbonate, light gray		X		19 35 50/5.5"			Ring
		(SM) Silty Sand, fine with calcium carbonate, gray brown					11.8		
10				X		5 7 13	12.2	117	Ring
		(ML) Sandy Silt, fine with calcium carbonate, light gray							
15				X		8 10 14			Ring
20				X		5 6 12			Ring
		(SP) Sand, fine, light gray					21.7		
25				X		7 10 29	18.3	107	Ring
		END OF BORING NO BEDROCK NO REFUSAL NO FILL NO CAVING NO FREE GROUNDWATER							
30									

BORING LOG - RAW BLOWS 03702-3.GPJ CHJ.GDT 8/4/03

WEST LOOP FIBER OPTIC DESIGN
MOUNTAIN VIEW SUBSTATION

Job No. 03702-3

Enclosure B-1

EXPLORATORY BORING NO. 2

Date Drilled: 7/25/03 | Client: Burns & McDonnell Engineering Company, Inc.

Equipment: CME 55 Drill Rig | Driving Weight / Drop: 140 lb/30 in

Surface Elevation(ft): N/A | Logged by: D.M. | Measured Depth to Water(ft): N/A

DEPTH (ft)	GRAPHIC LOG	VISUAL CLASSIFICATION	REMARKS	SAMPLES DRIVE	SAMPLES BULK	BLOWS (Raw)	FIELD MOISTURE (%)	DRY UNIT WT. (pcf)	LAB/FIELD TESTS
		(SM) Silty Sand, fine with medium and calcium carbonate stringers, brown	Native						MDC, SA
				X		5 13 15	5.4	112	Ring, DS
				X		10 10 10			Ring, SA Cor.
5		(SM) Silty Sand, fine to medium with coarse and calcium carbonate stringers, brown							
				X		10 17 21			Ring
		(SW) Sand, fine to coarse with gravel to 3/8", gray brown					1.3		
10				X		7 15 20	3.2	116	Ring
15				X		10 16 23	1.4	115	Ring
20				X		10 22 25	1.2	112	Ring
		(SM) Silty Sand, fine with medium to coarse, gray brown					6.8		
25				X		15 17 37	4.6	118	Ring
		(SP) Sand, fine, gray brown							
		END OF BORING							
		NO BEDROCK NO REFUSAL NO FILL NO CAVING NO FREE GROUNDWATER							
30									

BORING LOG - RAW BLOWS 03702-3.GPJ CHJ.GDT 8/4/03

C•H•J•

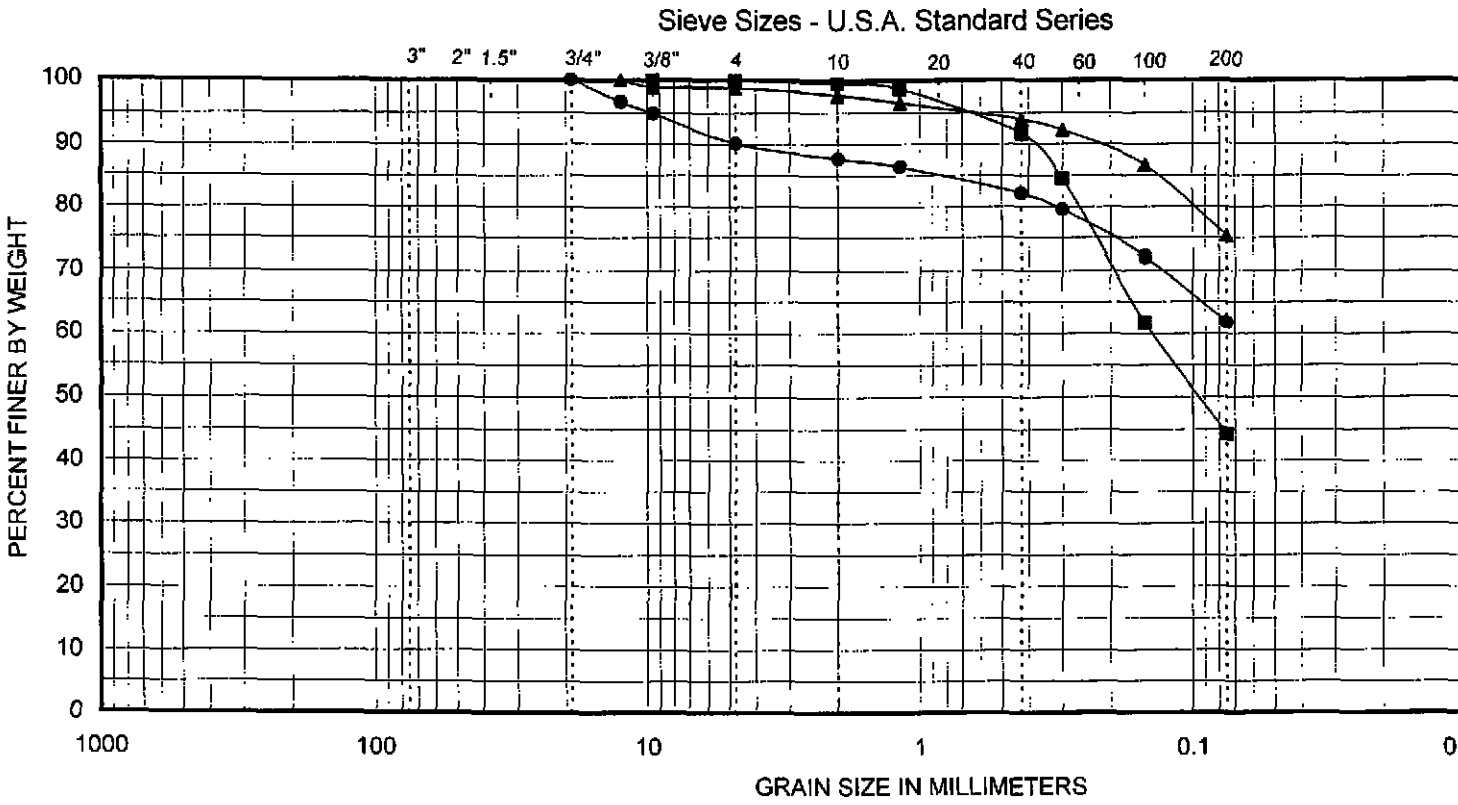
WEST LOOP FIBER OPTIC DESIGN
PLAZA SUBSTATION

Job No. 03702-3

Enclosure B-2

APPENDIX "C"

LABORATORY TEST DATA



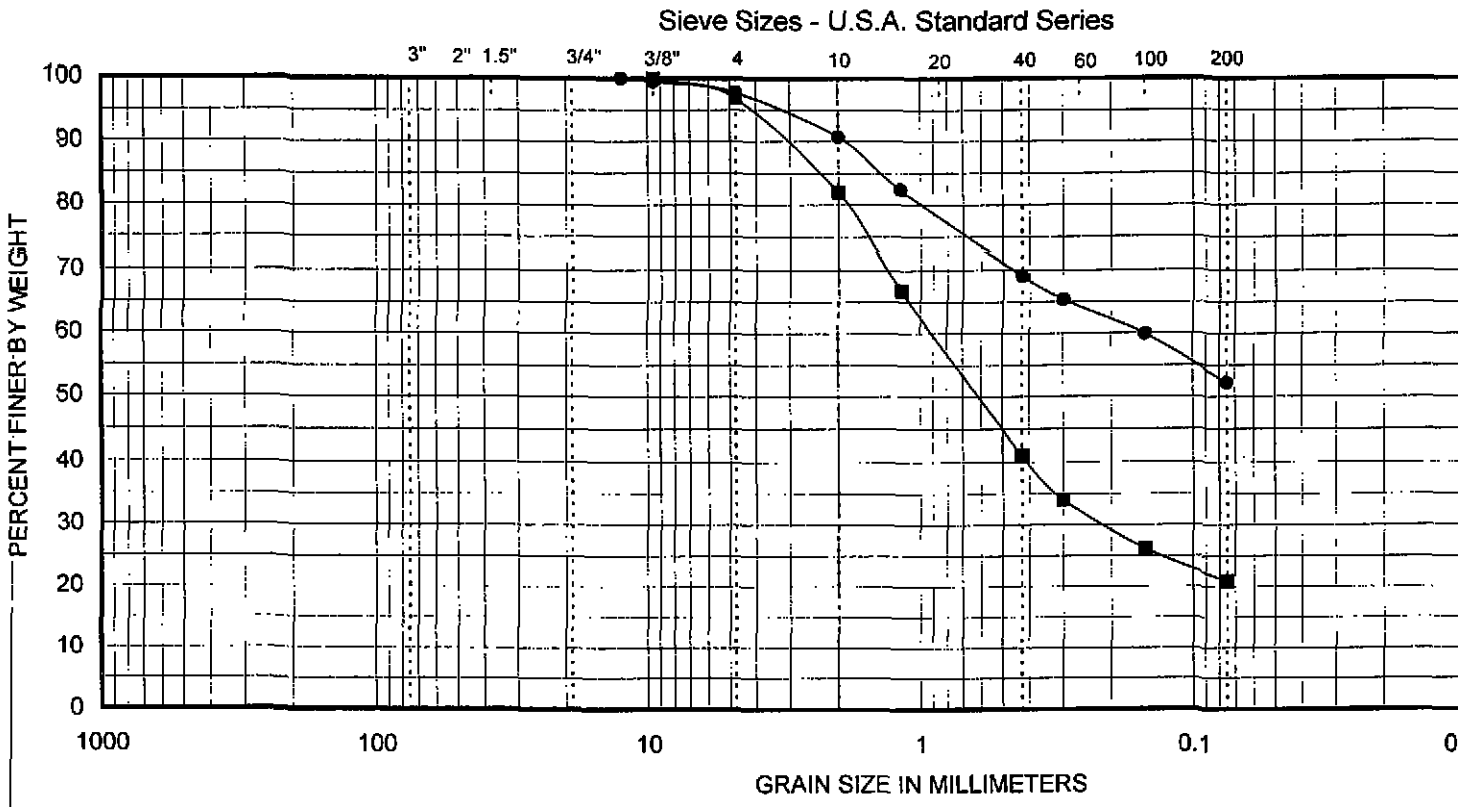
Cobbles & Boulders	Gravel		Sand			Si
	Coarse	Fine	Coarse	Medium	Fine	

Symbol	Boring No.	Depth (ft)	Classification	D_{10} (mm)	D_{30} (mm)	D_{50} (mm)	D_6
●	1	0					
■	1	5.5				0.094	
▲	1	6					

C • M • J • INCORPORATED

GRADATION CURVES

Project:	West Loop Fiber Opti
Location:	Mtn. View Substation
Job Number:	03702-3



Cobbles & Boulders	Gravel		Sand			Si
	Coarse	Fine	Coarse	Medium	Fine	

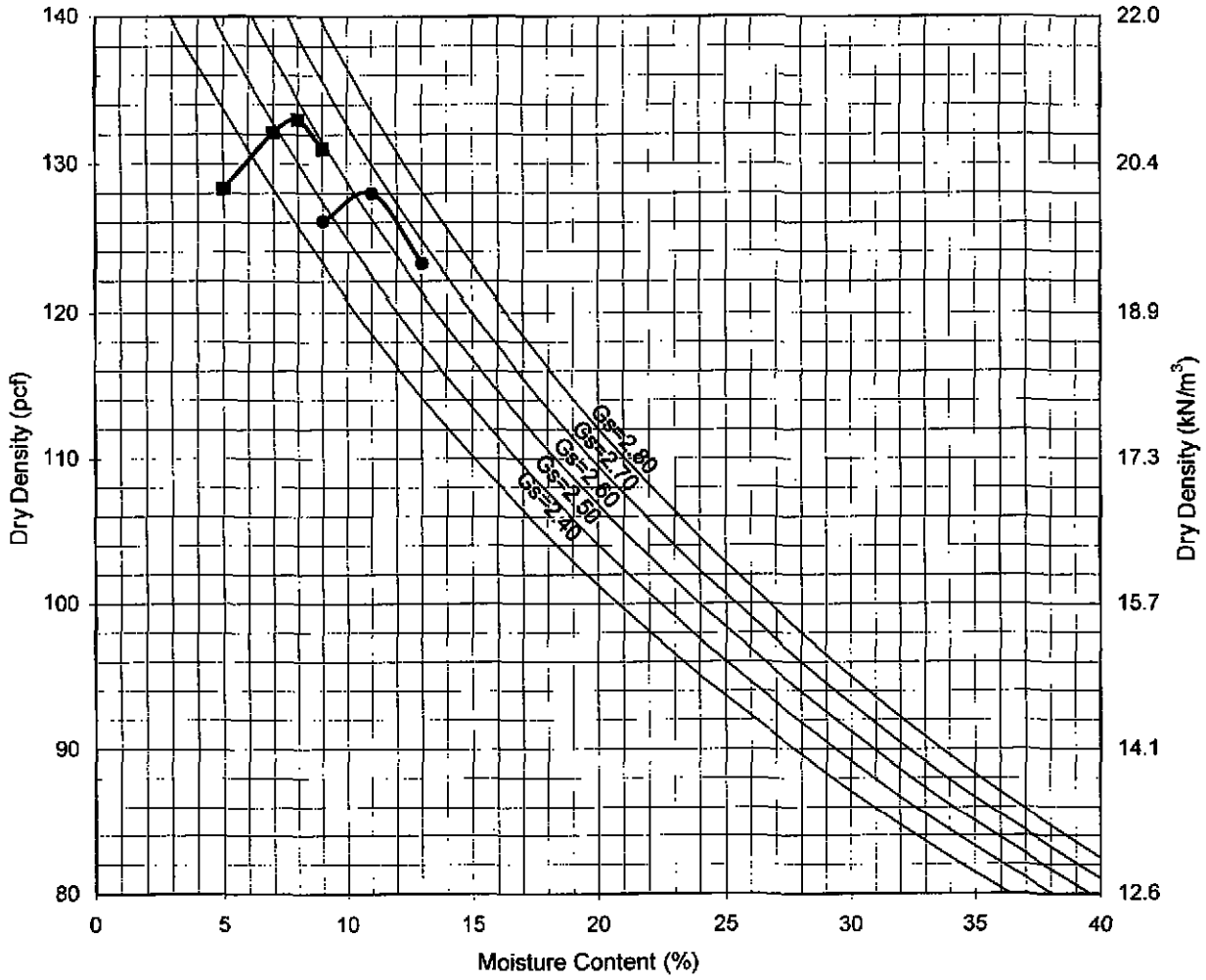
Symbol	Boring No.	Depth (ft)	Classification	D_{10} (mm)	D_{30} (mm)	D_{50} (mm)	D_6
●	2	0					
■	2	3.5			0.211	0.608	

C • M • J • INCORPORATED

GRADATION CURVES

Project:	West Loop Fiber Opt
Location:	Plaza Substation; Riv
Job Number:	03702-3

MOISTURE DENSITY CURVES

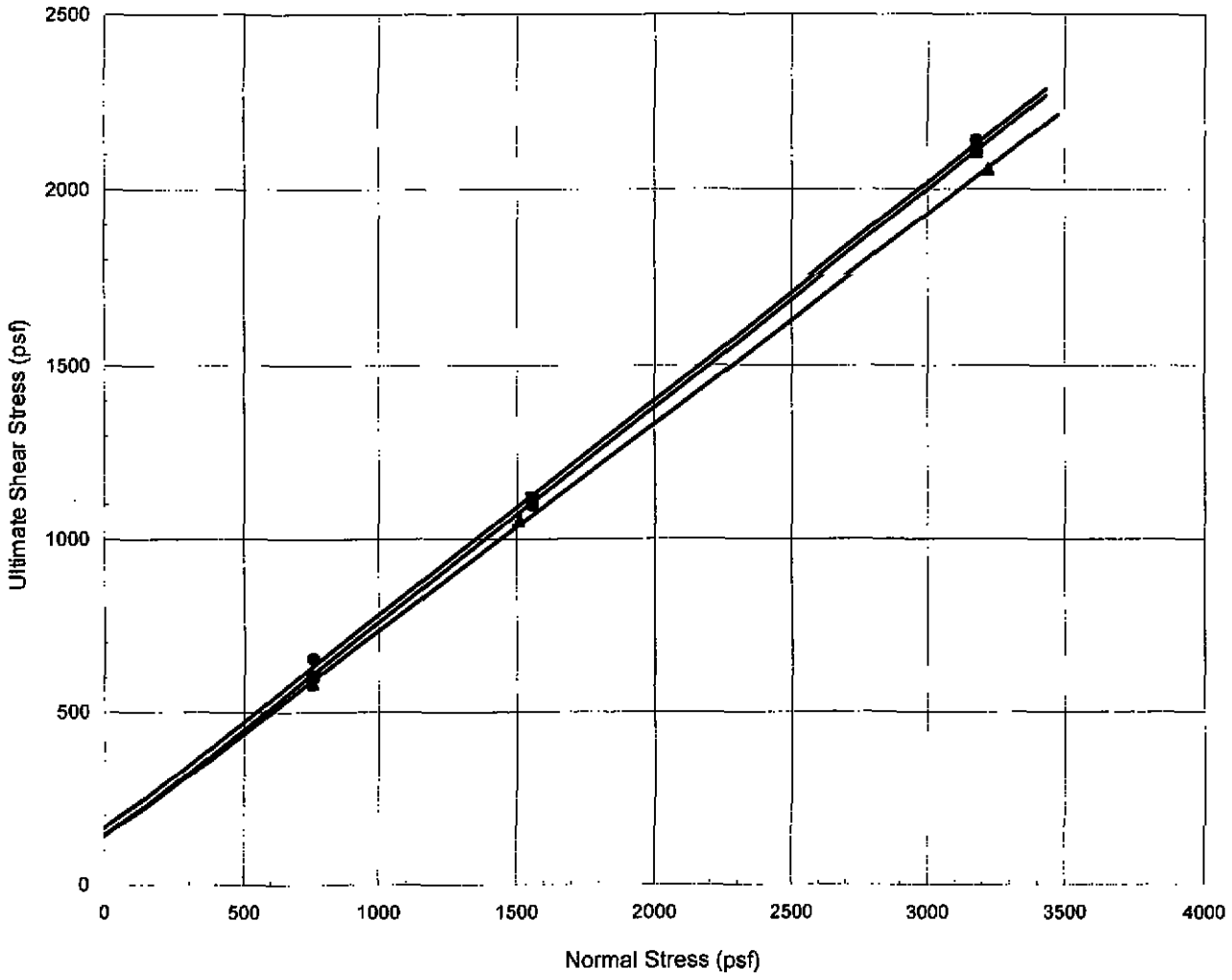


Boring No.		Depth(ft)	Site	γ_{max} (pcf)	w_{opt} (%)
•	1	0	Mountain View Substation	128.0	11.0
■	2	0	Plaza Substation	133.0	8.0

MOISTURE DENSITY CURVE (MDC) ASTM D 1557			
Project:	West Loop Fiber Optic Design (No 33691)		
Location:	City of Riverside, CA		
Job No.:	03702-3	Enclosure:	C-3

C • M • J • INCORPORATED

Direct Shear Test



Boring No.		Depth (ft)	Site / Sample Type	γ_d (pcf)	MC(%)	C (psf)	φ(°)
●	1	2.0	Mountain View Substation / Undisturbed, Saturated	123	5.5	164	32
■	2	1.5	Plaza Substation / Undisturbed, Saturated	112	5.4	141	32
▲	1	5.5	Mountain View Substation / Undist, Inundated /130 pcf total			139	31

DIRECT SHEAR TEST (ASTM D 3080)			
Project:	West Loop Fiber Optic Design (No 33691)		
Location:	City of Riverside, CA		
Job No.:	03702-3	Enclosure:	C-4

C • M • J • INCORPORATED

M. J. Schiff & Associates, Inc.

Consulting Corrosion Engineers - Since 1959
431 W. Baseline Road
Claremont, CA 91711

Phone: (909) 626-0967 Fax: (909) 626-3316
E-mail lab@mjschiff.com
website: mjschiff.com

Table 1 - Laboratory Tests on Soil Samples

Burns & McDonnell
Your #03702-3, MJS&A #03-0895LAB
29-Jul-03

Sample ID			Mtn. View 1A B1 @ 0'	Plaza 2B B2 @ 6'
Resistivity		**Units**		
as-received		ohm-cm	13,000	25,000
saturated		ohm-cm	1,200	3,400
pH			7.5	7.9
Electrical Conductivity		mS/cm	0.23	0.11
Chemical Analyses				
Cations				
calcium	Ca^{2+}	mg/kg	56	40
magnesium	Mg^{2+}	mg/kg	ND	10
sodium	Na^{1+}	mg/kg	76	22
Anions				
carbonate	CO_3^{2-}	mg/kg	ND	6
bicarbonate	HCO_3^{1-}	mg/kg	232	143
chloride	Cl^{1-}	mg/kg	30	15
sulfate	SO_4^{2-}	mg/kg	70	37
Other Tests				
ammonium	NH_4^{1+}	mg/kg	na	na
nitrate	NO_3^{1-}	mg/kg	na	na
sulfide	S^{2-}	qual	na	na
Redox		mv	na	na

Electrical conductivity in millisiemens/cm and chemical analysis were made on a 1:5 soil-to-water extract.
mg/kg = milligrams per kilogram (parts per million) of dry soil.
Redox = oxidation-reduction potential in millivolts
ND = not detected
na = not analyzed

ENCLOSURE "C-5"
JOB NO. 03702-3

Appendix F

Treatment Control BMP Sizing Calculations and Design Details

At this point, we're anticipating a vegetated swale (3' wide, 6" deep) to adequately convey runoff flow.

Appendix G

Agreements – CC&Rs, Covenant and Agreements and/or Other Mechanisms for ensuring ongoing Operation, Maintenance, Funding and Transfer of Requirements for this project-specific WQMP

Appendix H

Phase 1 Environmental Site Assessment – Summary of Site Remediation Conducted and Use Restrictions

NOT CONDUCTED

Appendix F

Noise Technical Memorandum

ENTECH CONSULTING GROUP
PLANNING • ENVIRONMENTAL • CONSTRUCTION MANAGEMENT

TECHNICAL MEMORANDUM

DATE: July 13, 2013

PREPARED FOR: City of Riverside

PREPARED BY: Michelle A. Jones, Principal, Entech Consulting Group

SUBJECT: Noise Assessment – Magnolia-Plaza Reliability Project

Introduction

The City of Riverside Public Utilities (RPU) is proposing the Magnolia Plaza Reliability Project (proposed project). This proposed project consists of expanding the existing Plaza Substation, located between Magnolia Avenue and Elizabeth Street, to support the conversion from 4kV distribution to 12 kV for improved efficiency and to modernize and replace the existing obsolete equipment. Upon project completion of the proposed project, the conversion to 12 kV distribution will facilitate the retirement and removal of the Magnolia Substation, located directly east of State Route 91 and south of Central Avenue and BNSF railroad tracks to the east.

Construction of the proposed project will be broken down into the following five phases. Phase 1, referred to as the Plaza T5 Addition, will involve the upgrade of equipment to complete the 4kV to 12 kV conversion, including but not limited to transformer additions with associated circuit breakers, capacitor bank, relay and control panels and a switchgear building. Phases 2 through 4 will provide for the replacement of distribution feeders and transmission work to support transferring all electrical services from the existing Magnolia Substation to the expanded Plaza Substation. Phase 5 will consist of the demolition of the Magnolia Substation after all power is transferred to the new Plaza T5 Addition.

This technical memorandum will assess the potential noise impacts the proposed project may have on the surrounding environment. The assessment will be performed pursuant to the requirement of the California Environmental Quality Act (CEQA).

Thresholds of Significance

A noise assessment was performed to identify potential impacts for the proposed project utilizing the checklist provided in Appendix G of the CEQA Guidelines. A noise impact would have a significant adverse effect on noise sensitive land uses if any of the following would occur as a result of a project-related component.

a) *If the proposed project would expose persons to noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies.*

b) *If the proposed project would expose persons to excessive ground borne vibration or ground borne noise levels.*

c) *If the proposed project would exposure persons to, or generation of, excessive ground borne vibration or ground borne noise levels.*

d) *If the proposed project would cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project.*

e) *If the proposed project would cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the Project.*

f) For a proposed 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, if the proposed project would expose people residing or working in the project area to excessive noise levels.

g) For a proposed project within the vicinity of a private airstrip, if the proposed project would expose people residing or working in the project area to excessive noise levels.

The noise assessment evaluated the operational and construction noise impacts from the proposed project to determine whether significant adverse effects would occur on noise sensitive land uses in the project area. The conclusions of the noise assessment are presented below for each threshold criteria.

Would the proposed project expose persons to noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact with Mitigation. The Plaza Substation is located approximately 200 feet from a Medium Density Residential zone and is located on land zoned for Mixed Use-Neighborhood. This proposed project would affect noise sensitive land uses in this area and is subject to the requirements of the City of Riverside Municipal Code. Section 7.25.010 of the City's Municipal Code establishes standards to control noise within the City. In particular, this section limits exterior noise levels for residential uses to 45 decibels (dBA) during night (10 p.m. to 7 a.m.) and 55 dBA during the day (7 a.m. to 10 p.m.). In addition, Section 7.35.020(f) of the City's Municipal Code exempts Public Health, Welfare and Safety activities that are associated with construction maintenance and repair operations conducted by public agencies and/or utility companies or their contractors which are deemed necessary to serve the best interests of the public including but not limited to restoring electrical service. This proposed project falls under this exemption.

During construction of the proposed project, temporary increase to ambient noise levels may occur. Noise levels may increase due to the operation of construction equipment and increased traffic volumes from workers commuting to and from the project sites and delivery of construction material. The City does not provide specific noise control standards during construction hours but limits the hours that construction activities may occur. According to the City's Section 7.35.010 (General Noise Regulations), temporary construction activities are allowed provided they do not take place between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between 5 p.m. on Fridays and 8 a.m. on Saturdays, after 5 pm on Saturdays or at any time on Sunday or federal holidays. As noted above, Section 7.35.020(f) may exempt the proposed project from this noise restriction, but adhering to the above listed limitations on working hours, which are standard conditions for typical projects in the City, the proposed project would avoid creating offensive noise during nighttime hours and/or when noise standards are more stringent.

However, despite the restrictions on operating hours, construction noise levels may exceed the City's exterior noise standards. To decrease construction noise levels experienced at noise sensitive land uses the following mitigation measures will be implemented:

Mitigation Measures:

NOI-1: During project construction, equipment will be maintained in proper operating condition and equipped with appropriate mufflers.

NOI-2: During project construction, staging areas will be located as far as practical from existing residential dwellings and other noise sensitive land uses.

Implementation of these mitigation measures will ensure that the noise levels experienced at nearby noise sensitive land uses does not exceed the City's established limits and will not cause a significant noise impact.

Would the proposed project expose persons to excessive ground borne vibration or ground borne noise levels?

Less than Significant Impact. During the operation of the proposed project, there are no activities that would occur to cause ground borne vibration. However, construction activities associated with grading, excavation, trenching, and compaction of the substrate soils could potentially cause ground borne vibration impacts to nearby sensitive receivers, but these activities would be temporary and relatively mild in nature. Due to the limited construction hours and the limited construction duration of the proposed project construction impacts would be less than significant.

Would the proposed project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project?

Less than Significant Impact. Existing noise levels experienced in the project area are influenced by noise generated by adjacent railroad tracks. According to the City of Riverside's Noise Element section of the 2025 General Plan ambient noise levels (Community Noise Equivalent Levels [CNEL]) in areas adjacent railroad tracks CNEL values are naturally high, averaging 70 dB CNEL. CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10 dB penalty applied to A-weighted sound levels occurring during the nighttime hours between 10:00 p.m. and 7:00 a.m., and a 5 dB penalty applied to the A-weighted sound levels occurring during evening hours between 7:00 p.m. and 10:00 p.m. CNEL is used to establish ambient noise thresholds within communities. The City's 2025 General Plan, has established acceptable thresholds for noise in a residential area of no more than 45 CNEL at night and 55 CNEL in the daytime. However, the proposed project is located next to the BNSF tracks and is allowed a threshold of 70 CNEL (Figure N-7 of the City's 2025 General Plan).

According to Riverside Public Utilities, there is no operational noise dB rating for the proposed project substation. Most of the constant source of noise will be from the new transformers installed as part of the Plaza T5 Substation Addition. The level of noise generated from the new transformers will be similar to the anticipated 60 dB rating reference in the Casa Blanca Power Project Initial Study. The dB level associated with the new transformers will be reduced by distance and topography. It is anticipated that the operation of the upgrades made to the Plaza T5 Substation would not create any noticeable exposure exceeding the existing 70 CNEL at nearby single-family residences because older model equipment will be replaced with newer and quieter equipment which would result in a negligible change in ambient noise levels. Furthermore, the substation will be built and surrounded by a six-foot or higher block wall, which will further reduce ambient noise levels. In addition, the demolition of the existing Magnolia Substation will remove all equipment located on site, allowing for further reductions in ambient noise levels experienced at noise sensitive land uses. Therefore, the impacts to ambient noise levels will be less than significant.

Would the project cause substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact. As stated above, the proposed Project would not create a substantial temporary or periodic increase in ambient noise levels within the proposed project area during construction with the implementation of mitigation measures. In addition, compliance with the City's Municipal Code to limit construction hours would reduce project impacts to a less than significant level.

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?

No Impact. The proposed Project is located within the Riverside County Airport Land Use Plan. According to the Riverside County Airport Land Use Plan Background Data for the Riverside Municipal Airport, 2005, the project site is located outside of any noise contours. Therefore, the proposed Project will have no significant impact.

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

No Impact. There are no private airports or helipads in the vicinity of the proposed Project.

Therefore, the proposed Project will have no impact in this regard.

References

City of Riverside Municipal Code. *Chapter 7.35: General Noise Regulations.* 1996

City of Riverside Municipal Code. *Chapter 7.25: Nuisance Exterior Sound Level Limits.* 1996

City of Riverside. *2025 General Plan: Noise Element.* November 2007.

City of Riverside. *2025 General Plan: Land Use and Urban Design Element.* November 2007.

Michael Brandman Associates. *Initial Study and Mitigated Negative Declaration Casa Blanca Power Project, City of Riverside, CA.* August 10, 2010.