Appendix E:
Phase I Environmental Site Assessment

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PHASE I
ENVIRONMENTAL SITE ASSESSMENT
OF
1444 WILLOW AVENUE
APN 406-522-001 & 406-522-004
CONTRA COSTA COUNTY
IN
HERCULES, CALIFORNIA

August 8, 2016

Prepared for:

Claremont Homes, Inc.
380 Civic Drive Suite 200C
Pleasant Hill, CA 94523

Prepared by:

20 Years
1995--2015

environmental service
by Papineau

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1.0 EXECUTIVE SUMMARY

This report presents the results of a Phase I Environmental Site Assessment of approximately 7 acres located at 1444 Willow Avenue in Hercules, Contra Costa County, California. The Phase I Environmental Site Assessment was conducted by Environmental Service during July 2016. The work was conducted under the authorization of Claremont Homes, Inc., in general accordance with the proposal dated July12, 2016, and authorization by Mr. Michael W. Conley.

Property Description The Property is located at 1444 Willow Avenue, along the south side of Willow Avenue and north side of the Atchison, Topeka & Santa Fe (AT&SF) Railroad, in Hercules, California. Assessor Parcel Numbers (APN) assigned to the Property by Contra Costa County are APN 406-522-001 and -004. See Figures 1,2 and 3.

The Property consists of land without improvements. The parcels are irregular in shape, with frontage on Willow Avenue and the Atchison Topeka & Santa Fe (AT&SF) Railroad right-of-way. APN 406-522-001 also has frontage on Palm Avenue near the railroad bridge over Palm Avenue. The General Plan land use designation and zoning of the Property is General Commercial.[1]

Reconnaissance and Neighborhood At the time of the reconnaissance on July 27, 2016, the Property was observed to be located in a General Commercial strip bounded by State Highway 4 on the north and the Railroad and Sycamore Avenue on the south. Outside this strip is single-family housing north of Highway 4 and south of Sycamore Avenue. The Property is located along the south side of Willow Avenue and is bounded on three sides by surface or rail including Willow Avenue, Palm Avenue, and AT&SF Railroad.

The nearest service stations are Shell (3900 San Pablo Avenue) and Union 76 (828 Willow Avenue). These service stations are located west-southwest and northwest of the Property. Neither is listed as a current or past Leaking Underground Storage Tank (LUST) site. The nearest past closed or current active LUST site is Caltrans Maintenance Facility (1369 Willow Avenue, also known as 1369 Bayberry Avenue). The Caltrans Maintenance facility had in the past one (1) 7,500-gallon gasoline UST and one (1) 2,000-gallon diesel UST. These were both removed in 1997 and were not replaced with underground storage tanks. The LUST case for Caltrans Maintenance Facility was closed in 2002.

Geology/Hydrology—Soil at the nearby Caltrans Maintenance Facility was logged primarily as silty clay with interbedded lenses of silty fine sand from 10-15 feet below grade surface (fbgs) to the total 25 foot depth explored. Figure 5 presents a detail of a USGS geologic map, which shows the Property is underlain by Briones Formation Hercules Member (Tbh) gray shale and siltstone, except for the westernmost tip of the Property. The westernmost tip, which approaches the former streambed of the East Branch of Refugio Creek, is mapped as Quaternary surficial deposits (Qu).

The shallow groundwater surface is reported to slope down toward the northwest at the Caltrans Maintenance Facility where three (3) monitoring wells were installed and monitored during 2000–2001. The reported depth to groundwater was 2.31 feet below top

[1] City of Hercules, General Plan & Zoning map. http://www.ci.hercules.ca.us/Modules/ShowDocument.aspx?documentid=157

of well casing (btc) to 5.56 feet btc. Gasoline-related pollution released from leaking underground storage tank systems at the Caltrans Maintenance Facility, therefore, would tend to move northwest away from the Property.

Historical Uses Based upon review of historical topographic maps and aerial photographic images, the Property and no part the Property were used for an orchard during 1916-present. There have been no structural improvements on the Property during the period of aerial photographic image research (1938–present). See Appendices C and D.

Utilities Sanitary wastewater is disposed by connection to the municipal sanitary system for treatment at a public-owned treatment works (POTW) operated by the Joint Powers Authority for the City of Hercules and City of Pinole. Pinole/Hercules POTW is located at the foot of Tennent Avenue in the City of Pinole. It was originally built in 1955 and later was expaneded and modified meet growing service needs and more stringent treatment standards.[2]

Solid waste is collected and disposed by Richmond Sanitary Service. Drinking water is provided by EBMUD and is conveyed through the City of Hercules municipal water delivery system.

Sites Adjoining the Property The Property is adjoined on the north by Valley Bible Church, Daycare and Preschool. The Property is adjoined on the east by undeveloped raw land (APN 406-522-005) and Highway 4. The Property is adjoined on the west by Palm Avenue, the Carone Brothers Inc. lot (1350 Willow Avenue) and Caltrans Maintenance Facility (1369 Willow Avenue). South of the Property is the AT&SF Railroad and residential subdivisions located generally south of Sycamore Avenue. See also Section 3.4 for details.

Service stations and dry cleaners do not adjoin the Property. The nearest past or current service station, Union 76 (also, formerly known as BP/Circle K, TOSCO or Conoco Phillips), is located at least 3,500 feet north-northwest of the Property. See Figure 2. The nearest dry cleaners handling dry cleaning fluid called PERC, or formerly handling PERC, are Willow Cleaners (844 Willow Avenue #A5), Hercules Cleaners (1581 Sycamore Avenue #7), Park Lane Cleaners (1572 Sycamore Avenue #C), and Creekside Cleaners (1511 Sycamore Avenue #G). None of these current or past dry cleaning businesses adjoins the Property or is located close enough to pose an obvious likelihood or an apparent risk of soil vapor intrusion for the owner of the Property.

National Priority List (NPL) and Other Selected Federal Data Bases No federal Superfund site, proposed or de-listed Superfund site, U.S. Brownfields site, Resource Conservation and Recovery Act (RCRA) Corrective Actions (CORRACTS) or Treatment-Storage-Disposal (TSD) site, Comprehensive Environmental Response and Compensation Liability Act (CERCLA) or CERC-NFRAP site was reported within the ASTM standard distances from the Property. The above list is incomplete, and search results for additional federal data bases are presented in Section 5.2 and Appendix B.

Selected State of California Public Agency Data Bases The State of California equivalent programs are administered by the California Environmental Protection Agency (Cal/EPA).

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2 http://www.ci.pinole.ca.us/publicworks/treat_plant.html

According to NETR's search of the Cal/EPA data bases, California-equivalent listed sites are not located within the ASTM standard distances from the Property. Several leaking underground storage tank (LUST) sites were identified, including two LUST sites located within 0.25 mile southeast of the Property. The two nearest LUST and/or SLIC sites listed for releases of petroleum products are:

- Carone Bros. Inc. (1350 Bayberry Way, also known as 1350 Willow Avenue), 750 feet (0.14 mile) west of the Property, closed case
- Caltrans Maintenance Facility (1369 Bayberry Way, also known as 1369 Willow Avenue), 500 feet (0.10 mile) west of the Property, closed case

Hercules Inc. or Hercules Powder Company (Sycamore and San Pablo Avenue) is a California Hazardous Waste Site or Cortese-listed site located 0.79 mile west of the Property. The site is outside the ASTM E1527-13 search radius of 0.5 mile and does not otherwise pose an obvious likelihood or an apparent risjk of environmental impairment for the owner of the Property.

Search results for State of California public agency data bases are presented in Section 5.2 and Appendix B.

Conclusions and Recommendations Based on the information obtained during this investigation by the environmental assessor, professional experience, and current regulatory guidelines, the following conclusions have been made:

- This assessment has revealed no historical evidence of structural improvements on the Property or use of the Property for surface impoundments of liquids, landfilling or other waste disposal.
- The Property has not been used for intensive agriculture (*e.g.*, row crops, orchards, vineyards, greenhouses, during 1938-present and such uses are not likely during 1916-present.
- Off-site releases of gasoline and diesel fuel from past leaking underground storage tanks are summatrized in Sections 5.3 and are classified in Section 6.3 as Historic RECs (HRECs) because they have been resolved without agency-imposed requirements for further actions. The assessor considered the available information and in consideration of the facts classified the proximate releases of gasoline and diesel fuel as HRECs which do not pose an obvious likelihood or an apparent risk of environmental impairment to the soil, soil vapor, or ground water of the Property.
- Natural gas transmission and petroleum multi-products pipelines are located off site at a distance 240–350 feet south of the Property. These pipelines do not have generally recognized notoriety as pollution sources in the community (Zilm, 2016).

Business Environmental Risks Business environmental risks are out-of-scope (ASTM E 1527-13) items. Examples of business environmental risks include asbestos-containing building materials, naturally-occurring asbestos, indoor air quality, radon, lead-based paint, and lead in drinking water. Business environmental risks, where present, can potentially increase the cost of development or use of Property. Business environmental risks were not identified in the research performed for this Phase I environmental site assessment.

Potential geotechnical and flooding hazards are separate matters, also non-scope items under ASTM E 1527-13, which are acknowledged in Section 3.4. Assessment of natural hazards (*e.g.*, flooding hazard, earth-shaking hazard, liquefaction potential and landslides) are outside the scope of ASTM E 1527-13. Information about non-scope items where encountered during the Phase I research has been reported to alert the Report User; however, the Phase I report itself does not constitute a geotechnical assessment or technical evaluation of other natural hazards.

Subsequent Phase II Investigation Phase I research has not identified present or imminent threatened releases of hazardous chemicals or petroleum products either on the Property or on sites adjoining the Property. Phase I research has identified past fuel releases on the adjoining Caltrans Maintenance Facility and Carone Brothers lot. In view of the available information and classification of the past fuel releases on the adjoining Caltrans Maintenance Facility and Carone Brothers lot as HRECs, subsequent Phase II investigation is not recommended.

In specific regard to minor dumping during 2000–2004, which is evident in aerial photographic images for 2004 and 2008 but not before or after, the small stockpiles were not observed during the reconnaissance in July 2016. The dumping was short in duration, without sign of increasing footprint after April 2004. Stockpiles are tentatively interpreted to have been dry inert materials such as concrete, sand or rock. Subsequent Phase II investigation, therefore, is not recommended.

Limiting Conditions–The Property had not been disked or mowed at the time of reconnaissance on July 27, 2016. This made viewing all of the surface of the Property impractical and may have obscured surface features such as minor stockpiles, surficial scarps, moist soil or ponded water.

Certification This Phase I Environmental Site Assessment was performed by an environmental assessor, Marc Papineau, in general conformance with the scope and limitations of ASTM Practice E 1527-13, for the Property designated as APN 406-522-001 and -004 and located at 1444 Willow Avenue, Hercules, California. Any exceptions to, or deletions from, this practice are described in Section 2.2 of this report. Claremont Homes, Inc., its successors or assigns, can rely upon the information presented herein as factual, true and accurate, and in general accordance with the ASTM E 1527-13 Standard for Practice.

2.0 INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment for 7 acres total in two parcels, APN 406-522-001 and 004, located at 1444 Willow Avenue, in Hercules, California ("the Property"). Figures 1, 2 and 3 illustrate the layout of the Property and neighborhood.

The Phase I environmental site assessment was conducted by the environmental assessor during July 2016 in connection prospective acquisition of the Property by Claremont Homes, Inc. Environmental Service was retained by Claremont Homes, Inc., to conduct the Phase I Environmental Site Assessment in general accordance with the agreement and proposal dated July 12, 2016, and authorization by Mr. Michael W. Conley.

2.1 Purpose

The purpose of this Phase I Environmental Site Assessment is to provide an environmental assessment that meets ASTM Standards and which:

- Evaluates and describes the presence of any RECs in connection with the Property.
- Where RECs are assessed present, if reasonably possible, presents estimates for the cost of remedial actions to a prudent owner of the Property.
- If necessary, recommends the scope of any subsequent study to assess the existence of an actual release of any hazardous substance or petroleum product, or to estimate the cost of any needed remedial actions.

2.2 Definitions of Terms and Limitations

Definitions of Terms

Controlled REC—A Controlled REC (CREC) is an REC resulting from "*a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a NFA letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, AULs, institutional controls, or engineering controls).*" *CRECs are listed in the Findings Section of the Phase I ESA report, and as RECs in the Conclusions Section of the report.*

Data gap—A "data gap" means missing or unattainable information. See also "significant data gap."

***De minimis* conditions**—Hazardous substances or petroleum products may be present on a property without being an REC. If 1) the condition does not represent a threat to human health or the environment and if 2) the condition would not be subject to an enforcement action if brought to the attention of a regulatory agency, the condition is termed "de minimis" and is not an REC. For a condition to be classified as "de minimis" or "less-than-significant," the condition cannot represent a threat to either human health or the environment AND the condition would not be subject to an enforcement action if brought to the attention of a regulatory agency.

Environment—The environment can be viewed as the ground, groundwater, surface water, or soil vapor of a property. Under CERCLA, the term "environment" includes precisely a) navigable waters, the waters of the contiguous zone, and the ocean waters…and b) any other surface water, groundwater, drinking water supply, land surface or subsurface strata…"

Impairment—The words "impair" and "impairment" are used to mean the result of a release of a hazardous substance or petroleum product assessed to be a REC.

Hazardous substance—The term "hazardous substance" is used here in general accordance with its usage as defined in the following documents:

- Comprehensive Environmental Responsibility, Compensation, and Liability Act (CERCLA) of 1980, as amended; and
- Resource Conservation and Recovery Act (RCRA) of 1976, as amended.

The terms "hazardous substance," "hazardous material," and "hazardous waste" are used interchangeably in this report, and no legal distinction is implied among the terms as used herein.

Historical REC—An HREC is an REC resulting from "*a past release of any hazardous substances or petroleum products that has occurred in connection with a property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restrictions, AULs, institutional controls, or engineering controls).*" *Before calling a past release an HREC, the environmental assessor must determine whether the past release is an REC at the time the Phase I ESA is conducted (e.g., if there has been a change in the regulatory criteria). If the environmental assessor considers this past release to be an REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as an REC.*

Limiting condition—a constraint imposed by obstruction or barrier, ground cover, weather or access. Examples: Intervening buildings or walls might block the view of an adjoining auto repair shop. Pavement precludes viewing of surface soil. A box sump cover may preclude viewing of the inside of the box.

Migration—Migration, movement, or chemical trespass refers to the "*movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface*."

Recognized Environmental Condition (REC)—The term Recognized Environmental Condition (REC) is used to describe an environmental condition or impairment assessed to warrant further inquiry. This includes the interpreted "presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment."

Release—A "release" means "*any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discharging of barrels, containers, and other closed receptacles containing any hazardous substances or pollutant or contaminant*." Presence of hazardous substances at a property "due to any release to the environment" encompasses the potential scenario in

which an on-site or off-site release occurs and, if the release occurs off site, migration results in "chemical trespass" on the property.

Significant data gap—A significant data gap, as defined in §312.10 of the AAI final rule and §12.7 of ASTM E1527-13, is one which actually has the effect of limiting the assessor's ability to identify or evaluate RECs. A data gap is significant only if it may preclude identification of conditions indicative of a past release, a present release or imminent threatened release of hazardous substances, hazardous waste or petroleum products, or reduce the ability of the assessor to interpret the degree of risk. A Phase I environmental site assessment must identify and comment on significant data gaps.

Non-Scope Items and Limitations

Known or suspected RECs, CRECs, and HRECs are listed in Section 6.0, the findings of RECs. However, in Section 7.0, "Conclusions," known or suspected RECs and CRECs are the focus. HRECs are not a focus of Section 7.0 because HRECs warrant awareness by the Report User but normally would not warrant further investigation or a corrective action.

Certain information contained in this report may have been rightfully provided to the environmental assessor by third parties or other outside sources. The environmental assessor does not make any warranties or representations, whether expressed or implied, regarding the accuracy of such information, and shall not be held accountable or responsible in the event that any such inaccuracies are present.

Assessments of naturally-occurring radon; polychlorinated biphenyls (*e.g.*, in transformers, other electrical equipment, joint compound); asbestos and lead in building materials, and lead-based paint are not within the scope of ASTM E 1527-13 unless made so by agreement with the client for whom the Phase I report is prepared. The Property has had no apparent structures or past uses for intensive agriculture (*e.g.*, orchards, row crops, vineyards or greenhouses); therefore, past applications of lead arsenate, organo-chlorine pesticides or herbicides, organo-phosphate pesticides, or lead-based paint are unlikely.

Local and/or federal regulations and laws require pre-demolition surveys of structures by a qualified California Asbestos Consultant and certified Lead-Based Paint Inspector. This or any Phase I Environmental Site Assessment does not constitute an asbestos or lead-based paint survey and is insufficient for compliance with federal, state, or local regulations governing asbestos and lead during construction, demolition or removal operations. Radon survey; asbestos or lead inspection are non-scope items under ASTM E 1527-13 and were not specifically requested by the client.

Deletions and deviations from the ASTM Standard E 1527-13 standard practice:

The current or past owners of the Property was/were not contacted or had not responded to an environmental questionnaire at the time of publication of the Phase I report. Therefore, if the owner(s) hold personal knowledge relevant to the Phase I environmental site assessment, such information has not been disclosed in this Phase I report.

2.3 Methods and Limiting Conditions

The following readily available information resources were used during the course of this assessment.

- Personnel with technical knowledge of the Property or adjoining uses. The individuals interviewed, and the dates and type of communications are listed on the next page:
  - Mr. Michael W. Conley, July 2016, email communications;
  - Ms. Holly Smyth, City of Hercules Planning Director, (510) 245-6531, August 2016, telephone communication.

- A reconnaissance to observe the Property and neighborhood, and to look for evidence of current operations that use or may have used potentially hazardous materials or petroleum products. The reconnaissance was conducted by Marc Papineau on July 27, 2016.

- Review of historical records:
  - Federal/State/County/City information regarding hazardous waste compliance/violations
  - Aerial photographic images downloaded from USGS Earth Explorer or Contra Costa County CCMAP, or else viewed on-line at GoogleEarth
  - Historical topographic maps viewed on-line at http://sunsite.berkeley.edu/histopo/
  - City of Hercules Planning and Building information including current zoning, current land use designation, and specific plans if any apply

- Agency data bases
  - Federal lists regarding Superfund Sites and State-equivalent lists
  - State or County information regarding landfills
  - State/County/City information regarding underground storage tanks
  - Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)
  - Federal Resource Conservation and Recovery Act (RCRA) Facilities and Generators List
  - Federal Emergency Response Notification System (ERNS) List
  - CORTESE
  - Landfills, Toxic Pits, and Hazardous Waste Sites (Deed Restrictions)
  - GeoTracker database
  - RWQCB North Bay Toxics List (CA SLIC)
  - EnviroStor data base
  - DTSC Hazardous Waste Tracking System (HWTS)
  - Others not listed above but included in Appendix B or Section 5.2

Limiting Conditions–The Property had not been disked or mowed at the time of reconnaissance on July 27, 2016. This made viewing all of the surface of the Property impractical and may have obscured surface features such as minor stockpiles, surficial scarps, moist soil or ponded water.

3.0 PROPERTY DESCRIPTION

3.1 Location and Legal Description

The Property is located south of State Highway 4, between Willow Avenue and the Atchison Topeka & Santa Fe (AT&SF) Railroad, just east of Palm Avenue and the railroad bridge over Palm Avenue. The Property has approximately 800 feet of frontage along the south side of Willow Avenue.

The Contra Costa County Assessor's Office designates the Property as Assessor Parcel Numbers (APNs) 406-522-001 and 406-522-004 (Contra Costa County Assessor, 2016). The Property contains approximately 7 acres without improvements.

The Property's General Plan land use designation and zoning is General Commercial. The Property adjoins the western end of Hercules New Town Center (HNTC) but is not itself part of HNTC. Potentially applicable zoning overlay districts were checked with Planning Department staff, who confirmed that None of the following overlay districts apply to the Property:

Applicable? ○Yes ●No Scenic Road and Highway Overlay District
Applicable? ○Yes ●No Historic Overlay District
Applicable? ○Yes ●No Special Flood Hazard Overlay District
Applicable? ○Yes ●No Refugio Creek Overlay District
Applicable? ○Yes ●No School-Park Overlay District

According to the Chapter 8 of the Zoning Ordinance, the purposes of the commercial districts are varied, with an over-arching theme of allowing a concentration of retail sales and offices that can benefit from regional traffic on I-80 and State Highway 4 and that can generate sales and employment with disturbing neighbors in the adjoining residential areas. Regional recreations-serving uses are also mentioned as a specific purpose befitting to the commercial districts.[3]

Photographs of the Property are presented in Appendix A.

3.2 Nature of Property

The Property consists of two parcels APN 406-522-001 and -004 located at 1444 Willow Avenue in Hercules. It is zoned by the City of Hercules for General Commercial (GC) land uses.

The Property slopes variably as shown in Figure 1 and photographs (Appendix A). The Property and adjoining parcels were viewed by the assessor on July 27, 2016. During the reconnaissance, visible signs of potential environmental impairment such as stressed vegetation or stained soil, oil staining, foul odors, sumps, drains, vent or fill pipes, for example, were looked for. These conditions were not observed on the Property.

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3 Hercules, City of, 2016. Zoning Ordinance, Chapter 8, pp. 23-24. http://www.ci.hercules.ca.us/Modules/ShowDocument.aspx?documentid=194

Pole-mounted transformers were looked for but were not observed above the Property or its perimeter. Older wet-style transformers, which may contain PCBs in the liquids and bodies or "carcasses," which could require special handling, were not observed on the Property.

Liquid or solid hazardous wastes have not been generated by activities conducted on the Property and were not evidently carried onto the Property. Areas of mounded soil, areas of depressed soil, and surface impoundments of liquids were not observed during the reconnaissance in July 2016 which otherwise, if present, could be signs of potential use of the Property for waste disposal.[4] Ponding or surface impoundment of hazardous waste liquid also was not observed during the reconnaissance.[5]

The City of Hercules also provides wastewater collection, treatment and disposal services for its residents and businesses. Wastewater treatment is provide at a public-owned treatment works (POTW) operated jointly by the City of Hercules and City of Pinile at the foot of Tennent Avenue in Pinole (Hercules, City of, 2016).

Hercules's drinking water supply is from the East Bay Municiap Utility District (EBMUD). Domestic solid waste pick-up and disposal service is provided by Richmond Sanitary Service.

No environmental land use restrictions are known to exist at the Property other than those limits placed by the General Commercial zoning district and City of Hercules Municipal Code and Zoning Ordinance. Regulatory guidelines (***e.g.***, for storage of hazardous materials or wastes), hazardous waste and hazardous materials storage and handling regulations, and storm water pollution prevention discharge regulations apply in general.

3.3 Nature of Vicinity

The Property is located State Highway 4 and residential land to the north and AT&SF Railroad, Sycamore Avenue and other residential land to the south. The area generally between State Highway 4 and the AT&SF Railroad right-of-way is designated by the City for General Commercial uses. Areas adjoining the Property were observed to consist of the following:

> ***To the north***: Valley Bible Church, Daycare and Preschool (1477 Willow Avenue);
>
> ***To the northwest***: Caltrans Maintenance Facility (1369 Willow Avenue);

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4 Evidence of dumping was not apparent during the reconnaissance even though some dumping activity appears obvious in aerial photographic images. Past dumping is interpreted to have occurred *circa* 2000–2004. Construction of the second Valley Bible Church building had begun in May 2000. The dumping may or may not have been related to that construction. Debris piles 9-14 feet in diameter are tentatively interpreted to have been composed of dry inert concrete debris, sand or rock.

5 Ponding of rainwater runoff was apparent in aerial photographic images for years 2000, 2004, 2008, and 2011. Ponding may or may not be asscoaited with a minor scarp of a landslide along the southern boundary of APN 406-522-001. See Appendic C.

To the west: Palm Avenue, Palm Avenue/AT&SF Railroad bridge, and the Carone Brothers Inc. lot (1350 Willow Avenue)

To the southwest, south and southeast: AT&SF Railroad and residential subdivisions located generally south of Sycamore Avenue;

To the east: undeveloped land (APN 406-522-005); and,

To the northeast: undeveloped raw land (APN 406-522-005) and State Highway 4.

Service stations and dry cleaners do not adjoin the Property. The nearest past or current service station, Union 76 (also, formerly known as BP/Circle K, TOSCO or Conoco Phillips), is located at least 3,500 feet north-northwest of the Property. See Figure 2. The nearest dry cleaners handling dry cleaning fluid called PERC, or formerly handling PERC, are Willow Cleaners (844 Willow Avenue #A5), Hercules Cleaners (1581 Sycamore Avenue #7), Park Lane Cleaners (1572 Sycamore Avenue #C), and Creekside Cleaners (1511 Sycamore Avenue #G). See Figure 2.

3.4 Topography and Hydrogeology

The Property is located along the south side of Willow Avenue, between Willow Avenue and the Atchison, Topeka & Santa Fe (AT&SF) Railroad, at an elevation of approximately 100 feet above mean sea level (National Geodetic Vertical Datum of 1929). The ground surface slopes variably, generally down from the Willow Avenue side of the Property toward AT&SF Railroad and Sycamore Avenue.

The East Branch of Refugio Creek is located a short distance west of the Property. Groundwater conditions are highly variable depending on location. Near the Property, at the Caltrans Maintenance Facility (1369 Willow Avenue, formerly Bayberry), from December 1999 through September 2001, depth to groundwater during ranged from 2.31 to 5.56 feet below tops of casings. At 1369 Willow Avenue, the shallow groundwater surface was reported to slope down toward the northwest (RWQCB, 2002). At 828 Willow Avenue, depth to groundwater was reported between 13 and 17 feet below tops of well casings. The shallow groundwater surface at 828 Willow Avenue was reported to slope down toward the east-southeast or east (RWQCB, 1998). Both sites are located just below the 100 foot elevation contour (see Figure 1); however, 828 Willow Avenue is located in the Rodeo Creek drainage whereas Caltrans Maintenance Facility (1369 Willow Avenue) and the Property (1444 Willow Avenue) are located in Refugio Creek drainage.

The Association of Bay Area Governments (ABAG) has prepared hazrd maps for the entire San Francisco Bay area. The hazard maps, or Resiliance Program Hazard Maps, illustrate relative risks for a variety of natural issues including earth-shaking, liquefaction, and landslide. The interactive map for the area of the Property illustrates existing landslide areas and areas susceptible to landslides. On a relative scale (very few, few, many, or mostly landslides), APN 406-522-001 is shown being in a connected area of few landslides. APN 406-522-004 overlaps a connected area mapped as having many landslides. Debris flow sources are not mapped as being

found on the Property. However, independent review of aerial photographic images shows a potential minor scarp from recent landslide activity on APN 406-522-001 and also on land near Highway 4 which adjoins APN 406-522-004.

FEMA designates the Property as being located outside Zone AE of flooding. The Property also is located outside the regulatory floodway of the East Branch of Refugio Creek (see Figure 4).

3.5 Interviews of Knowledgeable Parties

Several knowledgeable parties were contact in regard to the Property, as summarized below. As declared in Section 2.2, the current owner of the Property was not contacted or had not responded to an environmental questionnaire at the time of publication of the Phase I report. Therefore, if the owner holds personal knowledge relevant to the current Phase I environmental site assessment, such information held by the owner may not have been disclosed in this Phase I report.

Ms. Holly Smyth—Ms. Smyth is Planning Director for the City of Hercules. She would be familiar with any applications for development on the Property. Ms. Smyth commented that there have been no applications and verified the applicable zoning district.

Mr. Michael W. Conley—The Phase I Report User, Mr. Michael W. Conley, Claremont Homes, Inc., is a Prospective Buyer. Mr. Conley does not have personal knowledge about the Property.

4.0 PROPERTY HISTORY

4.1 Prior Owners

The owner of the Property as of 2016 was El Portal Church of Christ Inc.[6] El Portal Church of Christ, Inc., may also be known as Church of Christ Richmond and Church of Christ Rheem & San Pablo Avenue. A grant deed for APN 406-522-002 was issued by El Portal Church of Christ, Inc., to the City of Hercules and was recorded on February 1, 1995 (Document No. 0016401-00).

Parcels APN 406-522-004 and 406-522-005 were created on April 13, 1995, according to the note on the Contra Costa County Assessor's parcel map. Parcels APN 406-522-002, -004, and -005 are believed by the assessor to have been involved in right-of-way dedication for Willow Avenue, Willow Avenue bridge or Highway 4 improvements.[7] If so, parcels APN 406-522-004 and 406-522-005 likely were created as remainder parcels.

Additional search of the Clerk-Recorder Imaging Information System (CRiss)[8] for recorded documents under El Portal Church of Christ, Inc., Church of Christ

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6 Preliminary Purchase Agreement, undated.

7 APN 406-522-002 is no longer shown on the Contra Costa County Assessor's parcel map. According to the review of aerial photographic images, the Willow Avenue bridge overcrossing and connecting segment of Willow Avenue were built during the period July 1993-February 1996 (see Section 4.2 or Appendix C).

8 Clerk-Recorder Imaging Information System (CRiis), https://www.criis.com/contracosta.html

Richmond and Church of Christ San Pablo Avenue found no other documents matching APN 406-522-001, APN 406-522-002 or APN 406-522-004, during 1986–present. Other past owners, therefore, are not known from the research conducted for this Phase I environmental site assessment which did not include chain-of-title ownership research.

4.2 Prior Uses

Aerial Photograph Review

Aerial photographs of the Property were viewed for 1938, 1948, 1958, 1968, 1975, 1980, 1993, 1996, 2000, 2004, 2008, and 2011 (see Appendix C). Photos were available from the following sources: U. S. Geological Survey (U.S.G.S.) EarthExplorer; Contra Costa County CCMAP GIS interactive mapping system; and, GoogleEarth. Additional aerial photographs for the period 1993-present also were viewed on-line on GoogleEarth.

Summary— According to review of historical topographic maps and aerial photographic images, the Property has not been used for any apparent structure or other land use during 1916-present. In 2000, there is apparent use of the Property for off-road all-terrain vehicles, by which access was from Willow Avenue across from the driveway to Valley Bible Church. In 2004, surficial dumping was apparent near this point of access. The 12,500 square foot area of surficial dumping did not appear expanded in the subsequent photographic images (*e.g.*, 2006, 2008). Individual debris piles were approximately 9-14 feet in diameter.

Upper reaches of the East Branch of Refugio Creek are evident during 1938–1968. The uppermost reach appears to be culverted under Willow Avenue just west of Palm Avenue. Through the vicinity of the Caltrans Maintenance Facility the original creek trace was diverted and filled.

The AT&SF Railroad bridge over Palm Avenue also was apparent in 1938, as the bridge was built in 1899.[9] The East Branch of Refugio Creek ran west of the bridge and the Property. No segment of the creek traversed the Property.

During 1975-1980 came the construction of Sycamore Avenue and residential subdivisions in the area south of the Property. Residential areas north of the Property also were subdivided and lots and roads were graded; however, houses in the subdivided area south of the Property generally were built after 1980. The residential subdivision near Sycamore Avenue, Aster Court and Lotus Court removed the last trace of the former uppermost reach of the East Branch San Refugio Creek.

The original Route 4 ran under the AT&SF Railroad -Palm Avenue bridge and followed the former Franklin Canyon Road. Loop and diagonal ramps from I-80 were added during 1951–1959. The current Highway 4 was built during 1980–1993 and was modified during 1993–1996 and again during 2000–2002. In 1980 grading

9 Hope, Andrew, 2004. *Caltrans Statewide Historic Bridge Inventory Update*, November 2004, (25 pp.), page 5. http://www.dot.ca.gov/hq/env/cultural/history/cso_common_br_types_2004.pdf Bridge #28-0037Y over Palm Avenue in Hercules is a steel girder bridge built in 1899.

for the Newbury Street-Canterbury-Brighton Street residential subdivision left future right-of-way for Route 4. The new Route 4 was constructed in an unspecified year between 1981 and 1992. By 1993, the old Route 4 appeared to be abandoned and Palm Avenue and Willow Avenue terminated in bulbs south of the new Route 4 without intersecting the new Route 4. By 1996, the Willow Avenue bridge overcrossing of the new Route 4 was apparent.

By 2000, the new westbound Highway 4 travel lanes were under construction north of the previous Route 4 lanes. This highway construction work was completed *circa* 2002, and the completed westbound lanes are apparent in the 2004 aerial photographic image (Appendix C). By 2008, the Sycamore Avenue intersection with Palm Avenue was constructed. The Palm Avenue bulb north of Willow Avenue appeared to be abandoned as a public right-of-way and instead was striped for diagonal parking.

The Property generally was unaffected by highway and surface street construction. Review of aerial photographic images suggests that minor earthwork along the northern boundary of APN 406-522-004 (on the approach to the Willow Avenue bridge overcrossing of Highway 4) may have been performed, leaving a minor cut slope.

1938—The Property was not improved with any structure in the 1938 aerial photographic image (see Appendix C). The AT&SF Railroad was visible. The trace of the East Branch of Refugio Creek was visible. Surface streets and the railroad bridge over Palm Avenue were apparent. There was no sign of soil disturbance or surface impoundment of liquids on the Property.

1948—Same as in 1938. Old Route 4 used the alignment of Bayberry Way(Willow Avenue), Palm Avenue, and Franklin Canyon Road (Sycamore Avenue). There was no sign of soil disturbance or surface impoundment of liquids on the Property.

1958—The trace of the East Branch of Refugio Creek was apparent west of the Property and south of the Property. No segment of the creek appeared to be located on the Property. There were no structures on the Property and uses of the Property were not apparent. Off site to the west of the Property, small structures were discernible on the WC Drilling lot. Also, the PG&E substation was discernible west of the Property.

1968—There was no apparent use of the Property. There were no obvious signs of landfilling, soil stockpiling, surface impoundments of waste liquids, wrecked cars, or numbers of 55-gallon drums in uncovered outdoor storage on the Property or on land adjoining the Property. Off site, a medium-sized building was apparent on the WC Drilling lot west of the Property. The trace of the East Branch of Refugio Creek was mostly obliterated near Palm Avenue and reappeared just south. South of the eastern end of the Property, along the railroad tracks, there was a rectangular fenced lot.

1975—There were no apparent uses of the Property in the 1975 aerial photographic image. There were no obvious signs of landfilling, soil stockpiling, surface impoundments of waste liquids, wrecked cars, or numbers of 55-gallon drums in uncovered outdoor storage on the Property or on land adjoining the Property. By 1975, offsite, the Caltrans Maintenance Facility was apparent including one long narrow structure and potential smaller structures.

1980— There were no apparent uses of the Property in the 1975 aerial photographic image. There were no obvious signs of landfilling, soil stockpiling, surface impoundments of waste liquids, wrecked cars, or numbers of 55-gallon drums in uncovered outdoor storage on the Property or on land adjoining the Property. Off site, north of the Property, a very large residential area had been subdivided, with graded level pads and graded roads but no houses at October 1, 1980. Interpretation of subdivision boundaries along the south suggests that right-of-way had bee reserved for Route 4 improvements. South of the eastern end of the Property, along the railroad tracks, the rectangular fenced lot was no longer present. Farther south of the Property another large residential area had been subdivided and was completed with houses at October 1, 1980. West of the Property, buildings and vehicles were clearly visible at the Caltrans Maintenance Facility, Carone Brothers and WC Drilling lots.

1993—By 1993, the new Route 4 had been constructed north of the Property, leaving Willow Avenue discontinuous across the new highway lanes. On the north side of Route 4, Willow Avenue terminated with hook ramps. There was no bridge overcrossing. Also north of the Property, the first of the two Valley Bible Church buildings was apparent. The eastern building of the Valley Bible Church complex was built first.

West of the Property. The AT&SF Railroad bridge over Palm Avenue remained Palm Avenue itself terminated in a bulb which was disconnected from the new Route 4. Farther west of the Property, the new Hercules City Center was apparent.

Obvious signs of landfilling, soil stockpiling, surface impoundments of waste liquids, wrecked cars, or numbers of 55-gallon drums in uncovered outdoor storage were not apparent on the Property or on land adjoining the Property.

1996—By February 1996, the Willow Avenue bridge overcrossing at Route 4 and connecting segment of Willow Avenue were apparent. Obvious signs of landfilling, soil stockpiling, surface impoundments of waste liquids, wrecked cars, or numbers of 55-gallon drums in uncovered outdoor storage were not apparent on the Property or on land adjoining the Property.

2000—On the Property, tracks of off-road vehicles (possibly quads) were apparent. An area of seasonal ponding appeared between the Property and the AT&SF Railroad tracks (see Appendix C). Off site, over thirteen trucks or drill rigs were parked at WC Drilling, west of the Property. North of the Property, construction of the second Valley Bible Church building had begun in May 2000. Farther north of the Property, construction of the new Highway 4 westbound lanes north of the existing Route 4 lanes was apparent. The old Route 4 lanes became eastbound lanes.

2004—In April 2004, the Property had no discernible structures but had an area of apparent ground disturbance with several debris piles (Appendix C). The debris piles were located within a 12,000 square foot area accessed from Willow Avenue. Each pile had an approximate diameter of 9–14 feet.

Off site, the second Valley Bible Church building, construction of which had started in 2000, was apparent. The new Highway 4 had been completed.

2008—The Property had no discernible structures but still had an area of apparent ground disturbance with several debris piles as in 2004. The area of the debris piles remained about the same, within a footprint of approximately 12,000 square feet. An area of seasonal ponding appeared between the Property and the AT&SF Railroad tracks (Appendix C).

Off site, on land adjoining the Property, there were no obvious signs of landfilling, surface impoundments of waste liquids, wrecked cars, or numbers of 55-gallon drums in uncovered outdoor storage. One soil stockpile appears to be present on the WC Drilling lot west of the Property. South of the Property, the new intersection of Sycamore Avenue and Palm Avenue was apparent, leaving an abandoned segment of the former Sycamore Avenue along the back of the cul-de-sacs named Azalea Court and Poppy Court.

2011—On the Property, debris piles apparent in 2004 and 2008 were no longer obvious in April 2011. The area of seasonal ponding between the Property and the AT&SF Railroad tracks appeared to be at its largest extent (8,200 square feet) in April 2011. The shape of the water surface and bank suggests a minor landslide scarp having an area of 15,000 square feet. No sign of the scarp was evident during the reconnaissance owing to vegetative cover (*i.e.*, dry grass cover) or repair. The Property appeared free of drums, excavation pits or trenches, soil stockpiles, and junk cars.

Off-site, most of the soil stockpile previously apparent on the WC Drilling lot west of the Property had been removed. There were no obvious signs of landfilling, soil stockpiling, surface impoundments of waste liquids, wrecked cars, or numbers of 55-gallon drums in uncovered outdoor storage on the Property or on land adjoining the Property.

Sanborn Fire Insurance Rate Maps

The Property is located at substantial distance from central Hercules. The Property is not located in an area covered by historical Sanborn Fire Insurance Rate Maps.

Historical Topographic Maps

Historical topographic maps by the U.S. Geological Survey were viewed on-line at the USGS Historical Map Collection. Historical maps of the Benicia and Mare Island 7.5-minute or 15-minute quadrangle are available for 1916, 1942, 1946, 1948, 1951, 1959, 1968 and 1980. These maps are presented in Figure 1 for 1980 and in Appendix D for 1916, 1942, 1946, 1948, 1951, 1959, 1968 and 1980.

In the early 20th century, Refugio and Rodeo Creeks were illustrated as perennial creeks. Refugio Creek flowed in multiple branches, the eastern branch approaching closest to the Property. Construction of the I-80/Route 4 interchange loop and diagonal ramps and placement of fill for those ramps *circa* 1959 appears to have shifted channel of the East Branch of Refugio Creek south of the natural creek channel.

Even before construction of the I-80/Route 4 interchange loop and diagonal ramps, Route 4 was shown south of the Property via Franklin Canyon Road. This Route 4 alignment was continuous during 1942– 1980 (see Appendix C). It was not until 2000–2002 that the current Highway 4 was improved with divided eastbound and westbound travel lanes. The earlier lanes became eastbound lanes and newly constructed lanes were used for westbound traffic.

Based on review of the historical topographic maps, there were no structures on the Property during 1916–1980. No orchard grid was illustrated, which is the normal practice by USGS where orchards are present.

5.0 REVIEW OF ENVIRONMENTAL AGENCY RECORDS

5.1 Environmental Records Maintained at the Property

No relevant environmental records are maintained at the Property and none would be expected in view of the absence of improvements or open field status of the Property. The Property has not been improved with any commercial or residential use. The Property has not been used for landfilling, auto wrecking, auto repair, dry cleaning, mining, manufacturing or other industrial uses. The Property is not listed on the standard public agency data bases searched for this Phase I environmental site assessment.

5.2 Public Agency Data Bases

The services of National Environmental Title Research, ("NETR"), were used to conduct a search of public agency databases in general accordance with the ASTM E 1527-13 Standard for Practice, for potential facilities in the vicinity of the Property with reported releases that may have the potential to impact the Property. The following information is noted from NETR's Environmental Radius Report (Appendix B).

GOVERNMENTAL DATABASES
Federal NPL Superfund Site List: Distance Considered - 1.0 mile

Superfund sites are sites that contain hazardous materials for which there are no responsible parties for cleanup or for which Federal government oversight and management will be involved. According to NETR's search of this database, no federal Superfund, proposed Superfund site, or de-listed Superfund site is located within one mile of the Property.

Federal CERCLIS List: Distance Considered - 0.5 mile

The Comprehensive Environmental Response and Compensation Liability Act Information System (CERCLIS) database is maintained by the U.S. Environmental Protection Agency (U.S. EPA) of potential hazardous waste sites that have come to the attention of the U.S. EPA. Sites on the CERC-NFRAP list are not necessarily hazardous waste sites, but rather sites that the U.S. EPA has already investigated and determined that "No Further Action is Planned" (NFRAP). According to NETR's search of this database, no CERCLIS site is located within a 0.5 mile of the Property.

Federal CERC-NFRAP List: Distance Considered - 0.5 mile

Sites on the CERC-NFRAP list are not necessarily hazardous waste sites, but rather sites that the U.S. EPA has already investigated and determined that "No Further Action is Planned" (NFRAP). According to NETR's search of this database, a CERC-NFRAP site is not located within a 0.5 mile of the Property.

Federal RCRA Corrective Actions (CORRACTS): Distance Considered - 1.0 mile

The Resource Conservation and Recovery Act (RCRA) Corrective Actions (CORRACTS) database is maintained by the U.S EPA for facilities having been cited under RCRA Section 3008(h) for release of hazardous waste to the environment from a RCRA facility. According to NETR's search of this database, there is no RCRA CORRACTS facility within approximately one mile of the Property.

Federal RCRIS-TSD Facilities: Distance Considered – 0.5 mile

The Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and Disposal (TSD) facilities database is maintained by the U.S EPA for facilities at which treatment, storage and/or disposal of hazardous wastes takes place, as defined and regulated by RCRA. According to NETR's search of this database, there is no RCRA TSD facility within 0.5 mile of the Property.

Federal Institutional Controls Tracking System (ICTS) and Engineering Controls Registry: Distance Considered – 1.0 mile

Institutional controls (ICs) are administrative and legal actions that do not involve construction or physically changing a site of contamination release. ICs are intended to minimize potential for exposure to or inadvertent spreading of contamination and to ensure appropriate land resource use. ICs are adopted when the clean-up does not leave a site in a condition consistent with unrestricted use. Commonly applied ICs include deed restrictions which are placed within a deed to direct future use or constraints to use of the land. Restrictions conveyed with a deed "ride with the land" and cannot generally be removed by new owners.

In contrast, engineering controls (ECs) encompass a wide variety of constructed and engineered physical systems (*e.g.*, soil capping, sub-surface venting systems, fences, mitigation barriers such as slurry walls,) to contain and/or prevent exposure to land having contamination in the soil, soil vapor, or groundwater.

An ICTS-listed site is not located within one mile of the Property.

Federal ERNS List: Distance Considered – Property and Adjoining Parcels

The ERNS List is the U.S. EPA Emergency Response Notification System database of reported CERCLA hazardous substance releases or spills in quantities greater than the minimum reportable quantity, as maintained at the National Response Center. According to NETR's search of the ERNS database, the Property and adjoining parcels are not listed on the ERNS list.

Federal TRIS List: Distance Considered – Target Property and Adjoining Parcels

The federal Toxic Release Inventory System (TRIS) List is the U.S. EPA list generated by facilities which complete FORM R Toxic Chemical Release. The inventory is required by SARA Title III, the Community Right-to Know Act of 1986. The Property is not listed on the TRIS

database, according to NETR's search of this database. Parcels adjoining the Property also are not listed on the TRIS database.

The nearest TRIS-listed site is located nearly one mile northwest of the Property on San Pablo Avenue. Hercules L.L. C. (dba New Pacific Properties), 4901 San Pablo Avenue, is the identified TRIS-listed site. In view of its distance and location northwest of the Property, the Hercules L.L.C. site does not pose an obvious likelihood or an apparent risk of environmental impairment for the owner of the Property.

Federal RCRA-Hazardous Waste Generators (LQG and SQG): Distance Considered - 0.25 mile

The RCRA-hazardous waste generators database is maintained by the U.S. EPA of those facilities, entities, or persons that generate hazardous waste as defined and regulated by RCRA. According to NETR's search of the database, large-quantity generators of RCRA-hazardous waste (LQGs) are not located with approximately one mile from the Property. The nearest small-quantity generator of RCRA-hazardous waste (SQG) is Caltrans Maintenance facility (1369 Willow Avenue or, formerly, 1369 Bayberry Avenue). In view of its location west of the Property, the Caltrans Maintenance facility does not pose an obvious likelihood or an apparent risk of environmental impairment for the owner of the Property.

U.S. Brownfields: Distance Considered – 0.5 mile

U.S. EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES) is a federal online database for Brownfields Grantees to electronically submit data directly to U.S. EPA. Included in the listing are Brownfields sites addressed by Cooperative Agreement Recipients and Brownfields sites addressed by Targeted Brownfields Assessments funded by U.S. EPA. According to NETR's search of the database, Brownfields sites are not located within a 0.5 mile radius or 1 mile radius around the Property.

National Pollution Discharge Elimination System: Distance Considered - 1.0 mile

The NPDES module of the Integrated Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. In the San Francisco Bay Area NPDES permits contain waste discharge requirements (WDRs), numeric limits on what can be discharged, monitoring and reporting requirements. The Property is not listed in the ICIS database.

One NPDES site is reported which is located nearly one mile from the Property. Hercules L.L. C. (dba New Pacific Properties) is located northwest of the Property, west of I-80, at 4901 San Pablo Avenue. In view of its distance and location northwest of the Property, the Hercules L.L.C.

site does not pose an obvious likelihood or an apparent risk of environmental impairment for the owner of the Property.

Air Facility System (AIRS / AFS): Distance Considered - 1.0 mile

The Air Facility System (AIRS / AFS) contains compliance and permit data for stationary sources of air pollution (*e.g.*, electric power plants, steel mills, other industrial plants, large dry cleaners, and universities) regulated by the U.S. EPA, state and local air pollution control agencies. Information in AFS is used by state air pollution control agencies to help them prepare State Implementation Plans (SIPs) and to track compliance of point sources with various regulatory programs.

AIRS/AFS-listed facilities are not located within one mile of the Property.

State Registered Underground Storage Tanks (Geotracker): Distance Considered – 0.25 mile

According to NETR's search of the Geotracker database, sites having registered, permitted USTs are not located closer than 0.5 mile from the Property. The nearest sites having or having had registered, permitted USTs are located over 0.5 mile from the Property. In view of the distance, registered UST sites do not pose an obvious likelihood or an apparent risk of environmental impairment for the owner of the Property.

Leaking Underground Storage Tank (LUST) Database: Distance Considered - 0.5 mile

The State of California Water Resources Control Board (SWRCB) maintains a database for sites that are currently involved in site assessment/mitigation resulting from reported unauthorized spills or releases from underground storage tanks (USTs). According to NETR's search of the LUST database, seven (7) past cases of leaking underground tank systems involving unauthorized releases of petroleum fuel occurred within 1 mile of the Property. Two of these past LUST cases are for sites located within approximately 0.5 mile of the Property.

- Carone Bros. Inc. lot (1350 Bayberry Way, also known as 1350 Willow Avenue), 750 feet (0.14 mile) west of the Property, closed case
- Caltrans Maintenance Facility (1369 Bayberry Way, also known as 1369 Willow Avenue), 500 feet (0.10 mile) west of the Property, closed case

Other past LUST cases were located over 0.5 mile from the Property:

- Former BP service station (828 Willow Avenue), 3,500 feet (0.66 mile) north-northwest of Property, closed case
- Pacific Bell (1540 Sycamore Avenue), 3,700 feet (0.70 mile) west-southwest of the Property, closed case

- Old Transit Center or old WestCAT Center (Sycamore Avenue at San Pablo Avenue), 3,800 feet (0.72 mile) west of the Property, closed case
- Pacific Refining Company (4901 San Pablo Avenue), 5,400 feet (1.03 mile) northwest of Property, closed case

Figure 2 illustrates the locations of Carone Brothers lot (1350 Willow Avenue), Caltrans Maintenance Facility (1369 Willow Avenue), BP service station (828 Willow Avenue) and the Old Transit Center (Sycamore Avenue at San Pablo Avenue). In view of the locations of the releases, these LUST sites, with the possible exception of the past release at Carone Bros., do not pose an obvious likelihood or an apparent risk of environmental impairment for the owner of the Property.

CA CERCLIS Equivalent or DTSC Response: Distance Considered – 1.0 mile

The "DTSC or State Response" database is from California DTSC and identifies sites having confirmed hazardous materials or waste releases for which DTSC provides oversight in a remedial response. According to NETR's search of the State Response database, the Property itself is not listed in the DTSC Response database. A DTSC Response site is not reported by NETR as being located within 1 mile of the Property. This result was independently checked and verified on-line at the EnviroStor web site.[10]

CA NPL Equivalent: Distance Considered – 1.0 mile

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program (SMBRP) database is known as EnviroStor. EnviroStor is an online search and Geographic Information System tool for identifying sites with known or potential contamination, and sites where DTSC's environmental oversight or review has been requested or required. This is the equivalent of the Federal NPL identifying facilities and study areas with known contamination that are given priority for remedial action. NETR's search of the database found no CA NPL Equivalent site located within one mile of the Property.

CA Hazardous Waste Site or Historical Cortese List: Distance Considered – 0.5 mile

A list of 536 historical Cortese sites was downloaded from Cal/EPA.[11] Historical Cortese sites are not reported by NETR as being located within a 0.5-mile radius of the Property. The Property itself is not listed. Cortese-listed sites are located outside the 0.5 mile radius. Hercules Inc. (Sycamore and San Pablo Avenue) is located 0.79 mile west of the Property.

CA Activity and Use Restrictions: Distance Considered – 0.5 mile

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[10] California DTSC, 2016. EnviroStor, web site visited July 2016. http://www.envirostor.dtsc.ca.gov

[11] California DTSC, 2016. Cortese List, visited 2016. http://www.calepa.ca.gov/SiteCleanup/CorteseList/SectionA.htm

California DTSC developed the list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. Land use restrictions were required by DTSC as a result of the presence of hazardous substances remaining on site after the facility (or part of the facility) was closed or cleaned up. Kinds of land use restrictions include deed notices, deed restrictions, or land use restrictions that bind current and future owners.

An "environmental lien" means a charge, security, or encumbrance on a property's title to secure payment of cost or debt arising from environmental response actions such as clean up or remediation of hazardous substances or petroleum products.

According to NETR's search of the DTSC database, the Property does not have recorded restrictions for buried wastes or other recognized hazardous condition. No use restriction site is located within approximately 0.5 mile of the Property.

At the former Hercules Inc. site, which is located 0.79 mile west of the Property, TNT-impaired wetland soil was allowed to remain. The wetlands are protected through a deed restriction filed at the Contra Costa County Recorder's Office (DTSC, Public Notice, 2012).[12]

CA SLIC (Non-Petroleum)List: Distance Considered - 0.5 mile

The California Water Resources Control Boards maintain databases of Spills, Leaks, and Contamination Incidents (SLIC). These databases are maintained separately from the Leaking Underground Fuel Tank databases. As reported by NETR, a SLIC site listed for release of non-petroleum hydrocarbons is not located within 0.5 mile of the Property. The Property itself also is not listed. Several SLIC sites are listed for releases of petroleum hydrocarbons which occurred within 0.5 mile from the Property.

The nearest SLIC sites listed for releases of petroleum products are:

- Carone Bros. Inc. (1350 Bayberry Way, also known as 1350 Willow Avenue), 750 feet (0.14 mile) west of the Property, closed case
- Caltrans Maintenance Facility (1369 Bayberry Way, also known as 1369 Willow Avenue), 500 feet (0.10 mile) west of the Property, closed case
- BP (828 Willow Avenue), 3,500 feet (0.66 mile) north-northwest of Property, closed case
- Pacific Bell (1540 Sycamore Avenue), 3,700 feet (0.70 mile) west-southwest of the Property, closed case

12 California DTSC, 2012. Public Notice for Hercules Inc., September 2012. http://www.envirostor.dtsc.ca.gov/regulators/deliverable_documents/2931736588/Public%20Notice%205YR%20commence.pdf

- Old Transit Center or old WestCAT Center (Sycamore Avenue at San Pablo Avenue), 3,800 feet (0.72 mile) west of the Property, closed case

Pacific Refining Co. (4901 San Pablo Avenue) is miss-plotted. The true location of Pacific Refining Co. (4901 San Pablo Avenue) is 1.03 mile northwest of the Property.

Waste Landfills (SWF/LF): Distance Considered – 0.5 mile

The California Integrated Waste Management Board (CIWMB) maintains a the SWF/LF database of active and inactive landfills in California. According to NETR's search of the CIWMB's SWF/LF database, a waste landfill, active or inactive, is not listed as being located within 0.5 mile of the Property.

CA Oil and Gas Wells: Distance Considered– 0.5 mile

The California Department of Conservation, Division of Oil, Gas and Geothermal Resources was created to serve the needs of the state, local governments, and industry by regulating statewide oil and gas activities with uniform laws and regulations. The Division of Oil, Gas and Geothermal Resources supervises the drilling, operation, maintenance, and plugging and abandonment of onshore and offshore oil, gas, and geothermal wells.

According to NETR's search of the Division of Oil, Gas and Geothermal Resources (DOGGR) database, oil or natural gas well sites are not reported within 1 mile of the Property.

Voluntary Cleanup Program (VCP): Distance Considered – 0.5 mile

Generally, VCP sites include low-level risk parcels with either confirmed or unconfirmed releases which are being investigated. Landowners request listing and oversight is provided by either DTSC or RWQCB on a program fee basis fully recovered based on actual staff labor hours. NETR reported no VCP site located within 1 mile of the Property.

SUPPLEMENTAL DATABASES

U.S. EPA Facility Registry Service (FRS): Distance Considered – 0.25 Mile

The U.S. EPA Facility Registry System (FRS) is like a compendium and includes sites listed on Cal/EPA's California Environmental Reporting System (CERS), DTSC Hazardous Waste Tracking System (HWTS), RCRIS and Emission Inventory System (EIS), and the federal Emergency Planning and Community Right-to-Know Act (EPCRA) reporting system. EPCRA was passed by Congress in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. CERS is a statewide web-based system to support California Unified Program Agencies (CUPAs) and other participating agencies (PAs)

in electronic reporting of various hazardous materials-related data as mandated by the California Health and Safety Code and 2008 legislation (AB2286).[13]

According to search of the FRS, there are a number of neighbors who report to CERS or who are listed in other electronic databases (*e.g.*, LUST, GeoTracker, HWTS, EIS). Two (2) of the FRS sites are located within 0.25 mile from the Property, and others are more distant.

- Caltrans Maintenance Facility (1369 Bayberry Way, also known as 1369 Willow Avenue), 500 feet (0.10 mile) west of the Property, RCRA-Info, closed LUST case
- Carone Bros. Inc. (1350 Bayberry Way, also known as 1350 Willow Avenue), 750 feet (0.14 mile) west of the Property, closed LUST case

More distant FRS sites include the following sites:

- The Home Depot (1625 Sycamore Avenue), 2,400 feet (0.45 mile) west-southwest, FRS
- Hercules Cleaner (1581 Sycamore Avenue #7), 3,300 feet (0.62 mile) west-southwest of the Property, FRS
- Albertson's #7013/Lucky #718 (1590 Sycamore Avenue), 3,400 feet (0.64 mile) southwest of the Property, FRS
- BP/TOSCO/ConocoPhillips (828 Willow Avenue), 3,500 feet (0.66 mile) north-northwest of Property, LUST closed case
- Park Lane Cleaner (1541 Sycamore Avenue #C) 3,700 feet (0.70 mile) west-southwest of the Property, FRS
- Pacific Bell (1540 Sycamore Avenue), 3,700 feet (0.70 mile) west-southwest of the Property, FRS
- Old Transit Center or old WestCAT Center (1300 Sycamore Avenue at San Pablo Avenue), 3,800 feet (0.72 mile) west of the Property, closed LUST case
- Gelsar (Sycamore Avenue at San Pablo Avenue), 3,800 feet (0.72 mile) west of the Property, re-powering
- Hercules Inc. (Sycamore Avenue at San Pablo Avenue), 3,800 feet (0.72 mile) west of the Property, EnviroStor
- PG&E (4001 San Pablo Avenue), 4,000 feet (0.76 mile) northwest of Property, EIS

Hazardous Waste Tracking System (HWTS): Distance Considered – 0.25 Mile

California DTSC Hazardous Waste Tracking System (HWTS) is a database created from manifested transportation/disposal of hazardous waste. HWTS system was accessed during preparation of this report.[14]

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13 If one of the regulated businesses, a facility is required annually to review and submit information regarding the Hazardous Materials Business Plan, Hazardous Waste Generator reports, Underground Storage Tanks, Aboveground Petroleum Storage Act, and/or California Accidental Release Prevention Programs (also known as the CUPA data).

14 http://hwts.dtsc.ca.gov

The HWTS database was searched for sites located close to the subject Property. Fifteen (15) HWTS sites are listed as follow in Table 1. One site, West Coast Drilling (1350 Willow Avenue), was found which adjoins the Property. According to the HWTS database, waste shipments from West Coast Drilling included oil-containing waste (2007), oil/water separator sludge (2001, 2005), and unspecified organic liquid mixture (2007). Other sites located within approximately 0.25 mile of the Property have shipped small quantities of petroleum or other wastes for proper disposal, which is routine for the kinds of businesses listed. The Caltrans Maintenance yard shipped waste hydrocarbon solvent (1993, 1994), waste oil (1993,1994), oil-containing waste (1993, 1995-1997), and contaminated soil (1999), and made additional waste shipments during 2000-2016.

EnviroStor School Evaluation or Clean-Up: Distance Considered – 1.0 mile

DTSC's EnviroStor database also includes school evaluation sites for which DTSC has reviewed environmental sites assessments, Phase II data, or clean-up action reports. California Department of Toxic Substances Control (DTSC) administers evaluation of school sites for potential toxic substances (*e.g.*, lead, pesticides) on California school sites or proposed school sites.

A school evaluation (*i.e.*, school investigation or clean-up site) is not shown in EnviroStor as being located within 1 mile of the Property. The nearest school investigation or clean-up site is shown in EnviroStor as being located 1.06 miles from the Property. This proposed 17-acre middle school site is located near the intersection of Alfred Nobel Drive and Linus Pauling Drive.

In view of its distance 1.06 miles northwest of the Property, and "no further action required" status, the school evaluation site does not pose an obvious likelihood or and apparent risk of environmental impairment for the owner of the Property.

EnviroStor Sites with Land Use Restrictions: Distance Considered – City-wide

DTSC in EnviroStor includes a list of 614 California sites having deed covenants restricting use of the land.[15] The sub-list for the City of Hercules was reviewed. The Property was not listed. One (1) DTSC deed restriction site located in Zip Code area 94547 is located within 0.72 mile of the Property. The DTSC deed restriction site is the former Hercules Inc. 41-acre site, also known as Sycamore Crossing (Figure 2), which is located in the southwestern corner of Sycamore Avenue and San Pablo Avenue. The 2-acre wetland sub-area of Sycamore Crossing is subject to a deed restriction.

[15] http://www.envirostor.dtsc.ca.gov/public/deed_restrictions.asp?orderby=city

TABLE 1
Hazardous Waste Tracking System
Listed Sites near the Property

Address	Business Name	Generator ID	Yrs	Waste
Northwest and West of Property				
1369 Willow Avenue	Caltrans Maintenance United Power Contracting Inc.	CAD982028490 CAC002654578	'93-'16 ---	Oil[b] No rec
1350 Willow Avenue 1350 Willow (Bayberry)	West Coast Drilling[a] West Coast Drilling[a] Gaetano-Franlou Carone	CAC002426655 CAL000277820 CAC000669944	'01-'05 2007 ---	Oil/wat[c] Oil No rec
1213 Willow Avenue	PG&E Franklin Station	CAC002624424 CAC001433132	2007 ---	Oil,PCBs No rec
844 Willow Avenue #A5	Willow Cleaners	CAD983653429 CAL000034281	'93-'03 ---	Perc No rec
828 Willow Avenue	TOSCO BP Conoco Phillips	CA0001021732 CAC000601904 CAL000323112	'95-'03 ---	Org liq[d] No rec
4200 San Pablo Avenue	Santa Clara Valley Housing Santa Clara Valley Housing Santa Clara Valley Housing PG&E Pump Station PG&E Pump Station	CAC002779885 CAC002628666 CAC002638689 CAC002232457 CAC002593571	2014 2008 2009 --- ---	Oil, asb Oil Oil, asb No rec No rec
San Pablo/Sycamore	Hercules Inc. Hercules Inc. Hercules Inc. LCRI Investment LLC LCRI Investment LLC	CAC000647968 CAC000753560 CAC000758904 CAL000214620 CAR000148924	 2000	 Soil
Southwest of Property				
1625 Sycamore Avenue	Diversified Roofing Corp. MPM Silicones LLC The Home Depot #1044	CAC002856901 CAC002622164 CAL000277101	--- --- '04-'06	No rec No rec pestic[e]
1592 Sycamore Avenue	Raley's #352	CA0000927509	'94-'98	Photo
1590 Sycamore Avenue	Lucky #718	CAR000249789		
1581 Sycamore Ave. #7	Hercules Cleaners	CAL000121936	'94-'01	Perc
1572 Sycamore Ave. #C	Park Lane Cleaners	CAL000084203	'97-'00	Perc
1511 Sycamore Ave. #G	Creekside Cleaners	CAD983661273	'93-'02	Perc
3400 San Pablo Ave.	PG&E	CAC002211513	'00-'01	Oil, fuel
100 Jasper Court	Building Associates, Inc.	CAC000086909	---	No rec

NOTES:
"No rec" means no manifest records found.
a. West Coast Drilling adjoins the western boundary of the Property.
b. Waste oil and oil-containing waste. Also 1 ton contaminated soil (1999) and hydrocarbon solvent (1993, 1994).
c. Oil/water separator sludge.
d. Organic liquid mixture, oil-containing waste, water with organic residues.
e. Pesticides (2004–2006), water with organic residues (2004), caustic waste liquid (2005), and old fuel ('04, '06).
SOURCE: California DTSC, Hazardous Waste Tracking System, 2016

The 2-acre wetland site has TNT residues left in soil from former explosives manufacturing by Hercules Powder Company. From 1912 through the mid-1950s Hercules Powder Company used the Sycamore

Crossing site for explosives manufacturing.[16] In view of its location and 0.72 mile distance from the Property, this DTSC deed restriction site does not pose an obvious likelihood or an apparent risk of environmental impairment for the owner of the Property.

Former PG&E Manufactured Gas Plant Sites: Distance Considered – 1.0 mile

Pacific Gas & Electric Company has posted a web site listing locations of various former manufactured gas plants in California.[17] The Property is not located within 1 mile from any of the listed former manufactured gas plants.

5.3 Regulatory Status

Caltrans Maintenance Facility (1369 Willow Avenue, formerly Bayberry)
The Caltrans Maintenance Facility has operated at 1369 Willow Avenue since 1971. Two case files were located on GeoTracker. One case file addresses details of a former evaporation pond for vehicle wash water. The other case file pertains to the removal of two (2) former gasoline and diesel USTs.

Evaporation Pond—Vehicle wash water was discharged to an open basin during 1971-1999. The evaporation basin was operated under Regional Water Quality Control Board Order No. 71-31, issued on March 27, 1991. The basin was not used for disposal of other wastes other than vehicle wash water. Caltrans ceased using the basin and backfilled it with clean soil. RWQCB by Order No. 99-025 on May 25, 1999, rescinded previous Order No. 71-31 which no longer applied.

Underground Storage Tanks—One (1) 7,500-gallon gasoline UST and one (1) 2,000-gallon diesel UST were removed from Caltrans Maintenance Facility on June 26, 1997. Soil samples collected from the excavation pit contained concentrations up to 102 mg/Kg as TPH-gasoline and up to 448 mg/Kg as TPH-diesel.[18] Approximately 4 cubic yards of TPH-affected soil were disposed off site.

The former USTs were not replaced with new USTs. Instead, encased aboveground storage was employed after June 1997.

Groundwater monitoring was performed from December 1999 through September 2001. Maximum concentrations were reported to be 100 µg/L as gasoline and 1.4 µg/L as benzene on June 28, 2000, and 350 µg/L as MtBE on October 4, 2000. Depth to groundwater during 1999-2001 ranged from 2.31 to 5.56 feet below tops of casings. The shallow groundwater surface was reported to slope down toward the northwest.

The case was closed by RWQCB on September 26, 2002, without requirement for further action (RWQCB, 2002).

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16 http://www.envirostor.dtsc.ca.gov/public/deliverable_documents/7870954215/hercules%20inc%20deed.pdf
17 http://www.pge.com/en/about/environment/taking-responsibility/mgp/index.page
18 TPH or Total Petroleum Hydrocarbons.

Former Circle K/BP Station #11154 (828 Willow Avenue)
The leaking underground storage tank at 828 Willow Avenue was investigated and monitored during 1992–1997 before the service station became a Union 76. The LUST case was closed by RWQCB without requirement for further action on January 28, 1998.

Four groundwater monitoring wells were installed by Environmental Science & Engineering. Wells ESE-1, ESE-2 and ESE-3 bracketed the northwest, northeast and southeast sides of the three (3) 10,000-gallon USTs, within approximately 15 - 30 feet of those USTs. Well ESE-4 was located a distance north of one pair of fuel islands and east of the second pair of fuel islands.

Soil samples were collected during drilling for construction of the monitoring wells. In Boring ESE-1 (later well ESE-1) the soil sample collected at 14.5 fbgs was tested and was reported to contain 11 mg/Kg as toluene. The groundwater sample collected from well ESE-1 on October 15, 1992, was tested and was reported to contain a concentration of 240 µg/L as gasoline (RWQCB, 1998).

Depth to groundwater was reported between 13 and 17 feet below tops of well casings. The shallow groundwater surface at 828 Willow Avenue was reported to slope down toward the east-southeast or east (RWQCB, 1998).

Carone Brothers Inc. (1350 Willow Avenue, formerly, Bayberry Avenue)
A leaking underground gasoline storage tank was discovered on March 26, 1992, during routine tank removal. The LUST case was opened. Environmental assessment work was initiated in 1995. The case was closed by RWQCB without requirement for further action on June 21, 2000.

Building Associates Inc. (100 Jasper Court)
A leaking underground storage tank was discovered on August 23, 1988, during routine removal of an underground diesel storage tank. The LUST case was opened. Environmental assessment work was initiated in 1994. The soil-only case was closed by RWQCB without requirement for further action on October 6, 1998.

Old WestCAT Transit Center (100 Sycamore Avenue)
A leaking 8,000-gallon underground gasoline storage tank was discovered on July 24, 1991, at which time the leak was stopped. September 25, 1992, during routine tank removal, soil was over-excavated and stockpiled on site. Initial concentrations in soil were up to 2,700 mg/Kg as TPH-gasoline, 18 mg/Kg as benzene, and 79 mg/Kg as toluene. A LUST case was opened.

The aerated soil was re-sampled and re-tested in December 1992 and was found to contain no concentrations of gasoline or BTEX at or above the laboratory's reporting limits. Approximately 90 cubic yards of the aerated soil was used off-site for fill under the road at an intersection re-construction project site. Pit de-watering water was disposed off site at a disposal facility.

The case was closed by RWQCB without requirement for further action on December 4, 2008 (RWQCB, 2008).

5.4 Other

The Environmental Impact Report for the Hercules New Town Center (HNTC) summarizes findings of a Phase I environmental site assessment which reported general potential for presence of lead-based paint on structures and asbestos-containing materials in buildings located on the Caltrans Maintenance Facility and WC Drilling parcels. WC Drilling adjoins the west end of the Property. Further, the EIR in summarizing the Phase I report suggests a general potential for aerially-deposited lead originating from State Highway 4 traffic throughout the HNTC planning area. Fourteen (14) mitigation measures, HM1 through HM14, were recommended.

New Transit Center ("C-1") Parcel (No Situs)
Levine Fricke Recon (LFR) performed a Phase I environmental site assessment of the proposed new transit center site (C-1 Parcel) in 2002. In February 2002 the transit center site was vacant undeveloped. The C-1 parcel was not listed in any of the agency databases of leaking underground storage tanks (USTs), above-ground storage tanks (ASTs), or hazardous waste sites. The C-1 Parcel appeared undeveloped in aerial photographs beginning in 1939 through 2002.

Old Transit Center ("PNR") Parcel
AllWest performed a Phase I environmental site assessment of the old transit center (PNR) parcel in 2005. This parcel is located between San Pablo Avenue and I-80, north of Sycamore Avenue. The PNR parcel was used historically from the 1800s to the 1960s by the Hercules Powder Company for explosives manufacturing. The PNR parcel was not used during 1953–1994. The southern portion of the PNR parcel was developed for WestCAT bus transit.

It is reported that storage bunkers were not identified on the PNR parcel; however, mounded fill of unknown origin was identified on the northern portion of the PNR parcel.[19] Hercules Powder Company bunkers, where encountered, have been associated with residues of trinitrotoluene (TNT), according to the HNTC EIR.

A Conoco Phillips product pipeline runs along the eastern boundary of the PNR parcel. The Conoco Phillips pipeline is shown and is discussed further in Section 6.1.

Carone Brothers and WC Drilling Parcel (1350 Willow Avenue)
Geocon, Inc. performed a Phase I environmental site assessment of the land involved in a Caltrans ramp relocation project in 2004. It is reported that Geocon observed active and inactive ASTs. A 4,000-gallon gasoline UST and a 250-gallon waste oil UST were removed in March 1992. Later, in March 2000, three temporary wells and three soil borings were drilled. Maximum concentrations were reported to be 5.6 mg/Kg as diesel in soil, 8,600 µg/L as diesel in groundwater and 4.1 µg/L as MtBE in groundwater. The California RWQCB closed the LUST case in August 2000. Geocon, Inc., also recommended investigations of aerial-deposited lead from State Highway 4 car exhaust.

[19] Mounded fill also was identified by the assessor on the east side of I-80 in the 6.25-acre Loop Ramp parcel. These areas of fill are not necessarily associated with Hercules Powder Company bunkers.

New Transit Center (C-1 Parcel), Loop Ramp Parcel, Caltrans Maintenance Facility, Carone Brothers and WC Drilling Parcel
RBF Consulting (RBF) performed a Phase I environmental site assessment of land involved in the HNTC project in 2007. RBF reported an AST, numerous 55-gallon drums, 5-gallon pails, and debris at the Caltrans Maintenance facility. A notice of violation was issued to Caltrans for improper storage in March 2007. RBF reported presence of demolition debris piles throughout the C-1 Parcel. RBF was unable to access the Carone Brothers and WC Drilling Parcel for inspection and instead view the parcel from the street.

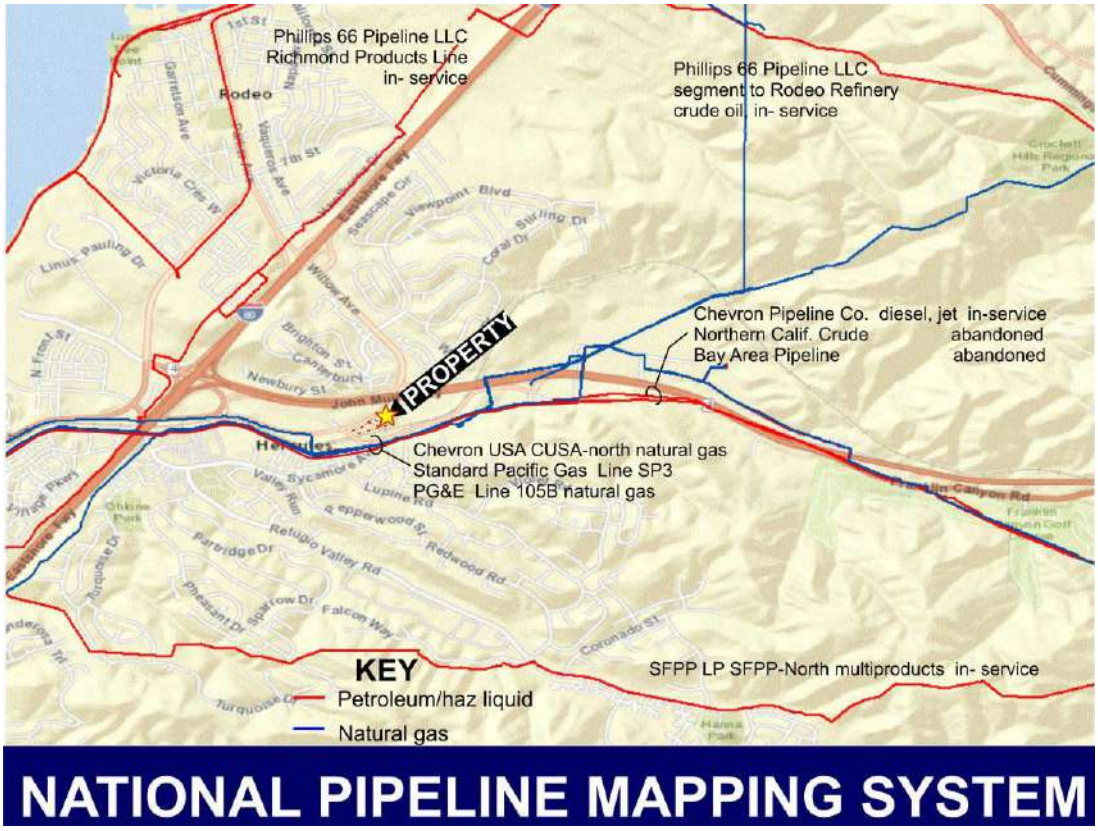
Petroleum Product Pipelines
The HNTC EIR reports that an active Chevron product pipeline and the inactive Old Valley Pipeline pass within 100 feet south of the Carone and WC Drilling parcel. The Old Valley Pipeline operated during 1902–1970s, conveying crude oil from Kern County to the San Francisco Bay Area. In the HNTC EIR, it was reported that the Old Valley Pipeline had leaked in 1975 at a location southwest of the HNTC planning area, and further that leaks have not been reported from the active Chevron product pipeline. The pipelines are shown and are discussed further in Section 6.1.

Summary
Previous Phase I environmental site assessments conducted for parcels collectively known as Hercules New Town Center (HNTC) do not reveal conditions that would pose a obvious likelihood or an apparent risk of environmental impairment for the owner of the Property. The previous work supports that Hercules Powder Company explosives manufacturing occurred off the Property and did not occur on any parcels adjoining the Property. Previous work also supports that explosives bunkers were not located in the HNTC planning area or the Property.

Various filling has occurred on HNTC parcels, some of which obviously is associated with grading disturbance or filling of the East Branch of Refugio Creek. Independent review of aerial photographic images show the east-west creek trace during 1938 through 1968. In 1958, the creek trace was apparent just west of the vicinity of Palm Avenue and the AT&SF Railroad and south of the railroad. Soon after 1968, segments of the original channel were diverted and filled. No segment of the East Branch of Refugio Creek was located on the Property. No evidence suggests that the Property itself has been filled.

6.0 RECOGNIZED ENVIRONMENTAL CONDITIONS

Hazardous materials, hazardous waste, or petroleum products were looked for and none was noted to be stored at the Property. Past uses of the Property are not associated with an obvious likelihood and an apparent risk of environmental impairment from waste burial or uses of pesticides, petroleum products or solvents.



6.1 Use of Hazardous Substances

Current Uses

Hazardous materials or petroleum products were looked for but were not observed to be stored or used on the Property. None would be expected in view of the undeveloped nature of the Property during 1916 to present.

According to the National Pipeline Mapping System (NPMS) web site, natural gas transmission pipeline and refined petroleum multi-products pipelines do not adjoin the Property. The nearest natural gas transmission and petroleum multi-product pipelines are located approximately 240–350 feet south of the Property (see NPMS illustration next page). In view of their locations and distances from the Property, these pipelines do not pose an obvious likelihood or an apparent risk of environmental impairment for the owner of the Property.

Historical Uses

The Property in the past has not been developed with occupied or unoccupied structures. No part of the Property has been used for an orchard during 1916–present. In specific regard to the former Hercules Powder Company explosives manufacturing , there is no obvious connection between the Property and former TNT manufacturing or bunkering. There is not an obvious likelihood or an apparent

risk of environmental impairment caused by past uses of the Property during 1916-present.

6.2 Solid and Liquid Waste Handling

Hazardous Waste Solids
Hazardous waste solids are not generated at the Property.

Hazardous Waste Liquids
Hazardous waste liquids are not generated by the Property. Storm water runoff is classified as overland sheet flow. Seasonal ponding apparent in aerial photographic images is interpreted to be caused by sheet flow collected at a topographic low point between the Property and AT&SF Railroad. Geotechnical investigation, which is routine before development, could resolve the true source of water and presence or absence of landslide activity. Such investigation is beyond the scope of ASTM E 1527-13.

6.3 On-Site and Off-Site Contamination

On-Site Release of Contamination
Evidence of on-site contamination was looked for but was not observed during the reconnaissance. Based on the reconnaissance, database search, review of aerial photographic images and historical topographic maps, and review of off-site investigations and groundwater monitoring reports, sources of hazardous materials and petroleum product release or trespass were not found to be present or were assessed not likely to be present on the Property.

Off-Site Release of Contamination
Off-site releases of gasoline and diesel fuel from past leaking underground storage tanks at the Caltrans Maintenance Facility and Carone Brothers lot are summarized in Section 5.3 and are classified as Historic RECs (HRECS) because they have been resolved without agency-imposed requirements for further actions. Off-site releases of gasoline and diesel fuel from past leaking underground storage tanks occurred in the 1990s at the Caltrans Maintenance Facility and Carone Brothers lot. The releases were located 500–750 feet from the Property (see Figure 2). These fuels releases and fuel releases at other more distant sites, which are identified in Sections 5.2 and 5.3, do not pose an obvious likelihood or an apparent risk of environmental impairment to the soil, soil vapor, or ground water of the Property.

6.4 Aboveground/Underground Storage Tanks (ASTs/USTs)

The Property was not reported to have any registered storage tanks for fuel or oil storage. Evidence of past ASTs or USTs was not observed at the Property during the reconnaissance, or during the assessor's review of aerial photographic images. The assessor found no obvious signs, direct or indirect evidence (*e.g.*, permit, database listing) of past ASTs or USTs on the Property.

The nearest petroleum storage tanks, which were used for storing gasoline and diesel fuel, were located at the Caltrans Maintenance Facility (1369 Willow Avenue, formerly Bayberry Avenue) and at the Carone Brothers Inc. lot (1350 Willow Avenue, formerly Bayberry Avenue). Figure 2 illustrates the locations of Carone Brothers lot (1350 Willow Avenue) and Caltrans Maintenance Facility (1369 Willow Avenue). In view of the analysis provided in Section 5.3 and

separation distance of 500–750 feet, these past releases do not pose an obvious likelihood or an apparent risk of environmental impairment for the owner of the Property.

6.5 Polychlorinated Biphenyls (PCBs)

Pole-mounted transformers were looked for and none was found above the Property. Older wet-style transformers may in general contain dielectric fluid which may contain PCBs.

6.6 Asbestos-Containing Materials (ACMs)

Naturally-containing asbestos mineral deposits are not expected in the area. Asbestos mineral is not among the product historically mined in the vicinity, which was primarily sand (California Division of Mines, 1949). There are no buildings on the Property; therefore, asbestos in building materials is not a business risk for the owner of the Property.

6.7 Lead-Based Paint and Lead Solder

The Property has not had building improvements during 1916-present. Without past buildings on the Property, there is not any obvious potential for lead residues left from lead-based paint or lead solder.

6.8 Radon

U.S. EPA recommends that the Maps of Radon Zones be supplemented with available local data. Several states, including California, have state radon coordinators or officers and have conducted radon surveys of indoor radon levels in housing. Based upon the California EPA, Department of Health Services (DHS), 90 percent of the locations tested in Contra Costa County had radon levels in indoor air less than 2 pCi/L. In approximately 3 percent of the locations tested in the county, radon concentrations were greater than or equal to 4 pCi/L. In Zip Code area 94547, next to which the Property is located, none of the seven (7) indoor air tests was reported to have a radon level greater than or equal to 4 pCi/L. Indoor air tests for radon were not reported in the DHS database for Zip Code area 94572.

Based upon the California radon survey data, therefore, there is not an expectation or obvious likelihood that radon levels indoors in occupied spaces in Zip Code 94547 exceed the U.S. EPA action level of 4 pCi/L. The kinds of soils expected to be located on the Property (see Figure 5) are not associated with naturally-occurring radon. The assessor conducting the research found no known ascertainable sources of manmade releases of radon around the Property; therefore, radon is not an REC for the Property.

7.0 CONCLUSIONS

The environmental assessor has performed a Phase I Environmental Site Assessment, in general conformance with the scope and limitations of ASTM Standard Practice E 1527-13, for the Property located east of Palm Avenue, between State Highway 4 and the AT&SF Railroad, at 1444 Willow Avenue, in Hercules, California, the Property. Any exception to,

or deletions from, the Standard Practice are described in Section 2.2 of this report. This assessment has revealed no evidence of a Recognized Environmental Condition (REC) in connection with the Property.

Based on the information obtained during this investigation by the environmental assessor, professional experience, and current regulatory guidelines, the following conclusions have been made:

- This assessment has revealed no historical evidence of structural improvements on the Property or use of the Property for surface impoundments of liquids, landfilling or other waste disposal.
- The Property has not been used for intensive agriculture (*e.g.*, row crops, orchards, vineyards, greenhouses, during 1938-present and such uses are not likely during 1916-present.
- Off-site releases of gasoline and diesel fuel from past leaking underground storage tanks are summatrized in Sections 5.3 and are classified in Section 6.3 as Historic RECs (HRECs) because they have been resolved without agency-imposed requirements for further actions. The assessor considered the available information and in consideration of the facts classified the proximate releases of gasoline and diesel fuel as HRECs which do not pose an obvious likelihood or an apparent risk of environmental impairment to the soil, soil vapor, or ground water of the Property.
- Natural gas transmission and petroleum multi-products pipelines are located off site at a distance 240–350 feet south of the Property. These pipelines do not have generally recognized notoriety as pollution sources in the community (Zilm, 2016).

Business Environmental Risks Business environmental risks are out-of-scope (ASTM E 1527-13) items. Examples of business environmental risks include asbestos-containing building materials, naturally-occurring asbestos, indoor air quality, radon, lead-based paint, and lead in drinking water. Business environmental risks, where present, can potentially increase the cost of development or use of Property. Business environmental risks were not identified in the research performed for this Phase I environmental site assessment.

Potential geotechnical and flooding hazards are separate matters, also non-scope items under ASTM E 1527-13, which are acknowledged in Section 3.4. Assessment of natural hazards (*e.g.*, flooding hazard, earth-shaking hazard, liquefaction potential and landslides) are outside the scope of ASTM E 1527-13. Information about non-scope items where encountered during the Phase I research has been reported to alert the Report User; however, the Phase I report itself does not constitute a geotechnical assessment or technical evaluation of other natural hazards.

Limiting Conditions–The Property had not been disked or mowed at the time of reconnaissance on July 27, 2016. This made viewing all of the surface of the Property impractical and may have obscured surface features such as minor stockpiles, surficial scarps, moist soil or ponded water.

8.0 RECOMMENDATIONS

8.1 Corrective & Regulatory Compliance Actions

Corrective actions or regulatory compliance actions are not recommended as none is warranted.

8.2 Subsequent Phase II Study

Phase I research has not identified present or imminent threatened releases of hazardous chemicals or petroleum products either on the Property or on sites adjoining the Property. Phase I research has identified past fuel releases on the adjoining Caltrans Maintenance Facility and Carone Brothers lot. In view of the available information and classification of the past fuel releases on the adjoining Caltrans Maintenance Facility and Carone Brothers lot as HRECs, subsequent Phase II investigation is not recommended.

In specific regard to minor dumping during 2000–2004, which is evident in aerial photographic images for 2004 and 2008 but not before or after, the small stockpiles were not observed during the reconnaissance in July 2016. The dumping was short in duration, without sign of increasing footprint after April 2004. Stockpiles are tentatively interpreted to have been dry inert materials such as concrete, sand or rock. Subsequent Phase II investigation, therefore, is not recommended.

8.3 Costs of Corrective & Regulatory Compliance Actions

Corrective actions and regulatory compliance actions are not recommended. Therefore, there are no reasonably foreseeable costs for such actions.

9.0 CERTIFICATION

This Phase I Environmental Site Assessment was performed by the undersigned, who is a California registered environmental assessor, Marc Papineau, in general conformance with the scope and limitations of ASTM Practice E 1527-13, for the Property located at 1444 Willow Avenue in Hercules, Contra Costa County, California. Any exceptions to, or deletions from, this practice are described in Section 2.2 of this report.

The undersigned assessor meets the qualifications requirements of the U.S. EPA All Appropriate Inquiries (AAIs) standard, Final Rule (40 CFR 312.10). AAIs were conducted in accordance with the requirements of the Final Rule except as noted in Section 2.2.

Claremont Homes, Inc., its successors or assigns, can rely upon the information presented herein as factual, true and accurate, and in general accordance with the ASTM E 1527-13 Standard for Practice.

Marc Papineau

Marc Papineau

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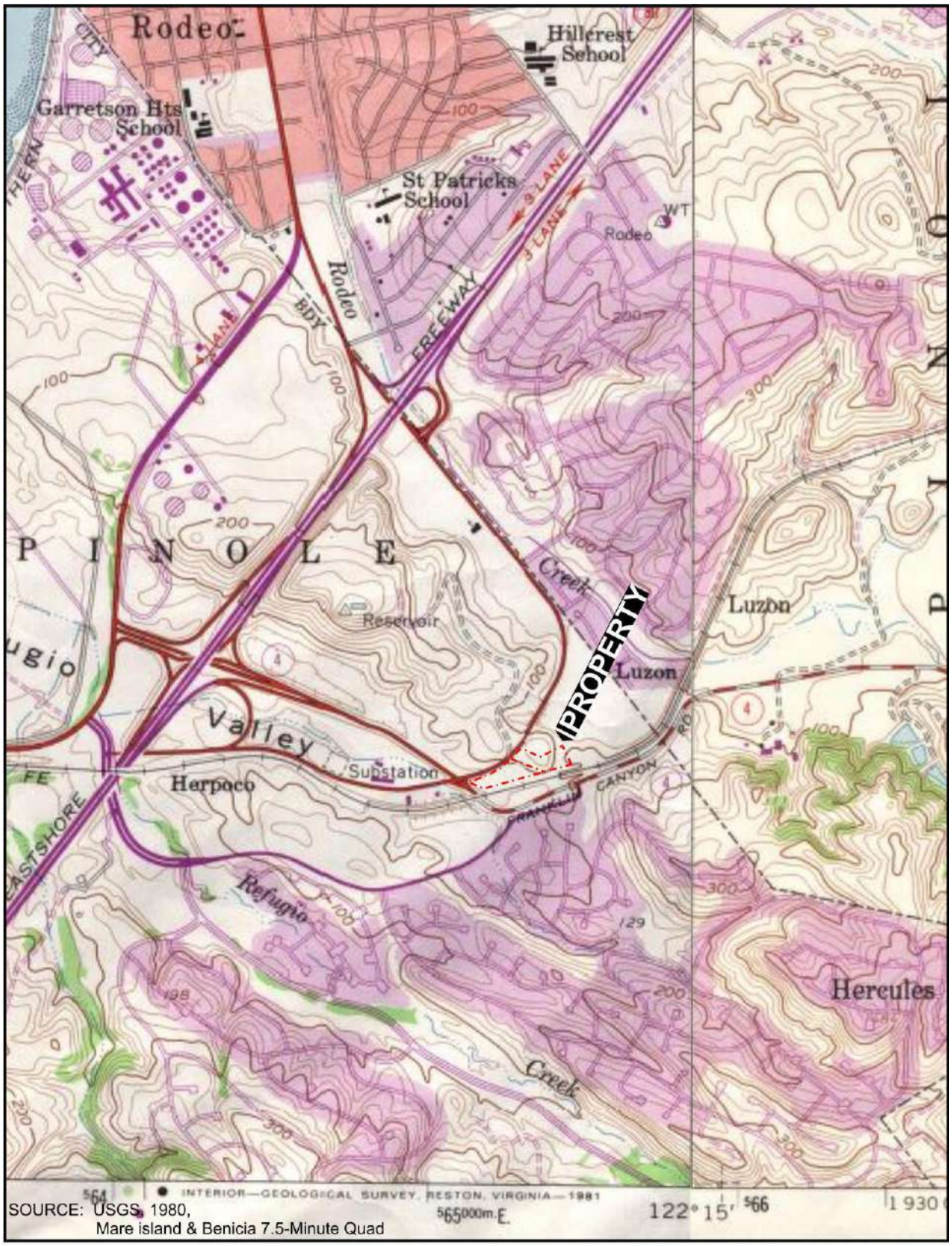


SOURCE: USGS, 1980,
Mare island & Benicia 7.5-Minute Quad

20 Years
1995-2015

N

0 2000 4000
FEET

Figure 1
Property Location Map
1444 Willow Avenue
Hercules, California

Figure 2

Neighborhood Map
1444 Willow Avenue
Hercules, California

N

0 500 1000
FEET

20 Years
1995-2015

Figure 3

Plot Plan
1444 Willow Avenue
Hercules, California

N

0 150 300
FEET

20 Years
1995-2015

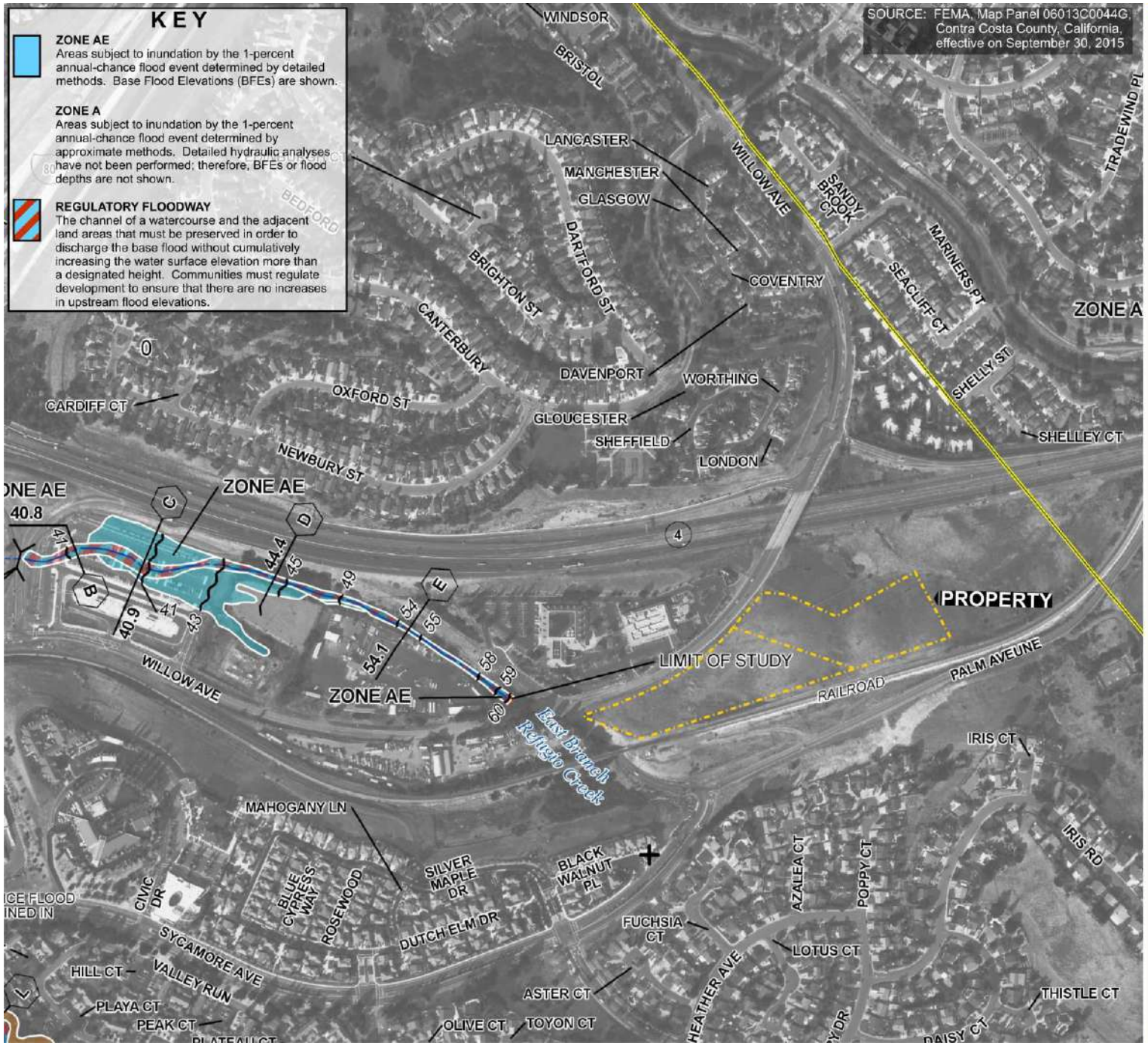
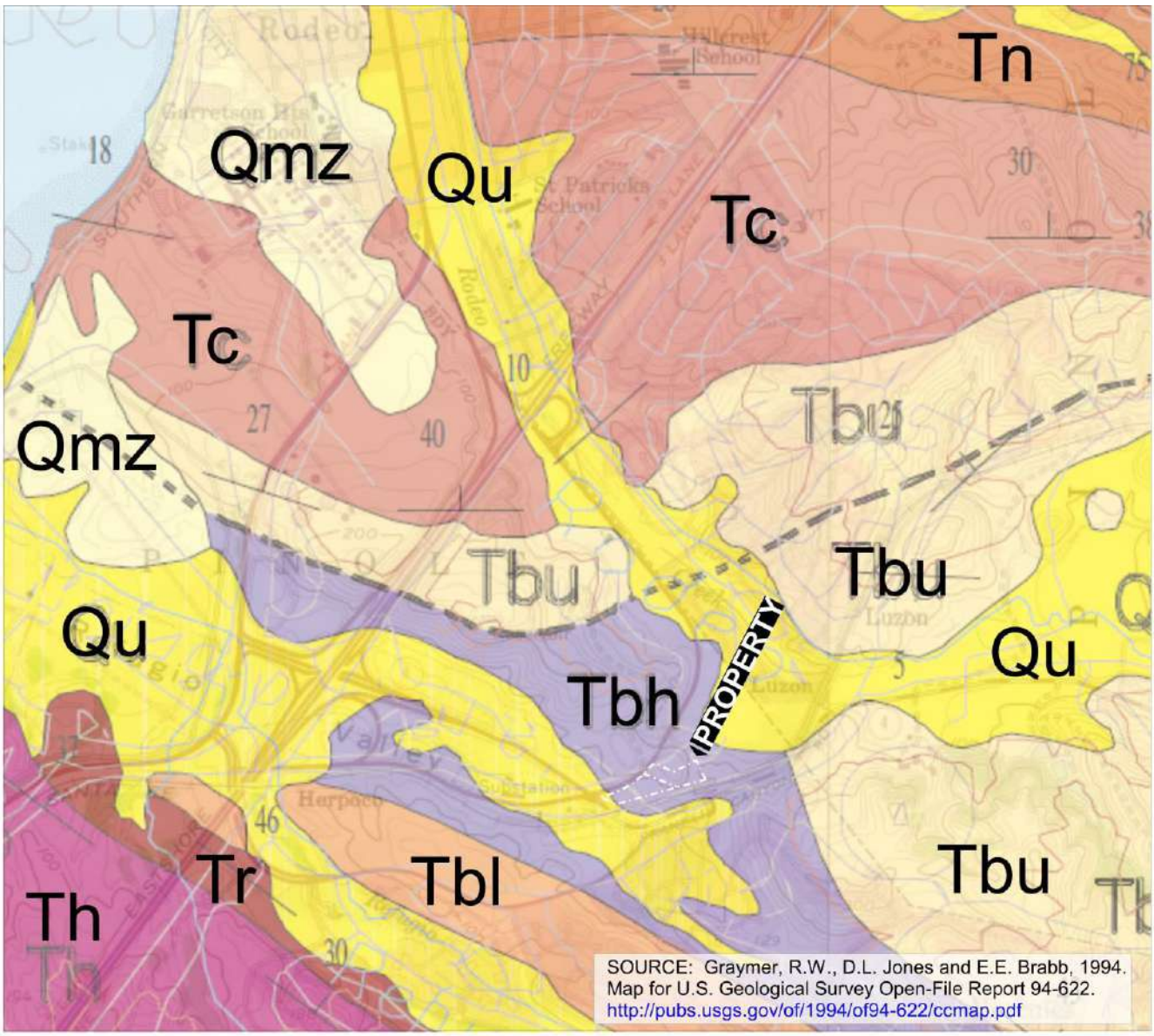


Figure 4

Flood Map
1444 Willow Avenue
and Surrounding Area
Hercules, California



Qmz Montezuma Formation (Pleistocene)--Poorly consolidated sand, with minor gravel, silt and clay.

Tbu Briones Formation (Miocene)--Sandstone, siltstone, conglomerate and shell breccia. Upper sandstone and shale member.

Tbl Briones Formation (Miocene)--Sandstone, siltstone, conglomerate and shell breccia. Lower sandstone and siltstone member.

Tbh Briones Formation (Miocene)--Hercules Shale Member, gray shale and siltstone.

Tc Cierbo Sandstone (Miocene)--Blue, brown, gray and white marine sandstone, minor conglomerate, tuff and shale.

Qu Surficial Deposits (Pleistocene and Holocene)

20 Years 1995-2015

N

0 2000

FEET

Figure 5
Geologic Map Showing the Property
Hercules, California

APPENDIX A
PHOTOGRAPHS

Plate 1. View from Willow Avenue Looking South across the Property in Hercules, California (July 27, 2016)

Plate 2. View from Willow Avenue Looking South across the Property in Hercules, California (July 27, 2016)

Plate 3. View along Willow Avenue Looking East along the Northern Side of the Property in Hercules, California (July 27, 2016)

Plate 4. View from Willow Avenue Looking East, Hercules, California (July 27, 2016)
NOTE: Property is Shown RIGHT.

Plate 5. View Looking West along the Atchison, Topeka & Santa Fe Railroad Tracks in Hercules, California ***NOTE: Palm Avenue Bridge in BACKGROUND.***

Plate 6. View Looking East along the Atchison, Topeka & Santa Fe Railroad Tracks in Hercules, California (July 27, 2016) ***NOTE: Property is Shown LEFT.***

Plate 7. View Looking West-Northwest across the Property and to the Adjoining Parcel, Valley Bible Church, Preschool & Daycare (1477 Willow Ave.), Hercules, California

Plate 8. View of the Property and Adjoining Preschool & Daycare at 1477 Willow Avenue, Hercules, California (July 27, 2016)

Plate 9. View Looking Northeast across the Eastern Half of the Property
NOTE: Windward Drive and Tradewind Place Neighborhood in BACKGROUND.

Plate 10. View Looking West along the Southern Side of the Property in Hercules, California (July 27, 2016) ***NOTE: Atchison, Topeka & Santa Fe FOREGROUND.***

APPENDIX B
DATA BASE SEARCH REPORT

1444 Willow Avenue
1444 WILLOW AVENUE HERCULES, CA
Prepared for: M. Papineau
Ref: 2016-027

Thursday, July 21, 2016

Environmental Radius Report

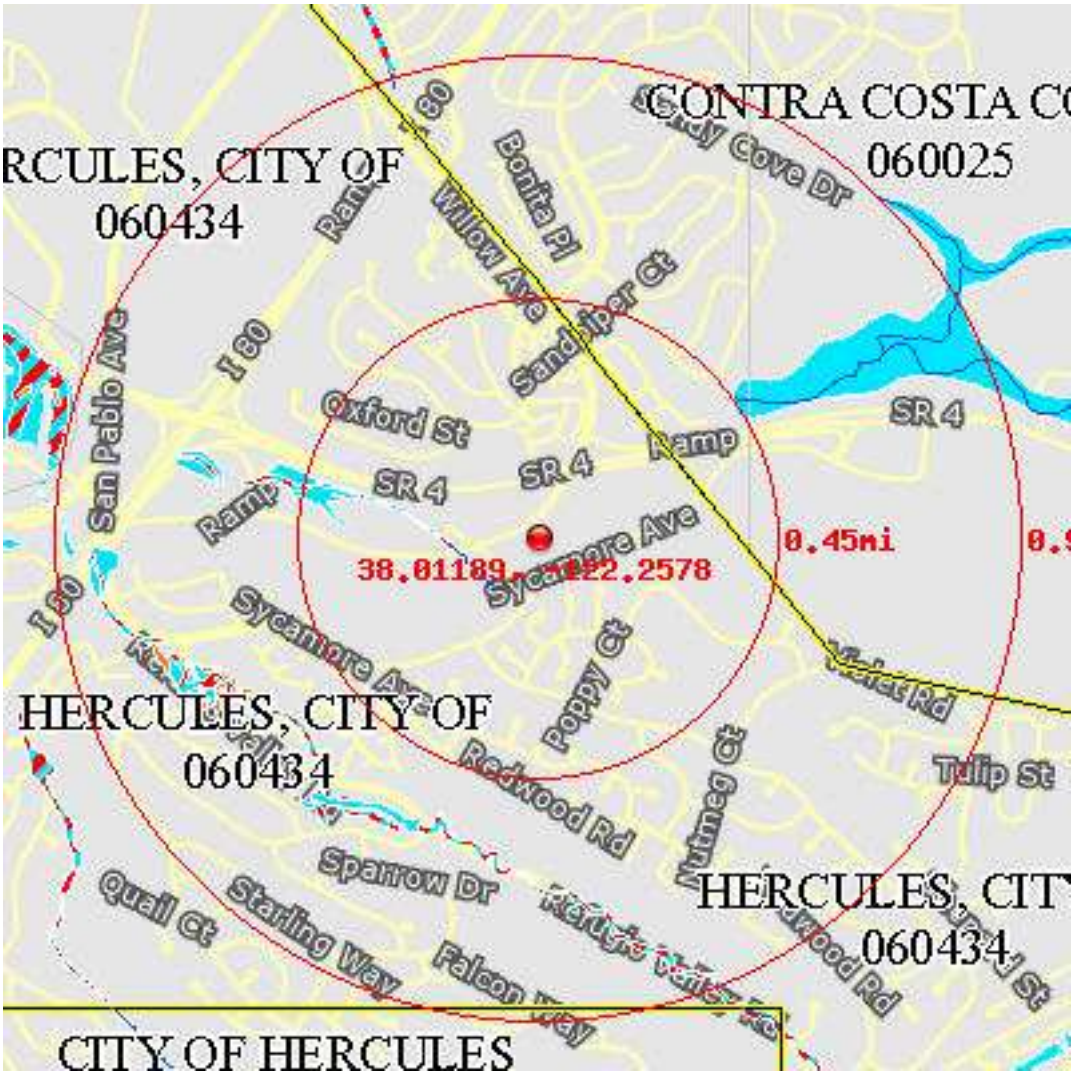
2055 E. Rio Salado Pkwy
Tempe, AZ 85381
480-967-6752

Summary

Flood Zones Hazard Map Federal Emergency Management Agency (FEMA)

	< 1/4	1/4 - 1/2	1/2 - 1
National Priorities List (NPL)			
CERCLIS List			
CERCLIS NFRAP			
RCRA CORRACTS Facilities			
RCRA non-CORRACTS TSD Facilities			
Federal Institutional Control / Engineering Control Registry			
Emergency Response Notification System (ERNS)			
US Toxic Release Inventory			1
US RCRA Generators (CESQG, SQG, LQG)			11
US ACRES (Brownfields)			
US NPDES			1
US Air Facility System (AIRS / AFS)			
CA Registered Underground Storage Tanks			4
CA Leaking Underground Storage Tanks		3	4
CA CERCLIS Equivalent			
CA NPL Equivalent			
CA Hazardous Waste Sites			
CA Activity Use Restrictions			
CA Spills, Leaks, Investigations, and Cleanups		3	6
CA Solid Waste Landfills			
CA Oil and Gas Wells			
CA Voluntary Cleanup Sites			

Flood Hazard Zones Map



- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area with Reduced Risk Due to Levee

National Priorities List (NPL)

This database returned no results for your area.

The Superfund Program, administered under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is an EPA Program to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. The NPL (National Priorities List) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation. The boundaries of an NPL site are not tied to the boundaries of the property on which a facility is located. The release may be contained with a single property's boundaries or may extend across property boundaries onto other properties. The boundaries can, and often do change as further information on the extent and degree of contamination is obtained.

CERCLIS List

This database returned no results for your area.

The United States Environmental Protection Agency (EPA) investigates known or suspected uncontrolled or abandoned hazardous substance facilities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). EPA maintains a comprehensive list of these facilities in a database known as the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS). These sites have either been investigated or are currently under investigation by the EPA for release or threatened release of hazardous substances. Once a site is placed in CERCLIS, it may be subjected to several levels of review and evaluation and ultimately placed on the National Priority List (NPL).

CERCLIS sites designated as "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an intitial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund Action or NPL consideration.

CERCLIS NFRAP

This database returned no results for your area.

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" NFRAP have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the site being placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration.
EPA has removed these NFRAP sites from CERCLIS to lift unintended barriers to the redevelopment of these properties. This policy change is part of EPA"s Brownfields Redevelopment Program to help cities, states, private investors and affected citizens promote economic redevelopment of unproductive urban sites.

RCRA CORRACTS Facilities

This database returned no results for your area.

The United States Environmental Protection Agency (EPA) regulates hazardous waste under the Resource Conservation and Recovery Act (RCRA). The EPA maintains the Corrective Action Report (CORRACTS) database of Resource Conservation and Recovery Act (RCRA) facilities that are undergoing "corrective action." A "corrective action order" is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may be required beyond the facility"s boundary and can be required regardless of when the release occurred, even if it predated RCRA.

RCRA non-CORRACTS TSD Facilities

This database returned no results for your area.

The United States Environmental Protection Agency (EPA) regulates hazardous waste under the Resource Conservation and Recovery Act (RCRA). The EPA"s RCRA Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilites database is a compilation by the EPA of facilities that report generation, storage, transportation, treatment, or disposal of hazardous waste. RCRA Permitted Treatment, Storage, Disposal Facilities (RCRA-TSD) are facilities which treat, store and/or dispose of hazardous waste.

Federal Institutional Control / Engineering Control Registry

This database returned no results for your area.

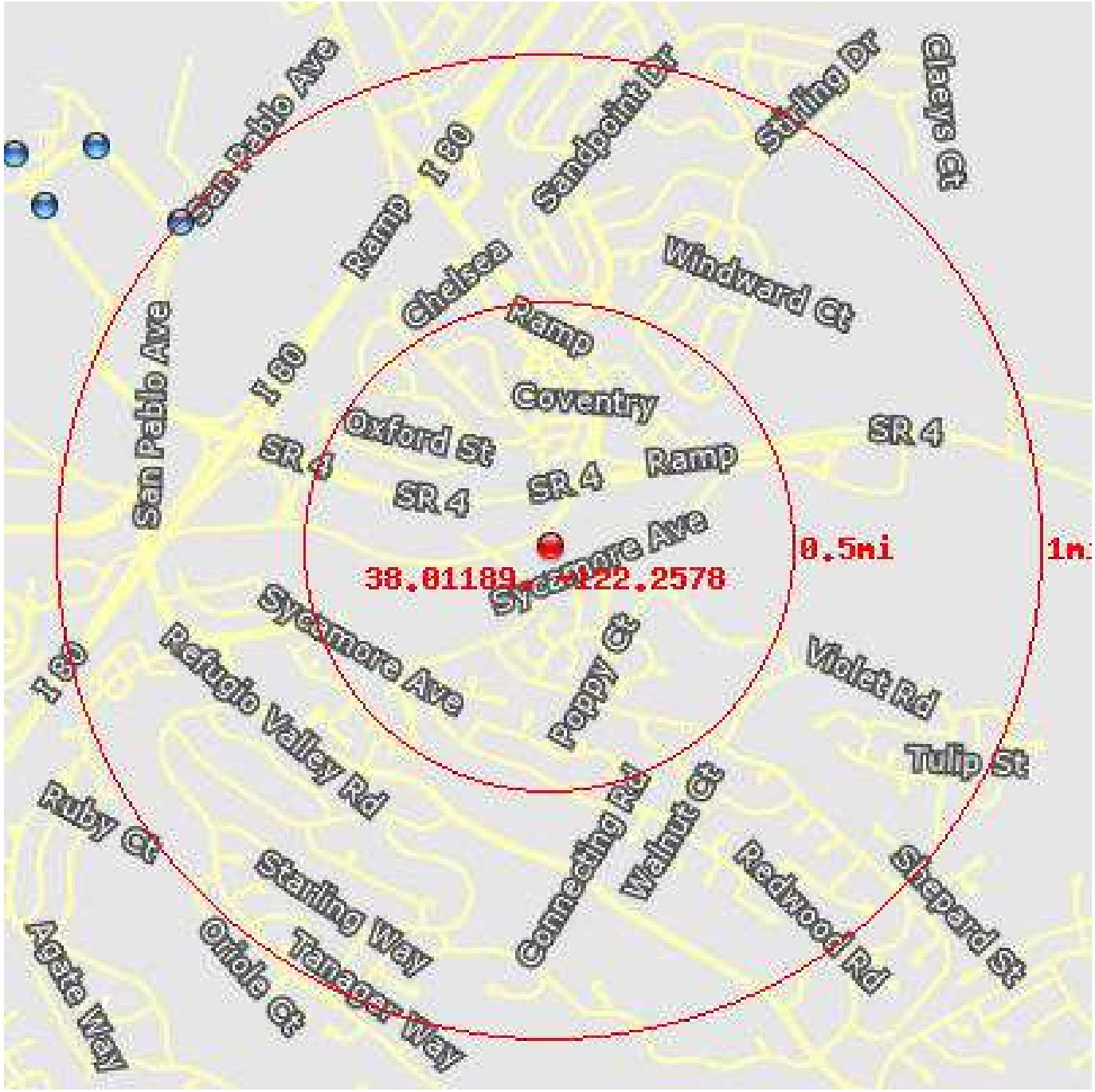
Federal Institutional Control / Engineering Control Registry

Emergency Response Notification System (ERNS)

This database returned no results for your area.

The Emergency Response Notification System (ERNS) is a national computer database used to store information on unauthorized releases of oil and hazardous substances. The program is a cooperative effort of the Environmental Protection Agency, the Department of Transportation Research and Special Program Administration"s John Volpe National Transportation System Center and the National Response Center. There are primarily five Federal statutes that require release reporting: the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) section 103; the Superfund Amendments and Reauthorization Act(SARA) Title III Section 304; the Clean Water Act of 1972(CWA) section 311(b)(3); and the Hazardous Material Transportation Act of 1974(HMTA section 1808(b).

US Toxic Release Inventory



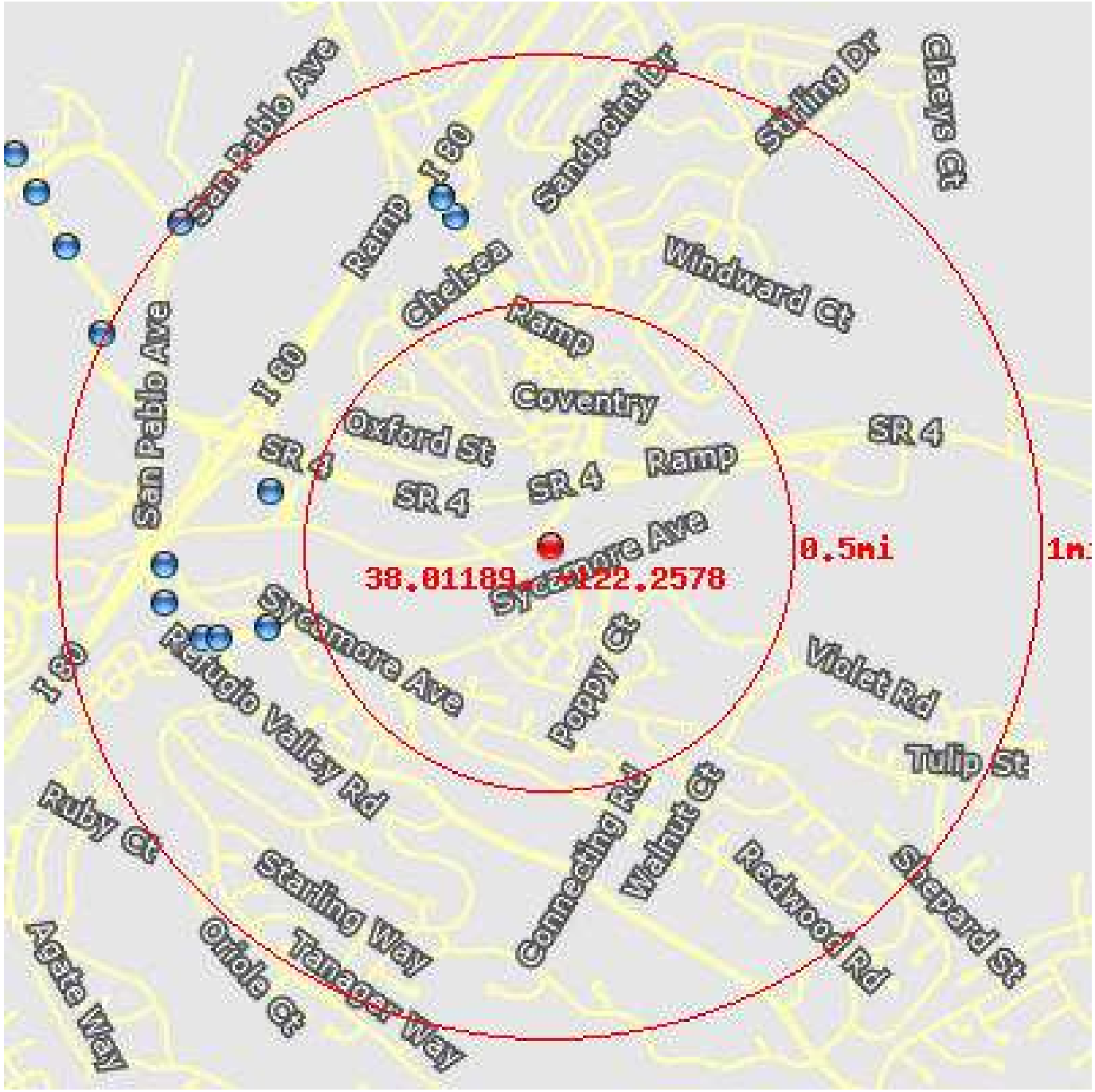
This database returned 1 results for your area.

The Toxics Release Inventory (TRI) is a publicly available EPA database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities. TRI reporters for all reporting years are provided in the file.

US Toxic Release Inventory

Location	38.02128, -122.2714
Distance to site	5194 ft / 0.98 mi NW
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110017428540***
EPA Identifier	110017428540
Primary Name	HERCULES L.L.C. DBA NEW PACIFIC PROPERTIES
Address	4901 SAN PABLO AVENUE
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547
NAICS Codes	324110
SIC Codes	2911
SIC Descriptions	PETROLEUM REFINING
Programs	ICIS, NCDB, NPDES, OIL, OTAQREG, RBLC, RCRAINFO, TRIS
Program Interests	AIR MAJOR, COMPLIANCE ACTIVITY, FORMAL ENFORCEMENT ACTION, GASOLINE AND DIESEL PRODUCERS, ICIS-NPDES NON-MAJOR, SPCC, SQG, TRI REPORTER
Updated On	13-MAR-14
Recorded On	12-APR-04
NAICS Descriptions	PETROLEUM REFINERIES.
Program ID	CA0005096

US RCRA Generators (CESQG, SQG, LQG)



This database returned 11 results for your area.

The United States Environmental Protection Agency (EPA) regulates hazardous waste under the Resource Conservation and Recovery Act (RCRA). EPA maintains a database of facilities, which generate hazardous waste or treat, store, and/or dispose of hazardous wastes.

Conditionally Exempt Small Quantity Generators (CESQG) generate 100 kilograms or less per month of hazardous waste, or 1 kilogram or less per month of acutely hazardous waste.

Small Quantity Generators (SQG) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Large Quantity Generators (LQG) generate 1,000 kilograms per month or more of hazardous waste, or more than 1 kilogram per month of acutely hazardous waste.

US RCRA Generators (CESQG, SQG, LQG)

Location	38.0134, -122.2681
Distance to site	2999 ft / 0.57 mi W
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002781758***
EPA Identifier	110002781758
Primary Name	CALTRANS DISTRICT 4
Address	1369 BAYBERRY AVE
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547
Programs	RCRAINFO
Program Interests	SQG
Updated On	08-AUG-10
Recorded On	01-MAR-00
Program ID	CAD982028490

Location	38.00943, -122.2682
Distance to site	3130 ft / 0.59 mi W
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110024427672***
EPA Identifier	110024427672
Primary Name	THE HOME DEPOT #1044
Address	1625 SYCAMORE AVE
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547
NAICS Codes	444110
Programs	CA-CERS, EIS, RCRAINFO
Program Interests	CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY, SQG, STATE MASTER
Updated On	22-JUL-14
Recorded On	22-FEB-06
NAICS Descriptions	HOME CENTERS.
Program ID	10516311

US RCRA Generators (CESQG, SQG, LQG)

Location	38.02142, -122.2613
Distance to site	3617 ft / 0.68 mi N
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002888126***
EPA Identifier	110002888126
Primary Name	WILLOW CLEANERS
Address	844 WILLOW AVENUE SUITE 8-5
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547-3862
NAICS Codes	812320
Programs	EIS, HWTS-DATAMART, RCRAINFO
Program Interests	CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY, SQG, STATE MASTER
Updated On	30-NOV-12
Recorded On	01-MAR-00
NAICS Descriptions	DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED).
Program ID	288411

Location	38.00908, -122.27
Distance to site	3646 ft / 0.69 mi W
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002621280***
EPA Identifier	110002621280
Primary Name	RALEYS 352
Address	1592 SYCAMORE AVE
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547
Programs	RCRAINFO
Program Interests	SQG
Updated On	26-JAN-12
Recorded On	01-MAR-00
Program ID	CA0000927509

US RCRA Generators (CESQG, SQG, LQG)

Location	38.00913, -122.2706
Distance to site	3820 ft / 0.72 mi W
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110042178149***
EPA Identifier	110042178149
Primary Name	RITE AID 5923
Address	1560 SYCAMORE AVE
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547
Programs	RCRAINFO
Program Interests	CESQG
Updated On	28-MAR-14
Recorded On	24-SEP-10
Program ID	CAR000211730

Location	38.02197, -122.2617
Distance to site	3847 ft / 0.73 mi N
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002623858***
EPA Identifier	110002623858
Primary Name	TOSCO NORTHWEST CO NO 11154
Address	828 WILLOW AVE
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547
Programs	RCRAINFO
Program Interests	SQG
Updated On	26-JAN-12
Recorded On	01-MAR-00
Program ID	CA0001021732

US RCRA Generators (CESQG, SQG, LQG)

Location	38.02197, -122.2617
Distance to site	3847 ft / 0.73 mi N
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110031401454***
EPA Identifier	110031401454
Primary Name	CONOCOPHILLIPS SITE #2705430
Address	828 WILLOW AVE
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547
Programs	BR, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, SQG
Updated On	26-JAN-12
Recorded On	22-OCT-07
Program ID	CAL000276992

Location	38.01127, -122.2721
Distance to site	4104 ft / 0.78 mi W
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002949098***
EPA Identifier	110002949098
Primary Name	PACIFIC BELL
Address	1540 SYCAMORE AVENUE
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547-1702
NAICS Codes	517110
Programs	EIS, HWTS-DATAMART, RCRAINFO
Program Interests	CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY, SQG, STATE MASTER
Updated On	30-NOV-12
Recorded On	01-MAR-00
NAICS Descriptions	WIRED TELECOMMUNICATIONS CARRIERS.
Program ID	171911

US RCRA Generators (CESQG, SQG, LQG)

Location	38.01017, -122.272
Distance to site	4137 ft / 0.78 mi W
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002894039***
EPA Identifier	110002894039
Primary Name	CREEKSIDE CLEANERS
Address	1511 SYCAMORE AVENUE UNIT G
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547-1769
NAICS Codes	812320
Programs	CA-CERS, EIS, HWTS-DATAMART, RCRAINFO
Program Interests	CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY, SQG, STATE MASTER
Updated On	15-SEP-13
Recorded On	01-MAR-00
NAICS Descriptions	DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED).
Program ID	352611

Location	38.02128, -122.2714
Distance to site	5194 ft / 0.98 mi NW
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110017428540***
EPA Identifier	110017428540
Primary Name	HERCULES L.L.C. DBA NEW PACIFIC PROPERTIES
Address	4901 SAN PABLO AVENUE
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547
NAICS Codes	324110
SIC Codes	2911
SIC Descriptions	PETROLEUM REFINING
Programs	ICIS, NCDB, NPDES, OIL, OTAQREG, RBLC, RCRAINFO, TRIS
Program Interests	AIR MAJOR, COMPLIANCE ACTIVITY, FORMAL ENFORCEMENT ACTION, GASOLINE AND DIESEL PRODUCERS, ICIS-NPDES NON-MAJOR, SPCC, SQG, TRI REPORTER
Updated On	13-MAR-14
Recorded On	12-APR-04
NAICS Descriptions	PETROLEUM REFINERIES.
Program ID	CA0005096

US RCRA Generators (CESQG, SQG, LQG)

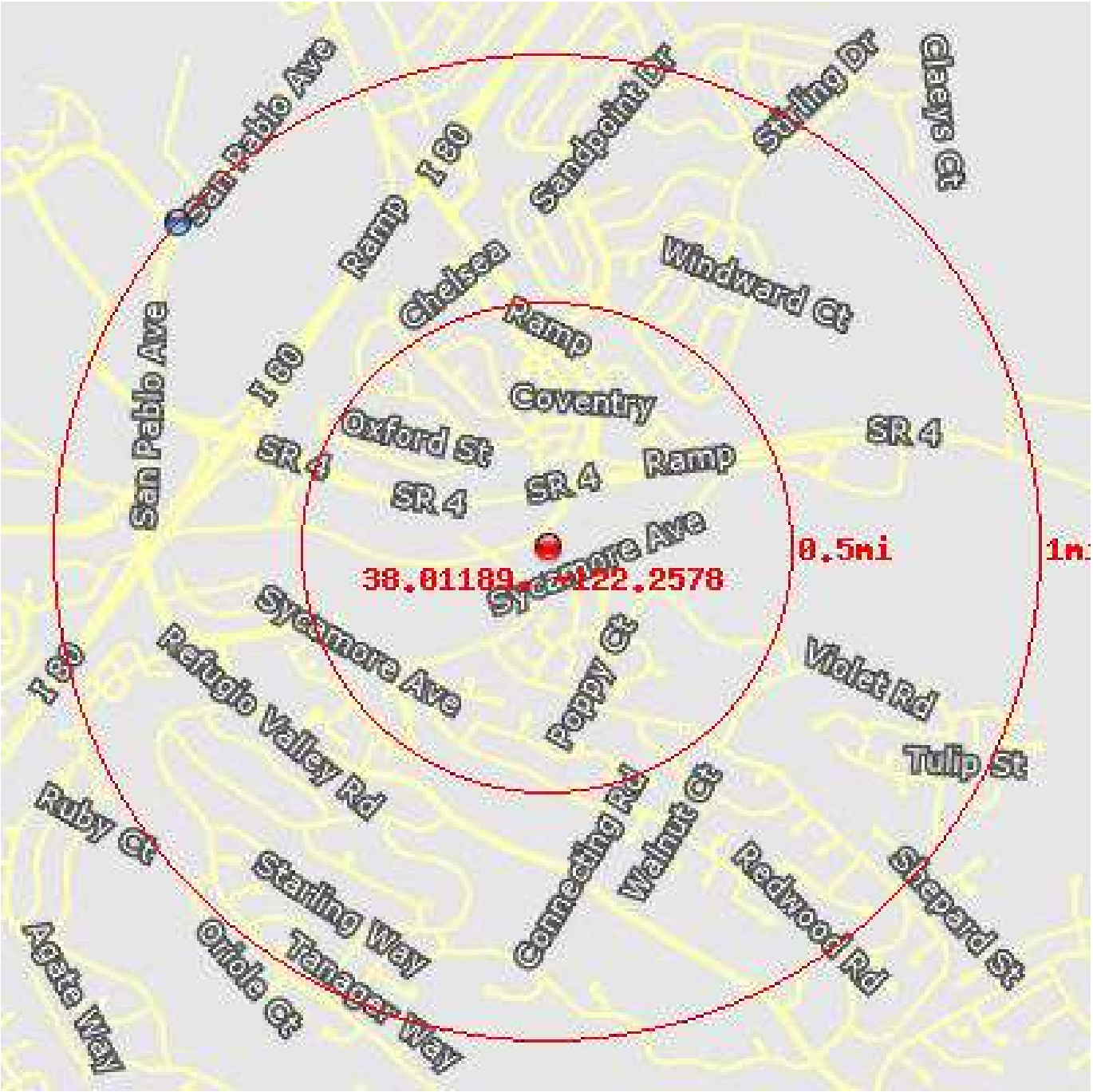
Location	38.01801, -122.2744
Distance to site	5254 ft / 1 mi W
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110012196382***
EPA Identifier	110012196382
Primary Name	P T R L WEST INC
Address	625 ALFRED NOBEL DR
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	945471815
Programs	HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	27-AUG-12
Recorded On	01-MAR-00
Program ID	CAR000095000

US ACRES (Brownfields)

This database returned no results for your area.

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 protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. The Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an online database for Brownfields Grantees to electronically submit data directly to The United States Environmental Protection Agency (EPA)

US NPDES



This database returned 1 results for your area.

The NPDES module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

US NPDES

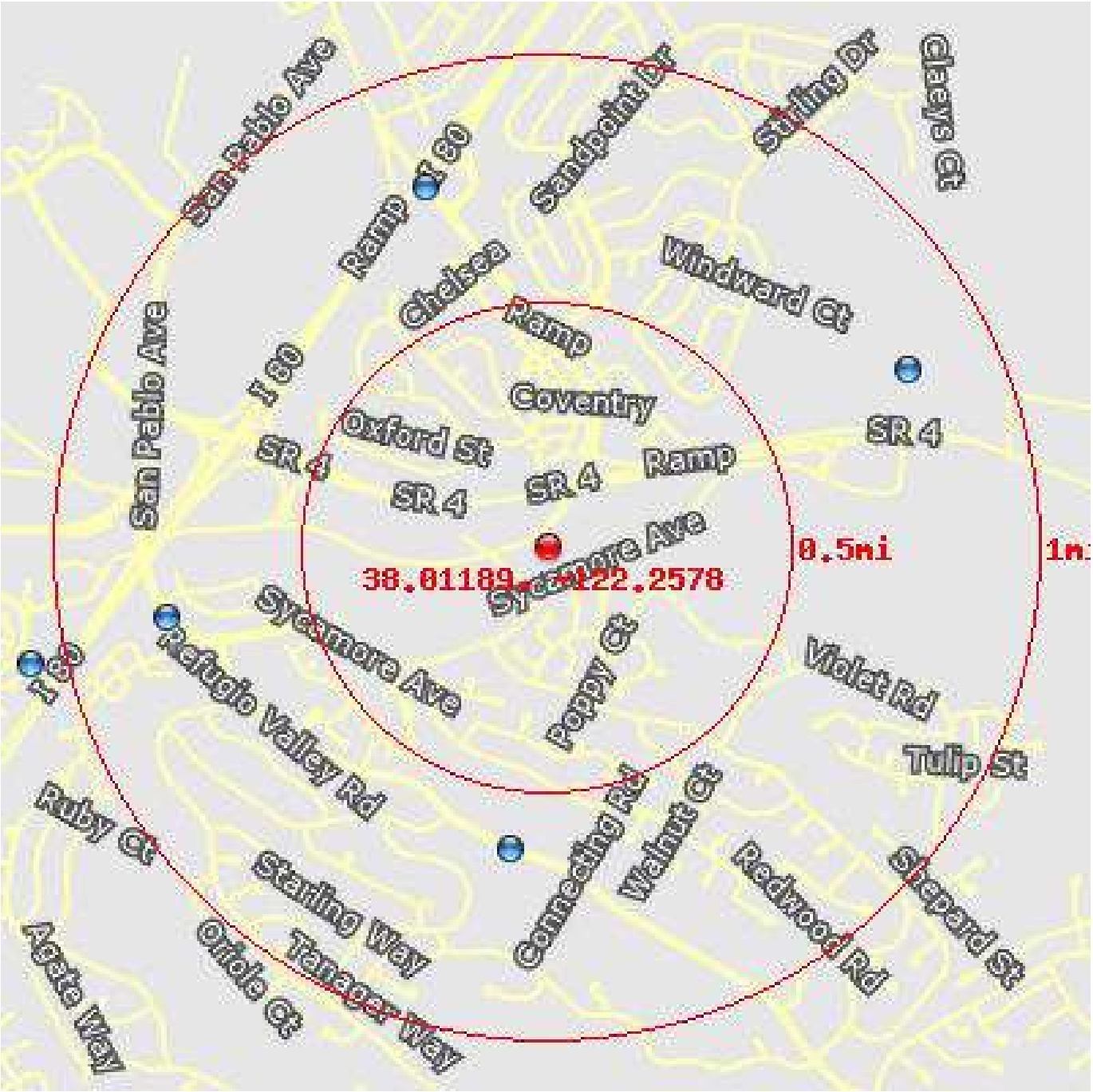
Location	38.02128, -122.2714
Distance to site	5194 ft / 0.98 mi NW
Info URL	***http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110017428540***
EPA Identifier	110017428540
Primary Name	HERCULES L.L.C. DBA NEW PACIFIC PROPERTIES
Address	4901 SAN PABLO AVENUE
City	HERCULES
County	CONTRA COSTA
State	CA
Zipcode	94547
NAICS Codes	324110
SIC Codes	2911
SIC Descriptions	PETROLEUM REFINING
Programs	ICIS, NCDB, NPDES, OIL, OTAQREG, RBLC, RCRAINFO, TRIS
Program Interests	AIR MAJOR, COMPLIANCE ACTIVITY, FORMAL ENFORCEMENT ACTION, GASOLINE AND DIESEL PRODUCERS, ICIS-NPDES NON-MAJOR, SPCC, SQG, TRI REPORTER
Updated On	13-MAR-14
Recorded On	12-APR-04
NAICS Descriptions	PETROLEUM REFINERIES.
Program ID	CA0005096

US Air Facility System (AIRS / AFS)

This database returned no results for your area.

The Air Facility System (AIRS / AFS) contains compliance and permit data for stationary sources of air pollution (such as electric power plants, steel mills, factories, and universities) regulated by EPA, state and local air pollution agencies. The information in AFS is used by the states to prepare State Implementation Plans (SIPs) and to track the compliance status of point sources with various regulatory programs under Clean Air Act.

CA Registered Underground Storage Tanks



This database returned 4 results for your area.

Underground storage tanks containing hazardous or petroleum substances are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The State Water Resources Control Board"s GeoTracker database provides the list of permitted Underground Storage Tanks (UST).

CA Registered Underground Storage Tanks

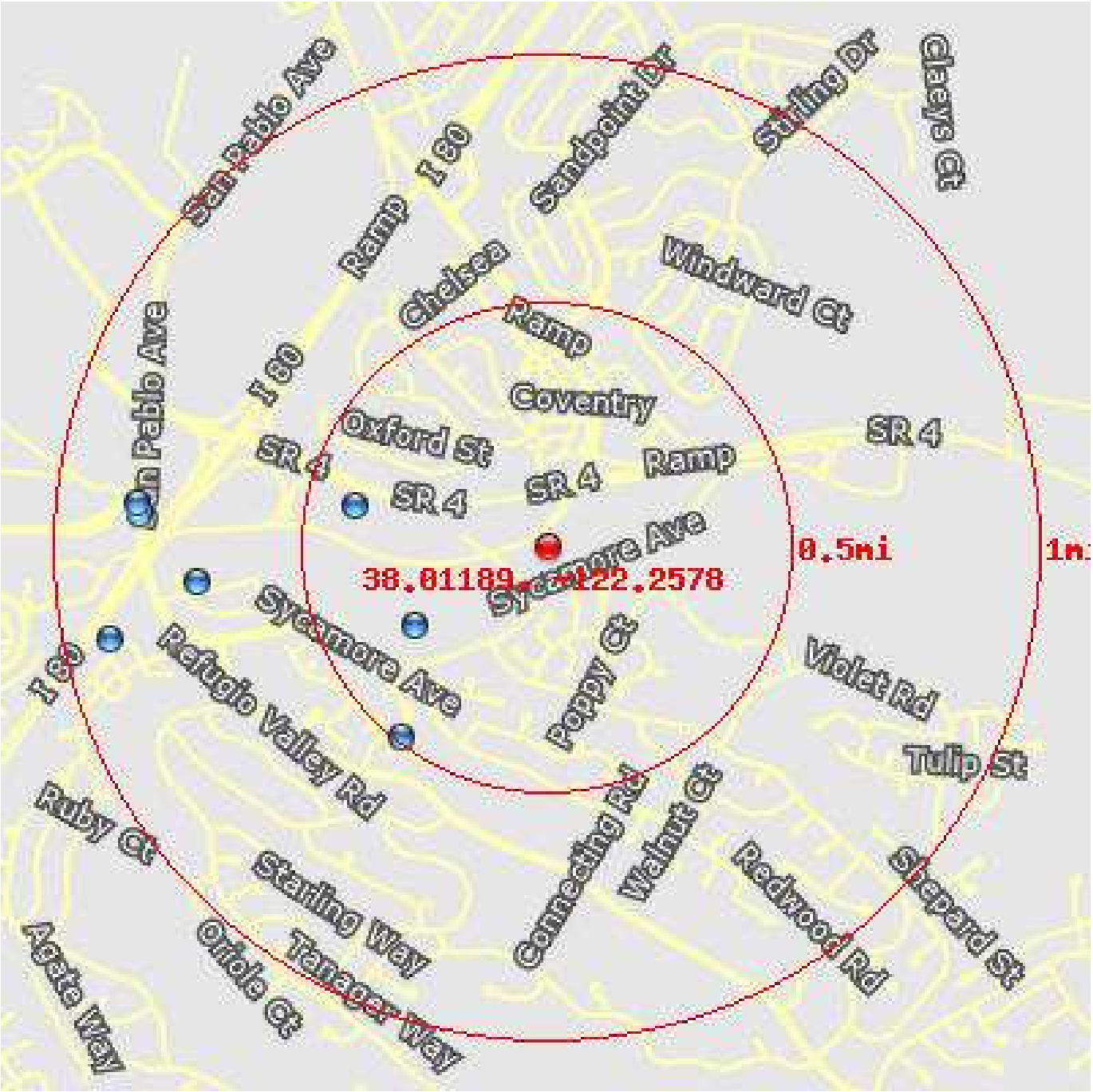
Location	38.00297, -122.2591
Distance to site	3276 ft / 0.62 mi S
Site Name	RODEO-HERCULES FIRE DIS/STA 76
Permitting Agency	CONTRA COSTA COUNTY
Address	1680 REFUGIO VALLEY RD
City	HERCULES
Zip	94547
County	Contra Costa

Location	38.02234, -122.2622
Distance to site	4015 ft / 0.76 mi NW
Site Name	CIRCLE K 76 #2705430
Permitting Agency	CONTRA COSTA COUNTY
Address	828 WILLOW AVE
City	HERCULES
Zip	94547
County	Contra Costa

Location	38.00972, -122.2719
Distance to site	4118 ft / 0.78 mi W
Site Name	PACIFIC BELL/HERCULES WB185
Permitting Agency	CONTRA COSTA COUNTY
Address	1540 SYCAMORE AVE
City	HERCULES
Zip	94547
County	Contra Costa

Location	38.01695, -122.2444
Distance to site	4279 ft / 0.81 mi E
Site Name	TOSCO REFINING CO
Permitting Agency	CONTRA COSTA COUNTY
Address	2101 FRANKLIN CANYON RD
City	RODEO
Zip	94572
County	Contra Costa

CA Leaking Underground Storage Tanks



This database returned 7 results for your area.

Information on Leaking underground storage tanks containing hazardous or petroleum substances is maintained in the State Water Resources Control Board"s GeoTracker database.

CA Leaking Underground Storage Tanks

Location	38.0095, -122.2626
Distance to site	1629 ft / 0.31 mi SW
Site Name	PACIFIC REFINING COMPANY
Site Street Number	4901
Site Street Name	SAN PABLO AVE
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	2007-06-20
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Gasoline
Contaminated Medium	Other Groundwater (uses other than drinking water)

Location	38.013, -122.2649
Distance to site	2076 ft / 0.39 mi W
Site Name	BP
Site Street Number	828
Site Street Name	WILLOW AVE
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	1997-02-20
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Gasoline
Contaminated Medium	Other Groundwater (uses other than drinking water)

CA Leaking Underground Storage Tanks

Location	38.0062, -122.2632
Distance to site	2590 ft / 0.49 mi SW
Site Name	CARONE BROS INC
Site Street Number	1350
Site Street Name	BAYBERRY WY
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	2000-06-21
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Gasoline
Contaminated Medium	Other Groundwater (uses other than drinking water)

Location	38.0108, -122.2707
Distance to site	3724 ft / 0.71 mi W
Site Name	PACIFIC BELL
Site Street Number	1540
Site Street Name	SYCAMORE AVE
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	1997-03-21
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Diesel
Contaminated Medium	Other Groundwater (uses other than drinking water)

CA Leaking Underground Storage Tanks

Location	38.01276, -122.2728
Distance to site	4327 ft / 0.82 mi W
Site Name	WEST CONTRA COSTA TRANSIT
Site Street Number	100
Site Street Name	SYCAMORE AVE
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	2008-12-03
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Gasoline
Contaminated Medium	Other Groundwater (uses other than drinking water)

Location	38.01305, -122.273
Distance to site	4386 ft / 0.83 mi W
Site Name	Caltrans Hercules Maintenance Station
Site Street Number	1369
Site Street Name	Bayberry ave
Site City	HERCULES
Site State	CA
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	2002-09-26
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Gasoline
Contaminated Medium	Under Investigation

Location	38.0091, -122.274
Distance to site	4763 ft / 0.9 mi W
Site Name	BUILDING ASSOCIATES INC
Site Street Number	100
Site Street Name	JASPER CT
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	1998-10-06
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Diesel
Contaminated Medium	Soil

CA CERCLIS Equivalent

This database returned no results for your area.

The Department of Toxic Substances Controls (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) EnviroStor database identifies CERCLIS equivalent sites as "State Response". These are sites known or suspected to contain uncontrolled or abandoned hazardous substance facilities.

CA NPL Equivalent

This database returned no results for your area.

The Department of Toxic Substances Controls (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) EnviroStor database identifies sites on the National Priority List (NPL). This is the equivalent of the Federal NPL identifying facilities and study areas with known contamination that are given priority for remedial action.

CA Hazardous Waste Sites

This database returned no results for your area.

The Department of Toxic Substances Controls (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) EnviroStor database identifies Hazardous Waste Sites. These include...

All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.

All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.

All sites listed pursuant to Section 25356 of the Health and Safety Code.

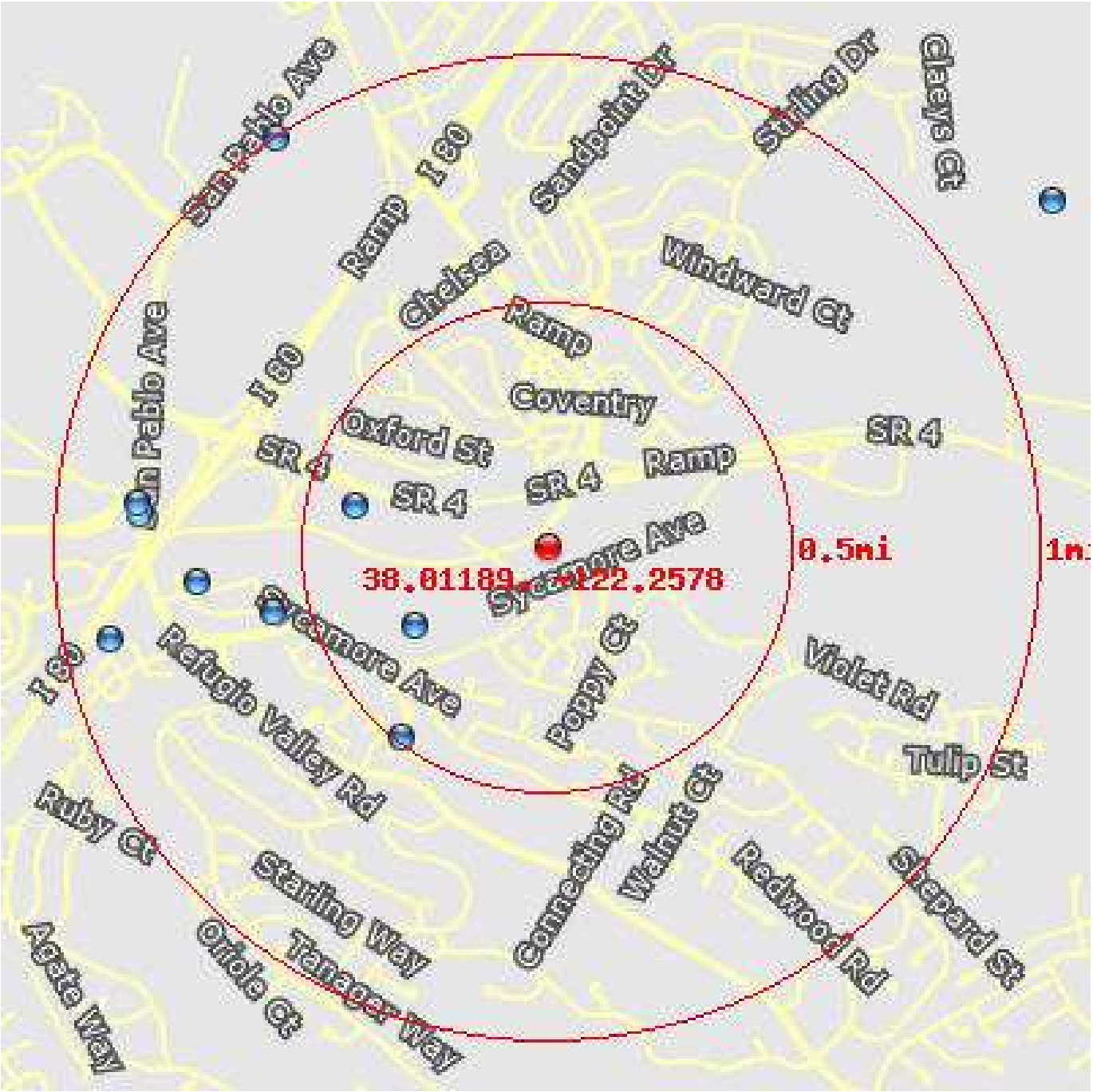
All sites included in the Abandoned Site Assessment Program.

CA Activity Use Restrictions

This database returned no results for your area.

Activity and Use Limitations (AULs), also known as Environmental Land-Use Controls (LUCs) – An AUL is a restriction, covenant or notice concerning the use of real property, which is imposed on real property. AULs and LUCs are further categorized as Institutional Controls (ICs) and Engineering Controls (ECs). An IC is a legal or regulatory restriction on the use of a property, limiting the use of groundwater and excavations or preventing such businesses as day care centers or schools on the property. An EC involves physical means of restricting site access or use in order to prevent the spreading or exposure of a contaminant. Frequently implemented engineering controls include requiring black top on the surface, building of structures to prevent exposure or even notices to the public that are posted on the grounds warning of contaminants.

CA Spills, Leaks, Investigations, and Cleanups



This database returned 9 results for your area.

The Spills, Leaks, Investigation & Cleanup (SLIC) Program is responsible for site investigation and corrective action involving sites not overseen by the Underground Tank Program and the Well Investigation Program. This program is not restricted to particular pollutants or environments; rather, the program covers all types of pollutants (such as solvents, petroleum fuels, and heavy metals) and all environments (including surface and water, groundwater, and the vadose zone). Upon confirming that an unauthorized discharge is polluting or threatens to pollute regional water bodies, the Regional Board oversees site investigation and corrective action. Statutory authority for the program is derived from the California Water Code, Division 7, Section 13304. Guidelines for site investigation and remediation are promulgated in State Board Resolution No. 92-49 entitled Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304.

CA Spills, Leaks, Investigations, and Cleanups

Location	38.0095, -122.2626
Distance to site	1629 ft / 0.31 mi SW
Site Name	PACIFIC REFINING COMPANY
Site Street Number	4901
Site Street Name	SAN PABLO AVE
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	2007-06-20
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Gasoline
Contaminated Medium	Other Groundwater (uses other than drinking water)

Location	38.013, -122.2649
Distance to site	2076 ft / 0.39 mi W
Site Name	BP
Site Street Number	828
Site Street Name	WILLOW AVE
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	1997-02-20
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Gasoline
Contaminated Medium	Other Groundwater (uses other than drinking water)

CA Spills, Leaks, Investigations, and Cleanups

Location	38.0062, -122.2632
Distance to site	2590 ft / 0.49 mi SW
Site Name	CARONE BROS INC
Site Street Number	1350
Site Street Name	BAYBERRY WY
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	2000-06-21
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Gasoline
Contaminated Medium	Other Groundwater (uses other than drinking water)

Location	38.0099, -122.268
Distance to site	3002 ft / 0.57 mi W
Site Name	HERCULES INDUSTRIAL PROPERTY
Site Street Number	560
Site Street Name	RAILROAD AVE
Site City	HERCULES
Site State	CA
Site County	Contra Costa
Status	Open - Inactive
Status Date	2009-06-02
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)

Location	38.0108, -122.2707
Distance to site	3724 ft / 0.71 mi W
Site Name	PACIFIC BELL
Site Street Number	1540
Site Street Name	SYCAMORE AVE
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	1997-03-21
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Diesel
Contaminated Medium	Other Groundwater (uses other than drinking water)

CA Spills, Leaks, Investigations, and Cleanups

Location	38.01276, -122.2728
Distance to site	4327 ft / 0.82 mi W
Site Name	WEST CONTRA COSTA TRANSIT
Site Street Number	100
Site Street Name	SYCAMORE AVE
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	2008-12-03
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Gasoline
Contaminated Medium	Other Groundwater (uses other than drinking water)

Location	38.01305, -122.273
Distance to site	4386 ft / 0.83 mi W
Site Name	Caltrans Hercules Maintenance Station
Site Street Number	1369
Site Street Name	Bayberry ave
Site City	HERCULES
Site State	CA
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	2002-09-26
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Gasoline
Contaminated Medium	Under Investigation

Location	38.0091, -122.274
Distance to site	4763 ft / 0.9 mi W
Site Name	BUILDING ASSOCIATES INC
Site Street Number	100
Site Street Name	JASPER CT
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	1998-10-06
Lead Agency	SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency	CONTRA COSTA COUNTY
Contaminant	Diesel
Contaminated Medium	Soil

CA Spills, Leaks, Investigations, and Cleanups

Location	38.02373, -122.2678
Distance to site	5184 ft / 0.98 mi NW
Site Name	PACIFIC REFINING CO
Site Street Number	4901
Site Street Name	SAN PABLO AVE
Site City	HERCULES
Site State	CA
Site Zip	94547
Site County	Contra Costa
Status	Completed - Case Closed
Status Date	2001-09-01

CA Solid Waste Landfills

This database returned no results for your area.

The Solid Waste Landfill List (SWLF) database is provided by the California Solid Waste Information System (SWIS) and consists of both open as well as closed inactive solid waste disposal facilities and transfer stations pursuant to the Solid Waste Management and Resource Recovery Act of 1972.

CA Oil and Gas Wells

This database returned no results for your area.

The California Department of Conservation, Division of Oil, Gas and Thermal Resources (DOGGR) was created to serve the needs of the state, local governments, and industry by regulating statewide oil and gas activities with uniform laws and regulations. The DOGGR supervises the drilling, operation, maintenance, and plugging and abandonment of onshore and offshore oil, gas, and geothermal wells, preventing damage to: (1) life, health, property, and natural resources; (2) underground and surface waters suitable for irrigation or domestic use; and (3) oil, gas and geothermal reservoirs.

CA Voluntary Cleanup Sites

This database returned no results for your area.

The Department of Toxic Substances Controls (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) EnviroStor database identifies Voluntary Cleanup sites. These sites include low threat level properties with confirmed or unconfirmed releases. The responsible parties have requested that DTSC oversee investigation and/or cleanup activities and agreed to offset DTSC expenses.

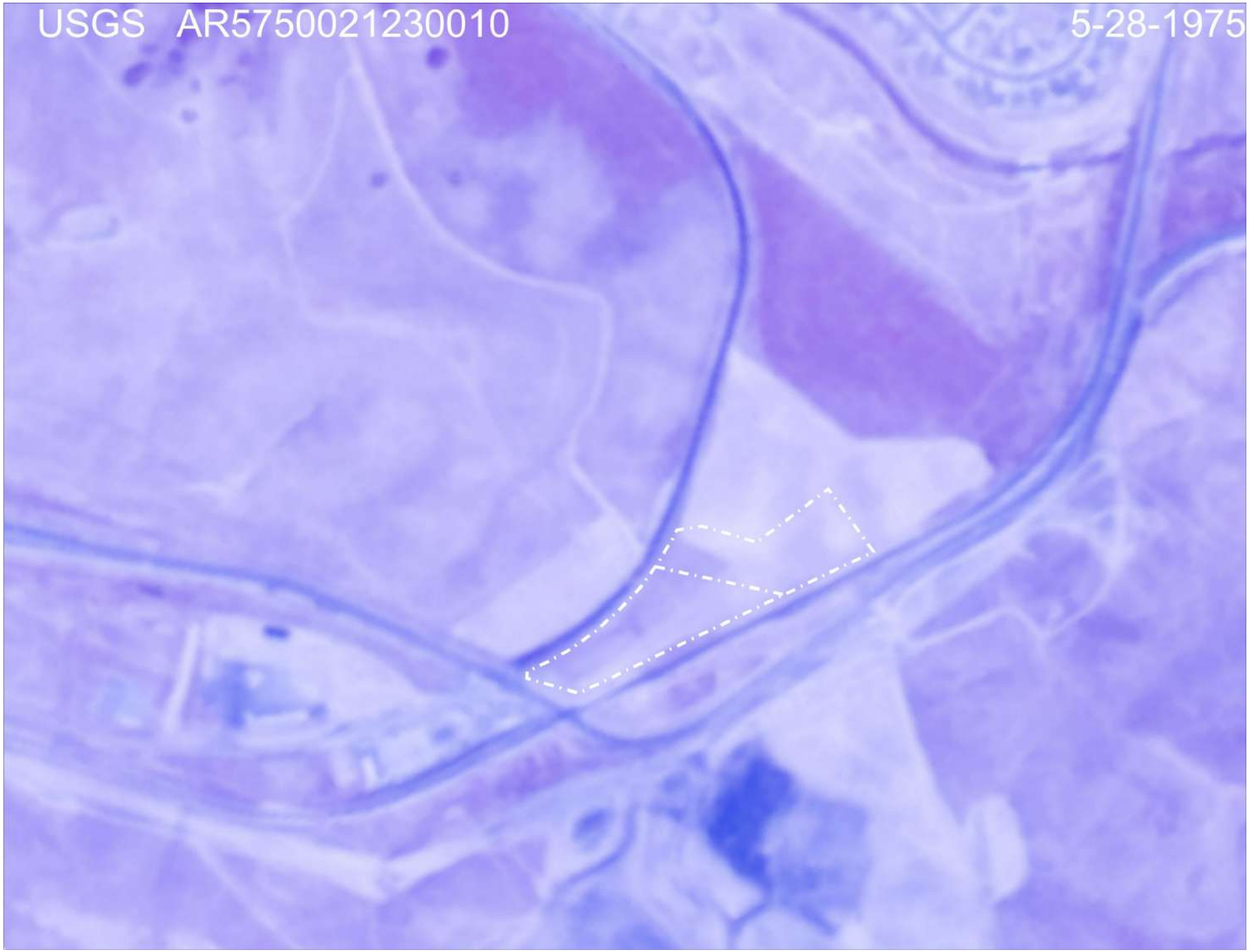
APPENDIX C
AERIAL PHOTOGRAPHIC IMAGES

SF Estuary Institute
12-31-1938
Image SF Estuary Institute/Contra Costa County/UCB
Google ea

USGS GS-EF
2-110
3-1-1948

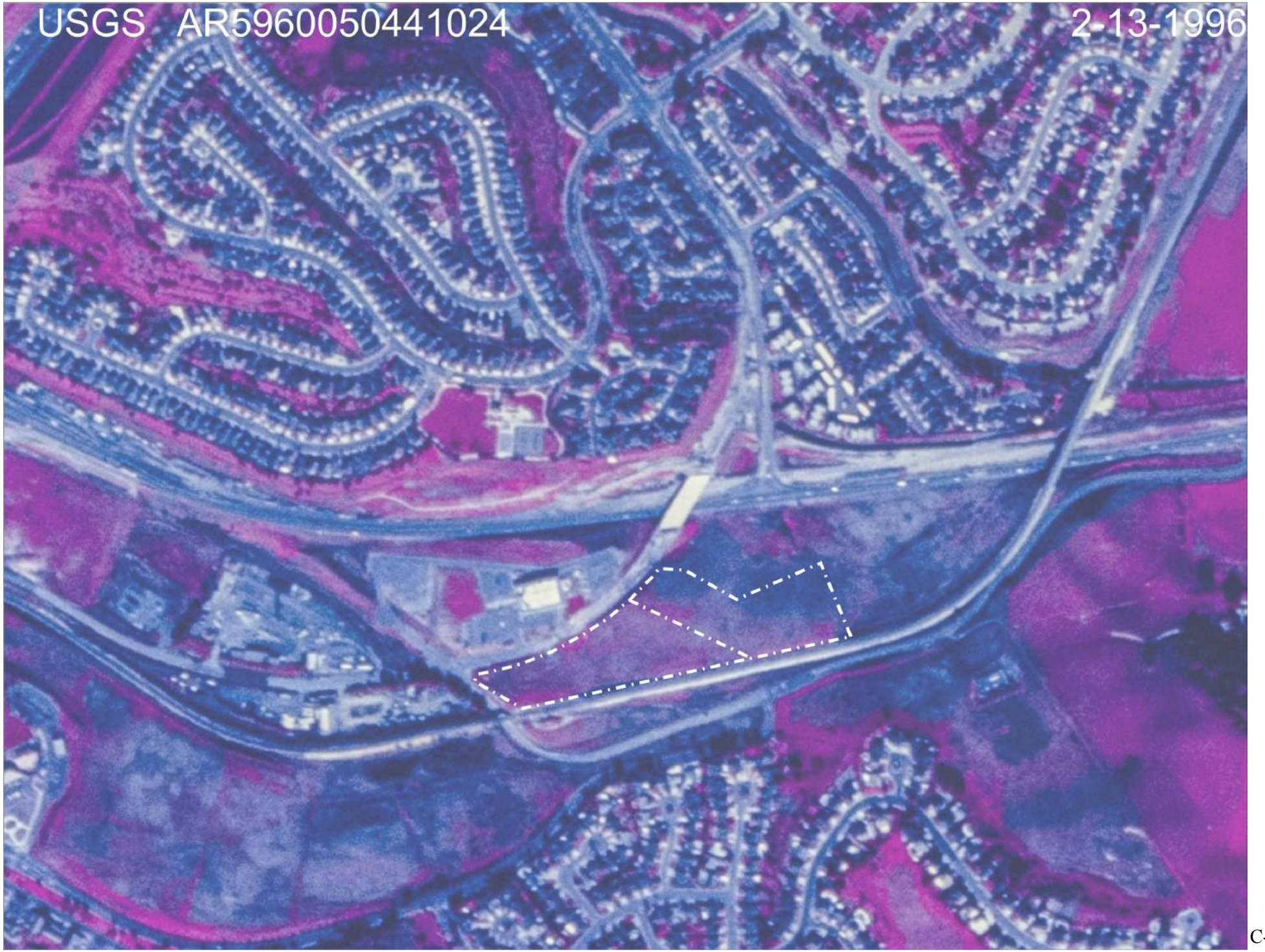
USGS GS-VUO
1-157
7-25-1958

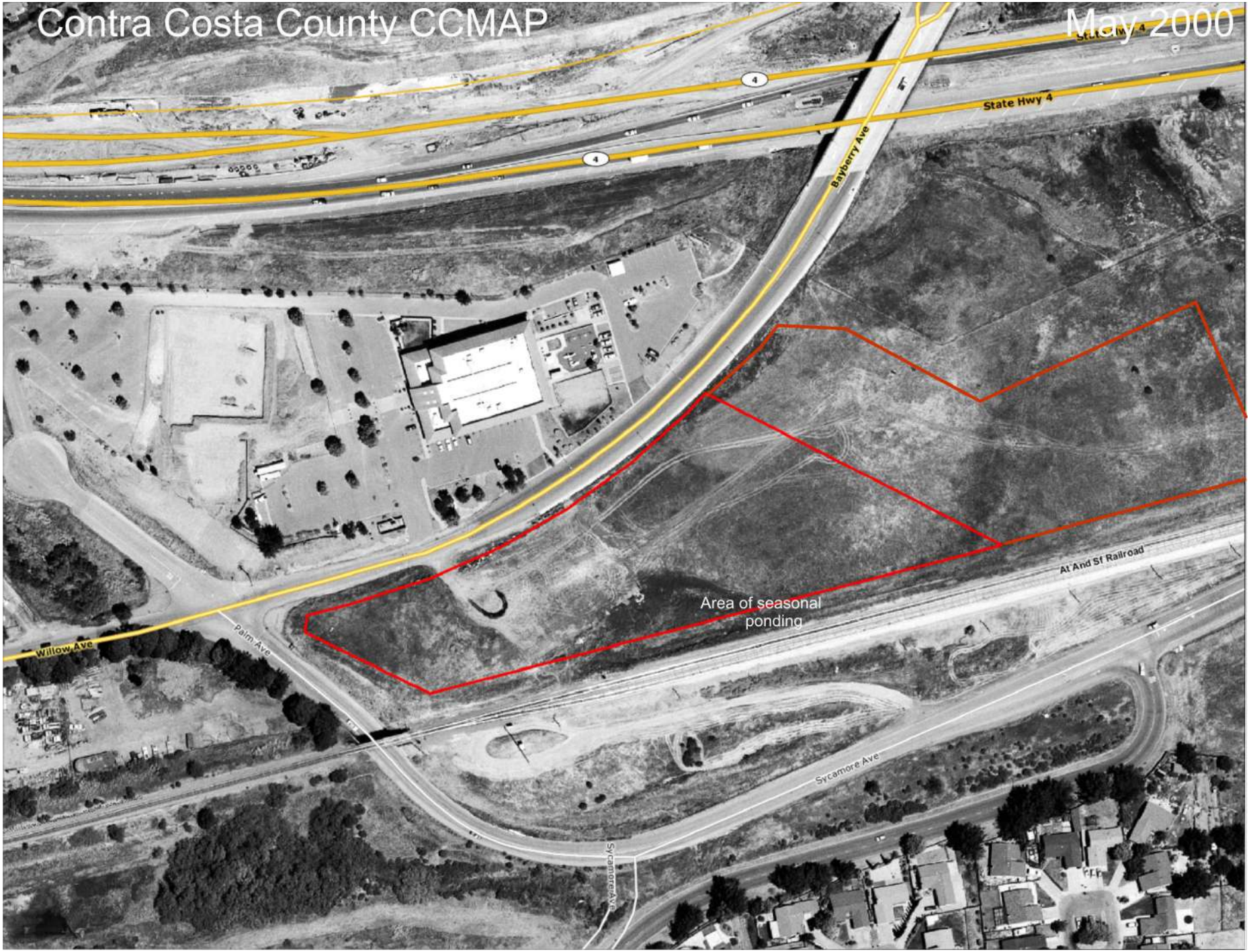
USGS GS-VBZJ
2-105
4-20-1968

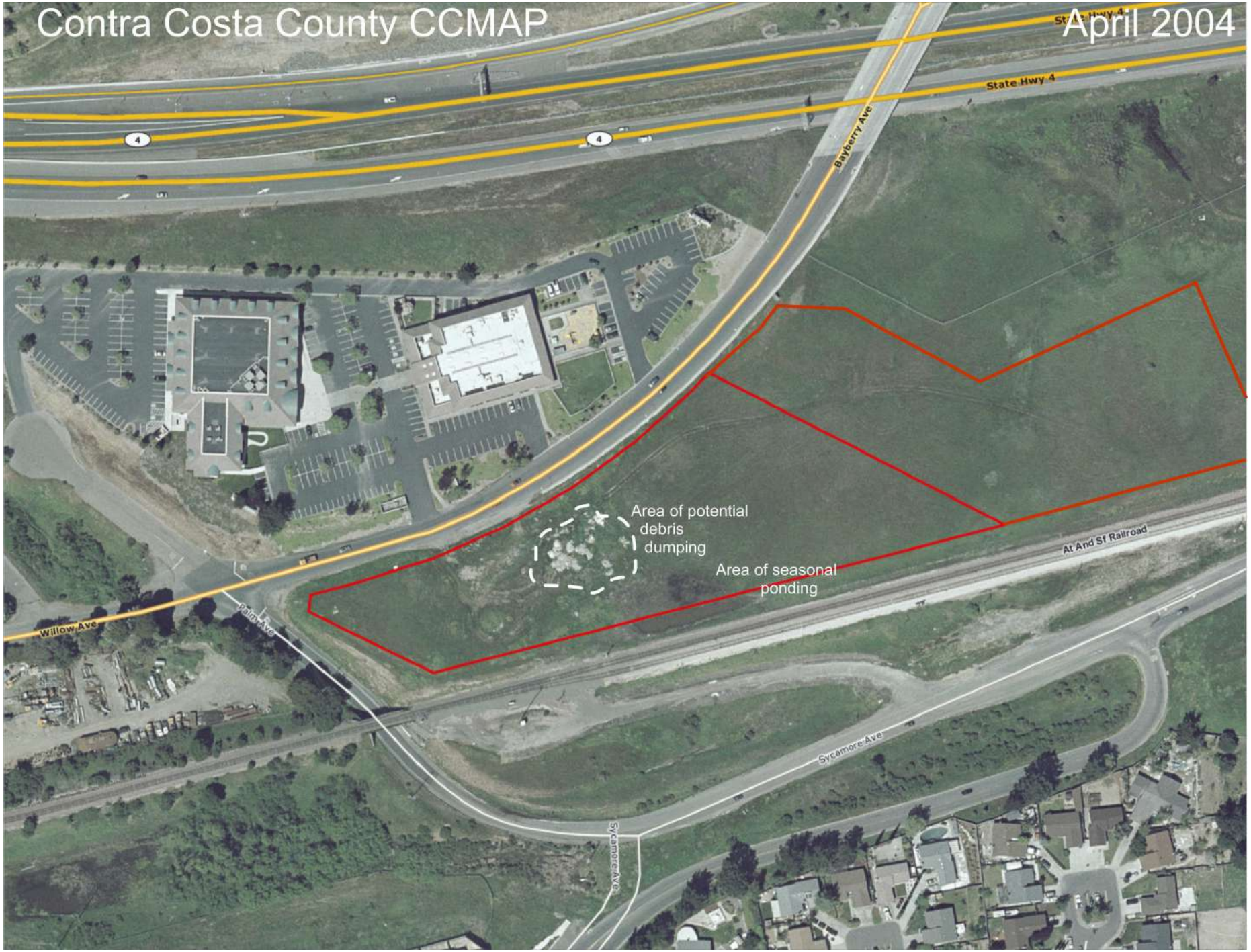

USGS AR5750021230010
5-28-1975

USGS GS-VEZR
1-50
10-1-1980

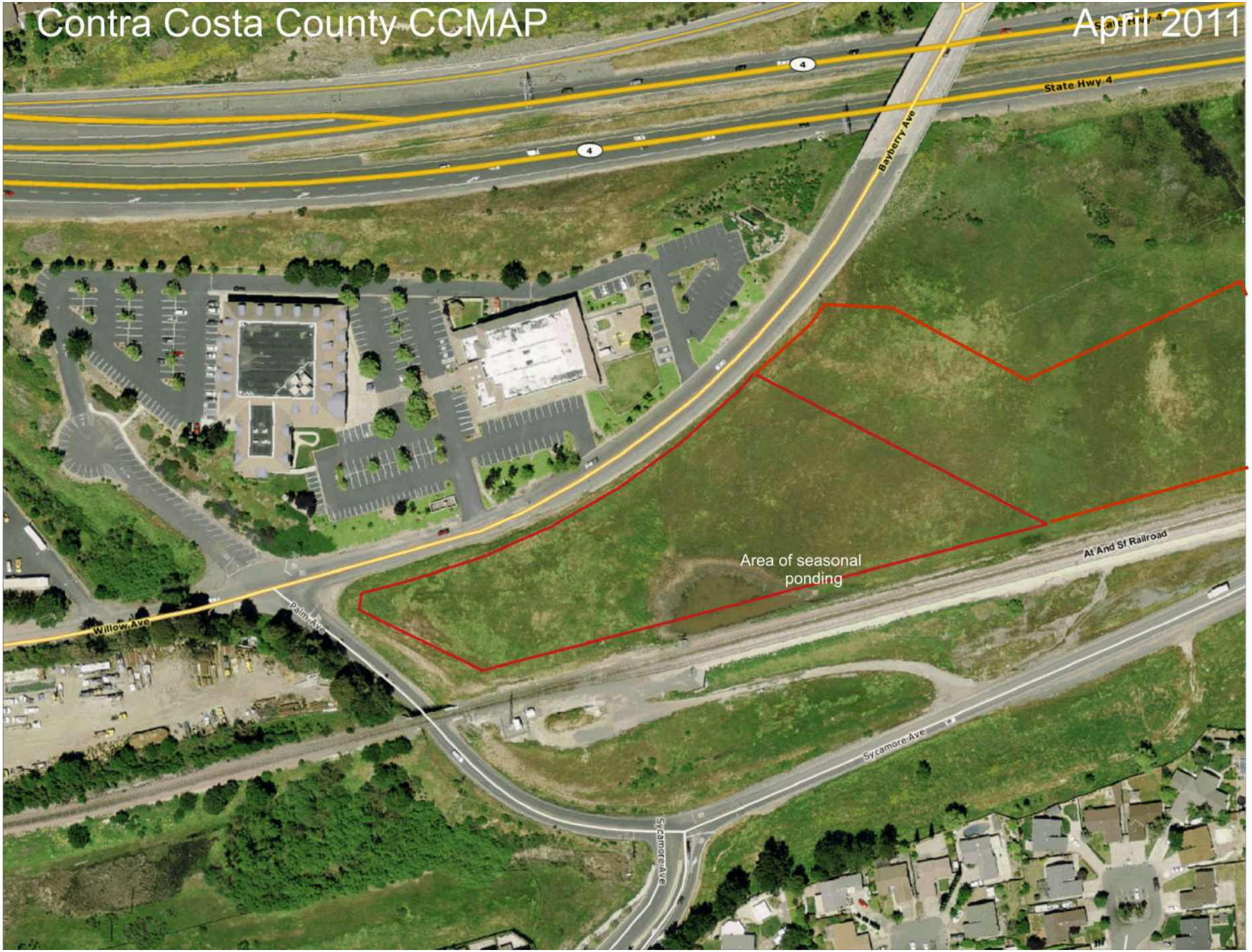
USGS in GoogleEarth
7-5-1993
Image U.S. Geological Survey


USGS AR5960050441024
2-13-1996

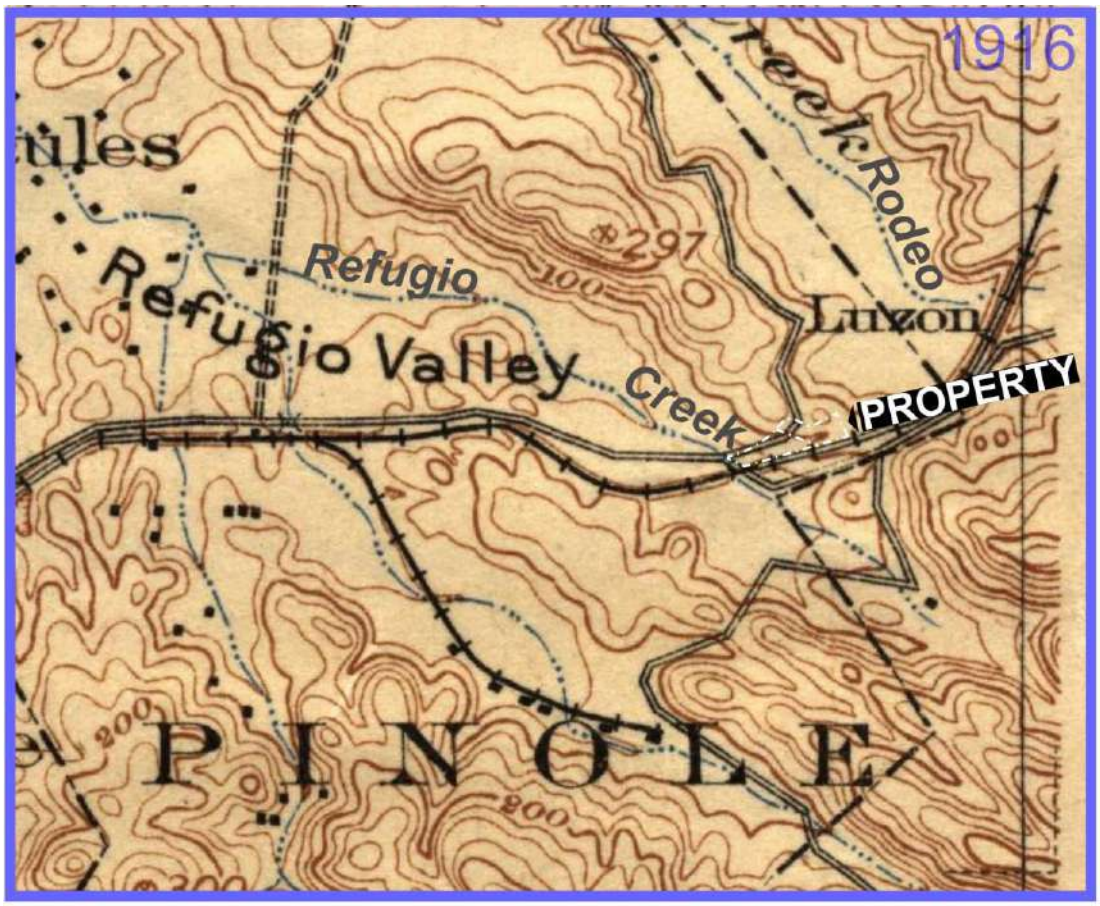

Contra Costa County CCMAP
May 2000
State Hwy 4
Bayberry Ave
At And Sf Railroad
Area of seasonal
ponding
Willow Ave
Palm Ave
Sycamore Ave
Sycamore Ave

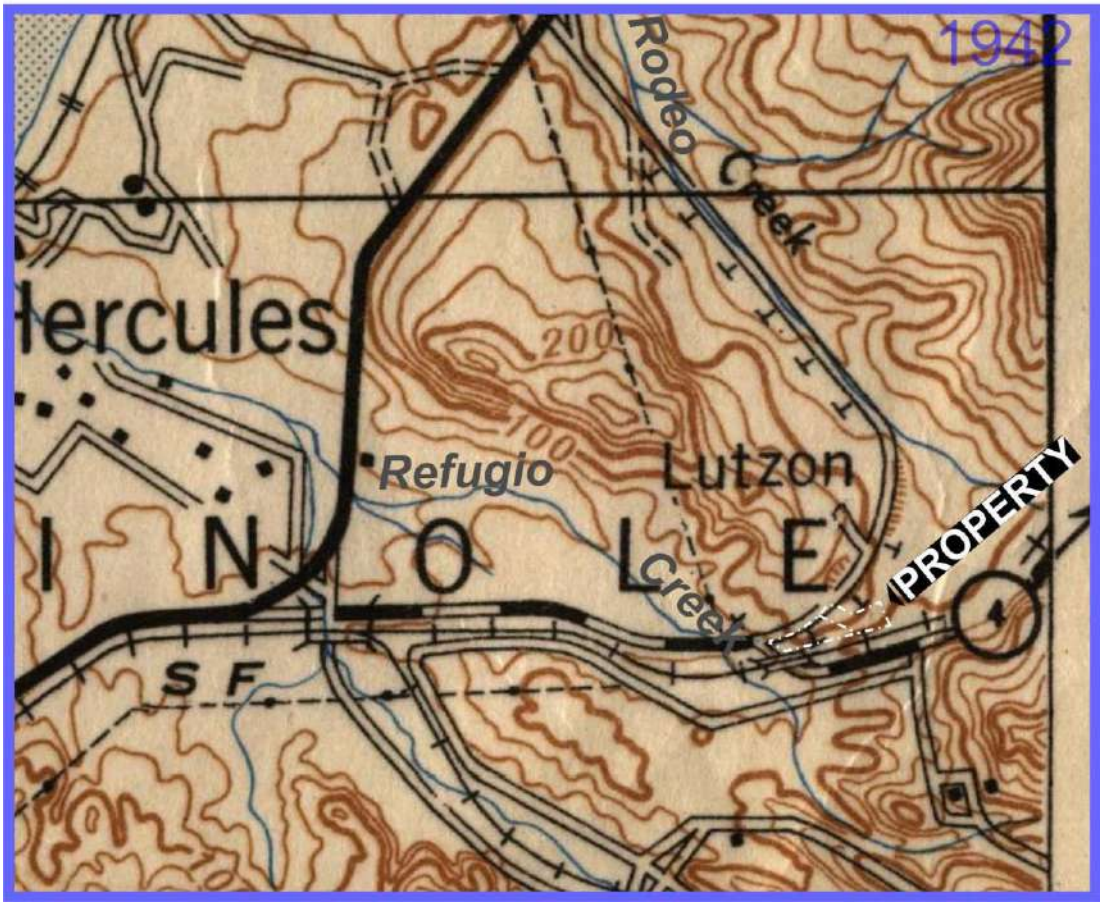

Contra Costa County CCMAP
April 2004
State Hwy 4
Bayberry Ave
Area of potential debris dumping
Area of seasonal ponding
At And Sf Railroad
Willow Ave
Palm Ave
Sycamore Ave
Sycamore Ave

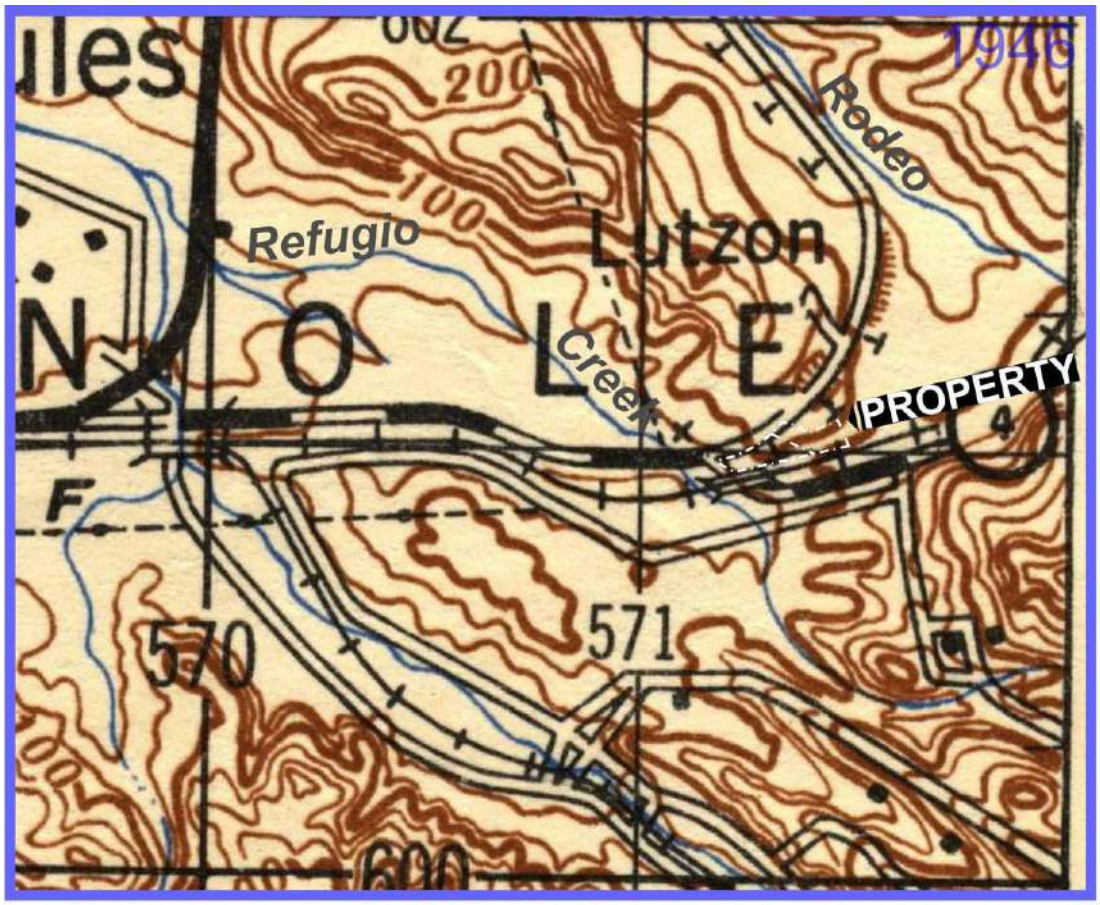
Contra Costa County CCMAP
April 2008
State Hwy 4
Bayberry Ave
Area of potential debris dumping
Area of seasonal ponding
At And Sf Railroad
Willow Ave
Palm Ave
Sycamore Ave
Sycamore Ave

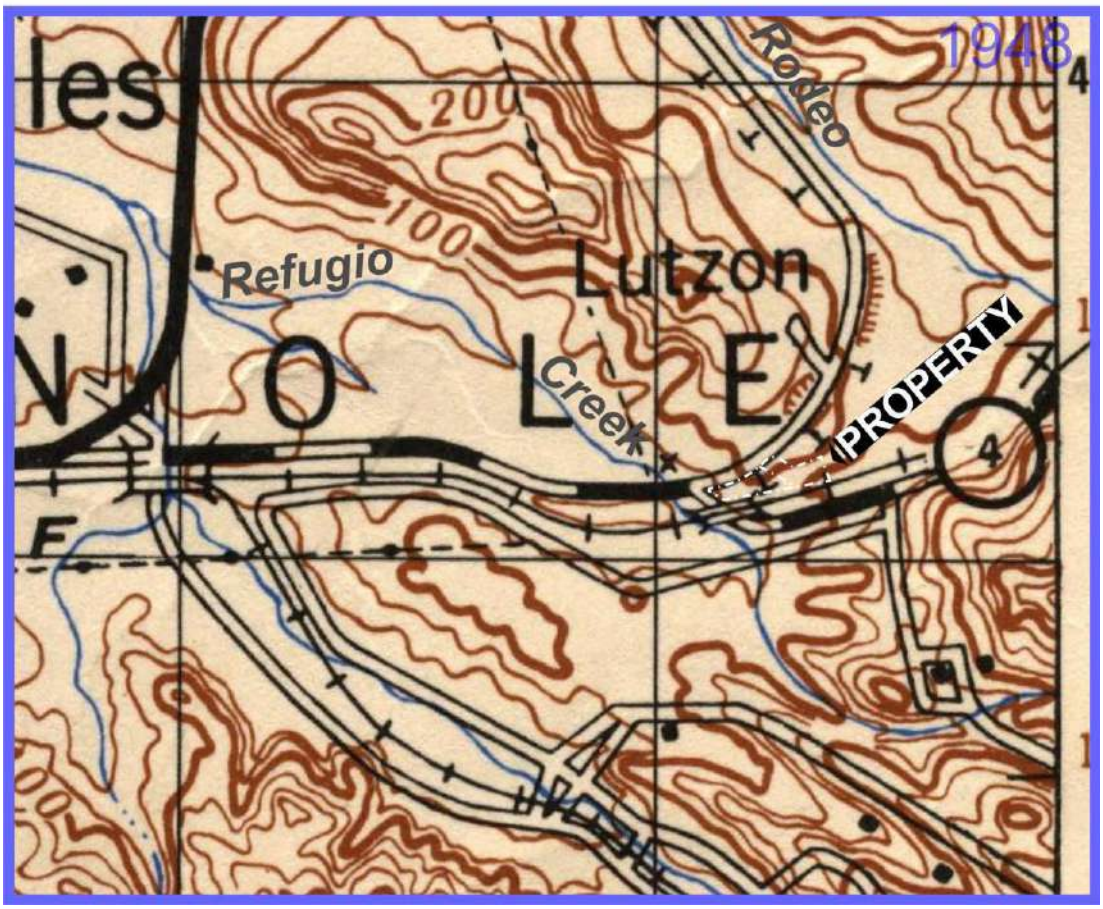

Contra Costa County CCMAP
April 2011
State Hwy 4
Bayberry Ave
Area of seasonal ponding
At And Sf Railroad
Willow Ave
Palm Ave
Sycamore Ave
Sycamore Ave

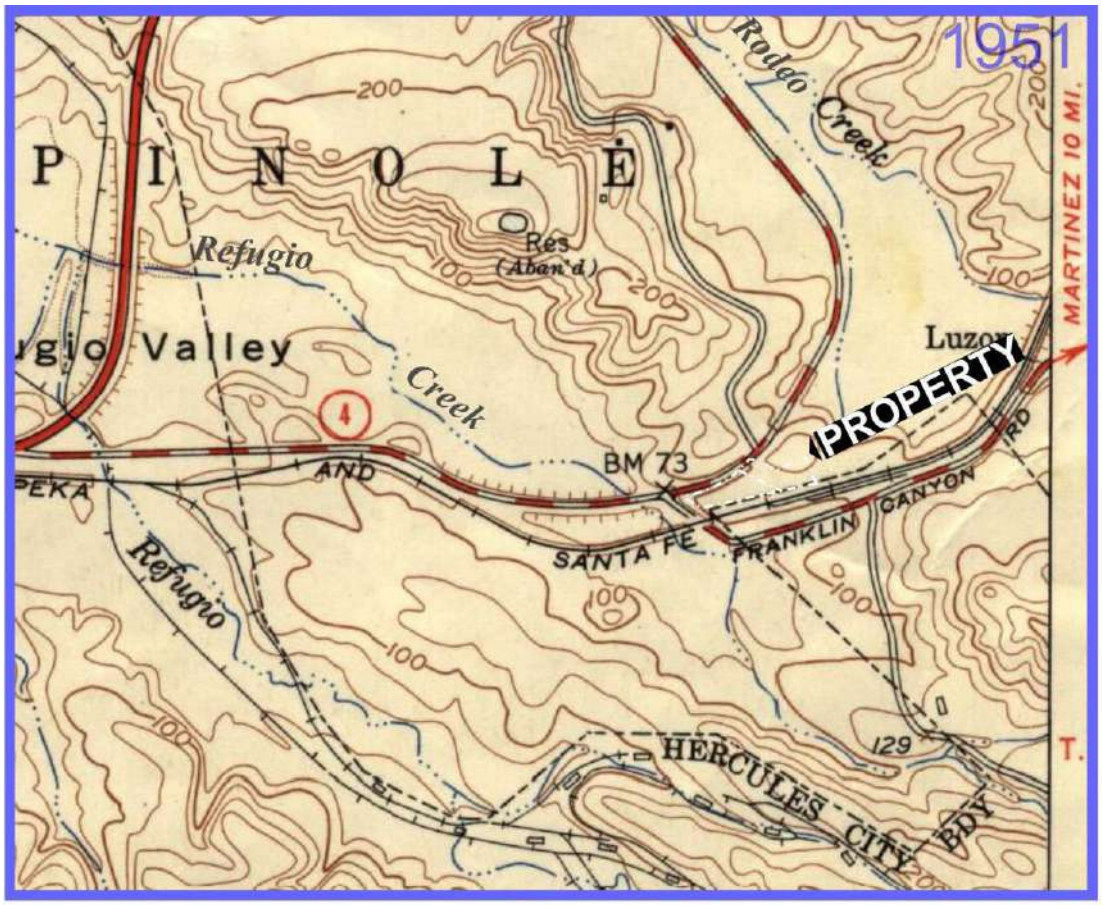
APPENDIX D
HISTORIC TOPOGRAPHIC MAPS

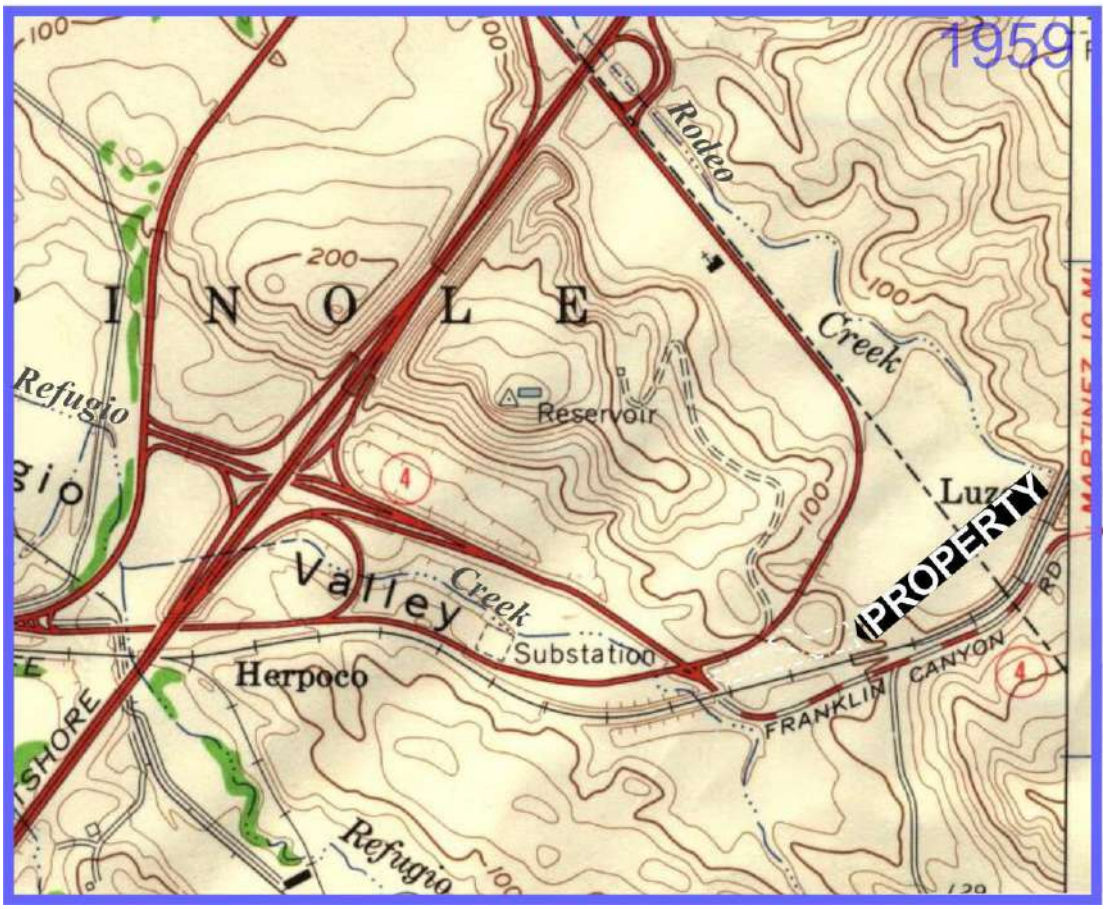

1916
Refugio
Refugio Valley
Creek
Rodeo
Lutzon
PROPERTY
297
100
200
P I N O L E

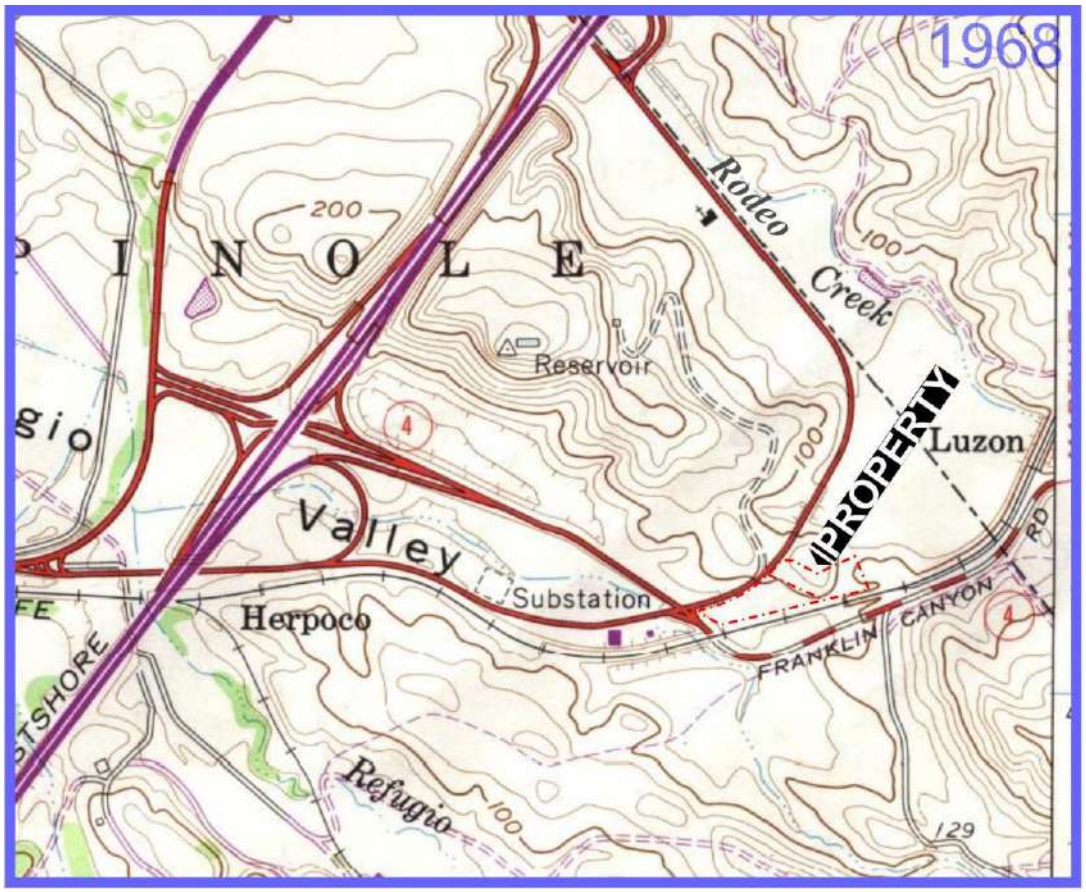

1942
Rodeo Creek
Hercules
200
100
Refugio
Lutzon
Creek
PROPERTY
I N O L E
S F

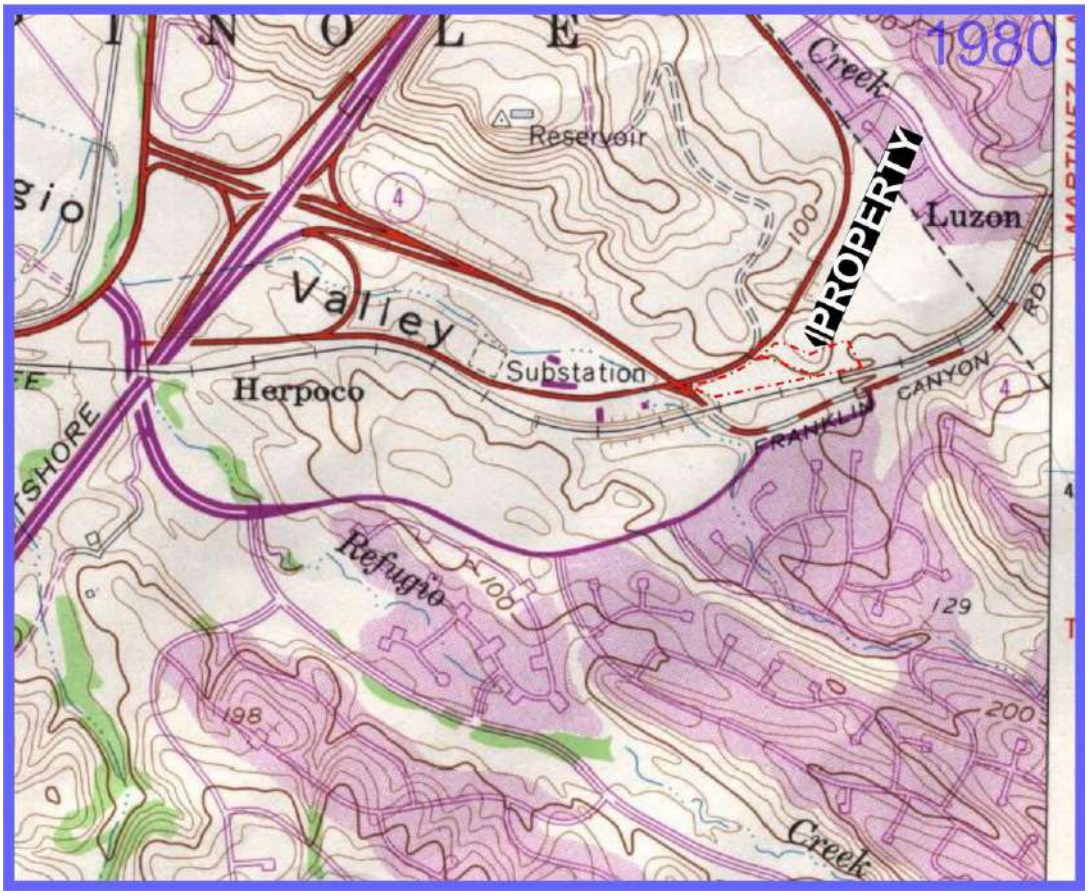

1948
200
100
Rodeo
Refugio
Lutzon
Creek
PROPERTY
570
571
600


1948
200
100
Rodeo
Refugio
Lutzon
Creek
PROPERTY


1951
PINOLE
Rodeo Creek
Refugio
Res
(Aban'd)
Valley
Creek
Luzon
PROPERTY
MARTINEZ 10 MI.
BM 73
AND
SANTA FE
FRANKLIN CANYON
RD
Refugio
HERCULES CITY BDY
129
T.


1959
Rodeo
Creek
PINOLE
Refugio
Reservoir
Luz
PROPERTY
Valley
Creek
Substation
Herpoco
FRANKLIN CANYON
RD
Refugio


1968
Rodeo
Creek
200
100
Reservoir
Luzon
PROPERTY
Valley
Substation
Herpoco
FRANKLIN
CANYON
RD
Refugio
129


1980
Creek
Reservoir
Luzon
PROPERTY
Valley
Substation
Herpoco
FRANKLIN
CANYON
RD
Refugio
100
129
198
200
Creek

APPENDIX E
QUALIFICATIONS OF ASSESSOR

MARC PAPINEAU

B.S., Mathematics and Physics, Haverford College, 1976
M.B.A., Finance, UC Berkeley, 1981

1995-2015 Environmental Service (Castro Valley, CA)
Founded Environmental Service in October 1995 and the Greenhouse Gas Information Group in October 2009. Mr. Papineau offers specialized services in Phase I environmental site assessment, community noise assessment, and air pollution and greenhouse gas impact assessment. His services have supported the land development projects of not-for-profit affordable housing developers and market-rate housing developers. Mr. Papineau has managed multidisciplinary teams preparing Environmental Impact Statements and Reports including EIS/Rs for the I-880/Dixon Landing Road Interchange Improvements, Redevelopment Plan Amendment for the Turlock Redevelopment Agency, the Arbor Avenue Hotel and Alternatives for Alameda County, and the Sky Ranch II 415-Unit Residential Subdivision and Alternatives for the City of Pittsburg.

1992-1995 Levine Fricke Recon (LFR), formerly Certified Engineering & Testing Co.
Mr. Papineau managed the Physical Sciences Department whose emphasis was Phase I and II environmental site assessments for developers and lenders.

1982-1991 Earth Metrics Incorporated (Burlingame, CA)
Managed the Physical Sciences Department that performed Phase I environmental site assessments, acoustical assessments, air pollution and odor assessments, and indoor air quality assessments, and also managed project teams preparing Impact Reports. Managed a smog trend study of the Livermore-Amador Valley and carbon monoxide monitoring, both conducted for the Hacienda Business Park, Pleasanton, CA. Services of the Physical Sciences Department supported the programs of cities, school districts and utility districts and also assisted private-sector developers.

1981-1982 Earth Metrics Incorporated (Houston, TX)
Mr. Papineau managed and implemented a community scale carbon monoxide monitoring study in Houston, TX, for a joint venture enterprise providing consulting services to the City of Houston and Urban Mass Transit Administration (UMTA) in regard to the “Spine Corridor,” a commuter rail concept. He applied results of the monitoring to validate a microscale carbon monoxide model, which then was applied to predict future CO levels in transit station locations and feeder routes thereto.

1979-1981 Graduate Studies (Berkeley, CA)
During a leave of absence for one quarter, Mr. Papineau participated in environmental assessments for the Multnomah and Sunset light rail corridor alternatives in Portland, OR, including air quality and transportation noise measurements and analysis for METRO.

1978-1979 Earth Metrics Incorporated (Palo Alto, CA)
Mr. Papineau was an environmental scientist and technical writer for environmental impact statement (EIS) and report (EIR) documentation pursuant to the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). He performed air quality and transportation noise modeling using proprietary and Federal Highway Administration (FHWA) models. Conducted a statistical analysis of ozone transport for the Butte County Air Pollution Control District. The study showed patterns consistent with ozone transport from outside Butte County.

1977-1978 Environmental Research & Technology (Westlake Village, CA)
Mr. Papineau performed statistical evaluations of basin-wide “CHAMPS” air pollution monitoring data for Dr. George Hidy, whose Los Angeles basin smog research was funded by the American Petroleum Institute.

environmental service

by P apineau

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