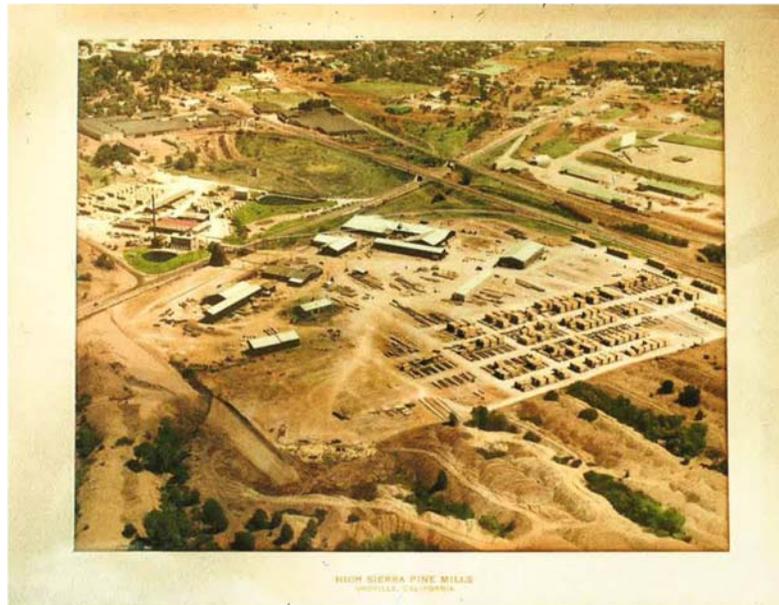




Phase I Environmental Site Assessment  
**Assessor's Parcel Number  
035-270-016  
1245 Oro Dam Boulevard  
Oroville, California**



Presented to:  
**CITY OF OROVILLE**  
1735 Montgomery Street  
Oroville, California 95965  
(530) 538-2433

Presented by:  
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September 22, 2015  
Project Number: 01215033.00

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September 22, 2015

**Project Number: 01215033.00**

Mr. Luis Topete  
Associate Planner  
City of Oroville  
1735 Montgomery Street  
Oroville, California 95965

**Subject:** Draft Phase I Environmental Site Assessment (Assessment)  
Assessor's Parcel Number (APN) 035-270-016  
1245 Oro Dam Boulevard  
Oroville, California

Dear Mr. Topete:

SCS Engineers (SCS) is pleased to present this Phase I Report (Report) of the Assessment of the above-described Site. This Report summarizes the results of the Assessment that was conducted to evaluate the Site's current environmental conditions. The work described in this Report was performed by SCS in general accordance with the Amendment to the Consulting Agreement (Contract) between SCS and City of Oroville (Agreement No. 3102-1), which was entered into on January 20, 2015. The Contract Amendment for this Assessment was fully executed on April, 2015.

Because your full understanding of the Assessment is important to us, SCS recommends that you read the Report in its entirety. However, if time does not allow you a complete reading, summaries may be found in text boxes at the end of each section (pages 18, 27, 33 and 34), and our conclusions and recommendations may be found on page 34. A glossary of terms commonly used in environmental assessments is also provided in the Appendices to this Report.

SCS enjoyed working with you on this project. Providing economical environmental solutions to meet your needs is more than our goal—it is our mission and the measure of our success. If we may assist you in any way, now or in the future, please call our office at (530) 533-5898.

Sincerely,



Paul Wisniewski, PG, QSD  
Professional Geologist  
**SCS ENGINEERS**



James G. Ritchie, PG, QSD  
Project Manager  
**SCS ENGINEERS**

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## 1 BACKGROUND

Based on conversations with the Site owner, Mr. Robert (“Steven”) Seidenglanz (Client) and a review of in-house databases, SCS Engineers (SCS) understands that 1245 Oro Dam Boulevard, Oroville, California (the Site) consists of approximately 38.75 acres of land. The Site is currently developed with commercial buildings occupied by several tenants, including retail tire and granite sales and installation companies. The Site owner is considering sale of the property once environmental work is completed. In addition, the City of Oroville (the City) and the Site owner are considering the extension of Veatch Street southward through the Site to allow better traffic flow and access to properties south of the Site, including a proposed Walmart Superstore.

A review of the in-house ParcelQuest database of information from the Butte County Assessor’s Office provided the following information in connection with the Site: the Site has an Assessor’s Parcel Number (APN) of 035-270-016 and an address of 1245 Oro Dam Boulevard, Oroville, California, and it covers 38.75 acres (1,687,950 square feet) of land. According to Butte County files and other records, the on-Site commercial buildings were constructed in the 1920s through circa 1946. The Site buildings encompass a total of approximately 103,000 square feet. The Site use is listed by Butte County Assessor’s Office records as having a commercial use and industrial (M2) zoning, which is consistent with current Site use.

APN	Address	Area	Description	Improvements Information
035-270-016	1245 Oro Dam Boulevard, Oroville, California	38.75 acres	Commercial Buildings	Approximately 103,000 square feet, constructed circa 1920s to 1946

## 2 STANDARDS BACKGROUND

This Assessment was conducted in general accordance with the following:

- U.S. Environmental Protection Agency (USEPA), 40 Code of Federal Regulations (CFR) 312, Standards and Practices for All Appropriate Inquiries; Final Rule (AAI);
- American Society for Testing and Materials (ASTM) Standard Practice for Phase I Environmental Site Assessment Process E1527-13; and,
- The scope, conditions, and limitations of the Contract and the Contract Amendment.

The Client understands that the above-referenced USEPA and ASTM standards were not developed to identify all environmental risk to property. The standards were developed to allow a user (Client) to qualify for the innocent purchaser defense, bona fide prospective purchaser defense, and contiguous property owner defense to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, a.k.a. Superfund) liability. This Assessment is intended to constitute an appropriate inquiry into the previous ownership and uses

of the property consistent with good commercial or customary practice, as part of the due diligence process required by CERCLA, the Superfund Amendments and Reauthorization Act of 1986, and the Small Business Liability Relief and Brownfields Revitalization Act of 2002 (collectively, Acts).

While this Assessment may initially qualify the Client for a CERCLA defense, after purchase, there may be continuing obligations that must be implemented in order to preserve this defense through the term of property ownership. There may be additional requirements under state law which also apply. The Client should contact qualified legal counsel regarding matters of liability, interpretation of the Acts, and potential continuing obligations. Although it is outside the scope of this Assessment, SCS would be pleased to work with the Client's legal counsel to develop and implement a strategy to preserve the Client's CERCLA liability defenses through the term of its ownership.

This Assessment focused on potential sources of hazardous substances and petroleum products that could be considered either a recognized environmental condition (REC),<sup>1</sup> controlled recognized environmental condition (CREC)<sup>2</sup>, or historical recognized environmental condition (HREC)<sup>3</sup>, and potentially a liability due to their presence in significant concentrations (e.g., above acceptable limits set by the federal, state, or local government) or due to the potential for exposure and risk due to contaminant migration and complete exposure pathways (e.g., soil vapor inhalation or groundwater ingestion). Materials that contain substances that are not currently deemed hazardous by the USEPA or the California EPA were not considered as part of this Assessment.

Unless specifically included in SCS's scope of services, building materials such as asbestos, lead-based paint, urea formaldehyde, and pressure-treated lumber, as well as lead in drinking water, are not considered in this Assessment, nor are building issues such as fire safety, indoor air quality (with the possible exception of vapor intrusion), mold, or similar matters. SCS did not

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<sup>1</sup> *Recognized environmental conditions*, as defined by ASTM, include the 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. However, the term is not intended to include *de minimis* conditions (a condition that generally does not present a threat to human health or the environment and that generally would not be subject to an enforcement action if brought to the attention of appropriate governmental agencies). A condition considered *de minimis* is not a recognized environmental condition.

<sup>2</sup> *Controlled recognized environmental condition*, as defined by ASTM, is a *recognized environmental condition* resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity use limitations, institutional controls, or engineering controls).

<sup>3</sup> *Historical recognized environmental condition*, as defined by ASTM, is a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

evaluate the Site for compliance with land use, zoning, wetlands, or similar laws. This Assessment also excludes regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, and high-voltage power lines. This Assessment is not intended to be an environmental compliance audit.

Hazardous substances occurring naturally in plants, soils, and rocks (e.g., heavy metals, naturally occurring asbestos, and radon) are not typically considered in these investigations. Similarly, construction debris (e.g., discarded concrete, asphalt) is not considered, unless obvious indications suggest that hazardous substances are likely to be present in significant concentrations or likely to migrate.

An evaluation of business environmental risk associated with a parcel of commercial real estate may necessitate investigation beyond that included herein.

### 3 OBJECTIVE

The objective of the scope of services was to assess the likelihood<sup>4</sup> that RECs are present at the Site as a result of the current or historical Site land use or from a known and reported off-Site source.

### 4 SCOPE OF SERVICES

The scope of services designed and conducted to meet the objective was as follows:

- Site Reconnaissance, Site Research, Interviews, and User Requirements;
- Topography, Geology, Hydrogeology, and Water Quality Survey;
- Site Vicinity Reconnaissance and Off-Site Source Survey;
- Historical Site and Site Vicinity Land Use Review;
- Identification of Data Gaps; and,
- Data Evaluation, Figure Preparation, and Assessment Report Preparation.

### SITE RECONNAISSANCE

On May 15, 2015, SCS personnel conducted a Site reconnaissance to observe and document existing Site conditions<sup>1</sup>. The general Site location is shown in Figure 1, and a Site and Site Vicinity Plan is shown on Figure 2. Selected color photographs of the Site and Site vicinity are presented in Appendix B.

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4. Statements of “likelihood” are made in this Assessment, based on the professional judgment of SCS. A description of likelihood statements, as made in this Assessment, is included in the “Likelihood Statements” section.

The interiors of the on-Site buildings were observed, and the Site grounds and Site perimeter were systematically traversed on foot during the Site reconnaissance. The Site owner accompanied SCS personnel, provided access to the observed features, and answered questions posed by SCS personnel. Site buildings were accessible, with the exception of two small sheds and former administrative office buildings (see Figures 2a and 2b).

### General Information

The following table summarizes general information in connection with the Site.

<b>APN</b>	035-270-016
<b>Address</b>	1245 Oro Dam Boulevard, Oroville, California
<b>Area</b>	38.75 acres
<b>Site Land Use</b>	Commercial
<b>Occupant</b>	Metal roll-up door company, tire sales and service, granite sales and installation company, CRV recycler (planned)
<b>Figure Reference</b>	Figure 1, 2a and 2b

### Site Buildings

The following table summarizes information in connection with the current Site buildings.

<b>Number of Buildings</b>	5 commercial buildings including warehouses; numerous sheds and outbuildings in various states of disrepair, numerous foundations associated with former buildings
<b>Interpreted Construction Date</b>	Circa 1920s through 1946, with subsequent additions/renovations through the mid-2000's
<b>Number of Stories</b>	1
<b>Construction Type</b>	Wood and steel frame, metal and wood-covered exterior walls, concrete slab-on-grade foundations
<b>Figure Reference</b>	Figure 2a and 2b, Appendix B: Site Photographs

The Site is developed with five wood- and steel-framed buildings with metal and wood siding and numerous sheds or outbuildings that were originally constructed circa 1920s through approximately 1946. Numerous concrete building foundations were also present from former buildings that were demolished by the Site owner due to their poor condition. Site buildings include: one approximately 74,000 square foot warehouse (tenant occupied; partially vacant [former Box Facility/Wood Truss Plant]) with an attached office building (vacant), one administrative office building (vacant), two smaller warehouses used for storage (approximately 10,000 square feet [former name illegible on available maps] and 7,500 square feet [former

Truck Repair/Machine Shop], respectively), an approximately 5,000 square foot building (former name not available), and numerous enclosed and open sheds of varying sizes.

The Site is largely paved with asphalt and the storm water conveyance system is connected to the City of Oroville storm drain system. There were four (4) above ground storage tanks (ASTs) located on the Site, located within secondary concrete block wall containment. The ASTs include one approximately 15,000 gallon diesel tank, one approximately 10,000 gallon diesel tank, one approximately 1,000 gallon gasoline tank, and one approximately 250 gallon waste oil tank. According to Mr. Seidenglanz, the Site owner, the ASTs were empty. No drums were identified on-Site, other than two empty drums located inside the 74,000 square foot warehouse. No wells were identified on the Site, which is reportedly supplied with potable water by California Water Service Company, a local water district. Sewer services are reportedly provided by two private on-Site septic systems.

The approximately 74,000 square foot warehouse was partially occupied by tenants, including a tire sales and service company, a granite sales and installation company, and a metal roll-up door company. This building, which is built on a concrete slab on grade, appears to have been constructed in multiple phases with older portions of the building on the south and east sides. Older portions of the warehouse included former lumber milling operations, specifically used for wood truss construction according to the 1949 and 1962 Sanborn maps and a planing box mill facility according to the 1926 Sanborn maps. There were several pits located in the southwest portion of the building, which are described in detail in sections below. Portions of the warehouse are being used by the roll-up door company to store door parts.

The approximately 10,000 square foot building, which is located in the southeast portion of the Site, is being used for materials and equipment storage. A small oil stain was noted on the concrete foundation at the time of our reconnaissance.

The approximately 7,500 square foot building, which is located in the southwest portion of the Site, was vacant and equipped with a linear equipment and vehicle service pit and empty 200-gallon AST. No staining was observed on the concrete foundation of the building beneath the AST or inside the service pit.

A former planing mill building, which is located in the northwest portion of the Site, had a linear pit, possibly for lumber machinery or a dip tank. Similarly, the foundation of another demolished building was observed to have a partially filled pit that was overgrown with vegetation. These and other pits are described in greater detail in the sections below.

A number of small sheds are located throughout the Site along with a truck scale, old lumber machinery, and concrete foundations associated with demolished buildings.

### **Site Grounds**

The Site grounds were observed to include asphalt-paved areas that almost entirely cover the ground surface between Site buildings. The Site is unpaved in the northeast corner and along the southern and northern Site boundaries. A rail spur is located along the northern Site boundary. Chain-link fencing was observed on the Site perimeter. Access to the Site from Oro Dam

Boulevard is provided by two paved entrances at the northwest corner and north-central portions of the Site.

Miscellaneous materials are stored on asphalt paved surfaces outside of the Site buildings at various locations throughout the Site including a creosote soaked power pole, a galvanized metal power pole, and several wooden boxes. Power poles and overhead power lines are located on-Site. No hazardous storage areas were observed.

### **Hazardous Materials / Petroleum Products**

With the exception of the four ASTs within the concrete fueling containment (reportedly empty) and one AST within the approximately 7,500 square foot warehouse, there were no obvious indications of the storage or use of hazardous materials and/or petroleum products were observed at the Site during the Site reconnaissance.

### **Hazardous Wastes**

No obvious indications of the generation of hazardous wastes were observed at the Site during the Site reconnaissance. One creosote soaked power pole was identified on the Site, but its presence is considered likely to be *de minimis* as defined by ASTM.

### **Indications of Releases of Hazardous Materials/Wastes or Petroleum Products**

With the exception of minor surficial staining (interpreted to be from automotive lubricants) observed at one location on the concrete foundation of the approximately 10,000 square foot warehouse, no obvious indications were observed that a release of hazardous materials/wastes or petroleum products had occurred at the Site. The minor surficial releases identified above on concrete or other impervious surfaces are considered likely to be *de minimis* as defined by ASTM.

### **On-Site Utilities**

<b>Gas and Electricity</b>	Reported to be Pacific Gas and Electric Company (PG&E)
<b>High-power Transmission Lines</b>	None observed at or adjacent to the Site. Individual power poles were observed on the Site but none with mounted transformers
<b>Storm Drains</b>	None observed to be located at the Site; storm water run-off appears to flow over asphalt paved surfaces where it discharges at the northwest corner of the Site
<b>Source of Heating and Cooling</b>	Reported to be PG&E
<b>Potable Water Source</b>	Reported to be supplied by the California Water Service district
<b>Wastewater Conveyance</b>	Reported to be provided by two on-Site septic systems

Two PG&E transformers were observed to be located along the north boundary near the east entrance to the Site. The transformers appear to be of modern construction and therefore have low likelihood to contain PCBs. No obvious indications of leaks, such as stained asphalt, were noted near the transformers.

No obvious indications of wells, cisterns, sumps, or dry wells, or bulk storage tanks were observed at the Site. The report titled *Environmental Assessment for Real Estate Transaction*, prepared by A/C Industrial Services Corporation (A/C, December 14, 1999) noted an “industrial water well” on the Site; however, no well was identified during SCS’s Site reconnaissance. A well is known to exist to the south of the Site (off-Site) on a former lumber deck as indicated by the Site owner and available Sanborn Fire Insurance maps.

Several pits were observed on Site, some of which were related to the fire suppression system and others are of unknown origin. Unidentified pits include an approximately 4 foot by 4 foot pit in the approximately 74,000 square foot warehouse (possibly machine pits), an approximately 2 foot by 20 foot pit located in the former planing mill building (possibly machine pit or dip tank), and a vehicle and equipment service pit located inside the approximately 7,500 square foot warehouse. Records available from the City of Oroville indicate this may have been a “grease pit” used for vehicle maintenance. There were no obvious indications of stained concrete or soil associated with the pits. The service pit located in the 7,500 square foot warehouse was concrete lined and there were no indications that a release had occurred. Due to the unknown nature of the pits located inside the 74,000 square foot warehouse and former planing mill building, their possible association with machinery, and unlined condition, there is a moderate likelihood that these pits represent a REC.

Two suspected former pits were located adjacent to one another at the southwest side of the approximately 74,000 square foot warehouse. Pits were suspected because there was a more recent generation of concrete in this area and, due to the former reported use of pentachlorophenol (PCP) at the Site, this area is suspected of being a green chain and the former suspected pits may have been dip tanks. Sanborn maps indicate that this area was used for lumber storage. These two former suspected pits are likely to be RECs.

Four bulk storage tanks were identified in the fueling area located north of the approximately 7,500 square foot warehouse. The bulk storage ASTs were reportedly empty, previously contained waste oil, diesel fuel, and gasoline, and were located inside a concrete block secondary containment structure. No indications of leaks or staining were observed inside the secondary containment structure or within the concrete fueling berm. Based on the lack of indications of a release, there is a low likelihood that the ASTs represent a REC. One approximately 200 gallon AST was also located inside the approximately 7,500 square foot warehouse. The AST was marked with a placard indicating that it had been permanently closed. There were no indications of leaks or staining on the concrete foundation of the warehouse. As such, there is a low likelihood that this AST represents a REC.

## SITE RESEARCH

### **Butte County Department of Environmental Health (DEH) File Review**

The Butte County DEH was contacted<sup>ii</sup> and indicated that there are no files associated with the Site that are pertinent to this Report.

### **Review of Client-Provided Documents**

The Client provided SCS with a copy of the A/C Report (A/C, 1999) which contained the following conclusions and recommendations regarding the Site:

- “There is an area of the property which has been used in the past for wood treatment activities (i.e., a dip tank). It is unknown which type of preservative(s) were used in the dipping operations. It may be possible that contamination of subsurface soils has occurred from these historical operations which could present an environmental problem to current or future owners of the Property. In order to meet full disclosure requirements, limited soil sampling via extraction of a core sample(s) from this area may wish to be considered. Dip tank operations<sup>ii</sup> ceased on this site in the late 1950s.
- It is unknown as to possible contamination of the soil in the area where the former [underground storage tanks] USTs were located. In order to confirm or deny the presence of possible contamination, limited soil sampling via extraction of a core sample(s) from this area may wish to be considered. The tanks were legally removed to the then current standards in 1985.
- In the building identified as “Planing Mill No. 1” there is an area underneath the old machinery where the soil is exposed. Obvious staining of the soil by presumed lubricating oils evident. This soil should be removed and the location remediated to acceptable clearance levels between buyer and seller.
- There are four locations where air compressors have been located in sheds. In these four areas, the ground has been contaminated by residues of oil. This should be cleaned of gross accumulations by scraping and subsequent pressure washing. Accumulated material should be properly disposed of.
- There are approximately (2) 55 gallon drums scattered around the property which are believed to contain hazardous wastes. These drums should be properly disposed of. There are also approximately (22) 5 gallon pails scattered around the property which are believed to contain hazardous wastes. These drums should be properly disposed of.”

The A/C Report indicated that the Site had been used as a lumber mill prior to the 1920s, including: wood treatment, log storage, saw cutting, truck maintenance and fueling activities, and offices. Waste oil, diesel, gasoline, grease, and pentachlorophenol (PCP) and/or creosote for wood treatment were noted as being historically used at the Site. The Report notes that the Site was occupied not only by Las Plumas Lumber Mill Co. from 1959, but also by Swayne Lumber

Company and High Sierra Pine Mills for an unknown time period. Mr. Tim Miller was reportedly the former owner of the Site.

Historical interviews conducted by A/C with Mr. Dell Fleener of Endeavor Homes, former Site operator, revealed that a dip tank was located in the vicinity of the existing office building. The dip tank was reportedly an exterior tank located on a concrete pad that was used to treat wood with preservatives. The office building was reportedly constructed on the dip tank location.

Prior to 1985, three USTs, including two (2) 5,000 gallon diesel tanks and one (1) gasoline tank, were located near the location of three ASTs. The USTs were reportedly removed under oversight of the City of Oroville Fire Chief. No soil samples were collected from the excavation, but no evidence of impacts to soil were noted during tank removal work. The Site was paved with asphalt in 1972 or 1973. No rail accidents or spills were noted since 1965 related to the rail spur on the Site. An on-Site transformer was replaced by PG&E in the mid-1980s. The wood incinerator, formerly located near the electrical main drop, was removed in the early 1970s and no subsequent burning of wood waste has occurred since that time.

The interview with Mr. Fleener provided the following history of the Site operations:

“The original operator of the site was Swayne Lumber Company, from approximately 1920’s to 1940. The next owner was High Sierra Pine, who took over the existing operations of the mill. Both mills were “box plants” which took raw lumber and remanufactured it into finished products such as window casements and finished pine products. These were then “boxed” for shipment.

In 1958 High Sierra Pine closed, and the site was bought by Las Plumas Lumber (Mr. Bud Miller) in 1958 or 1959. Las Plumas Lumber continued similar remanufacturing operations until it closed in 1995. In 1968 Las Plumas Lumber was purchased by D’Georgio Corporation, but continued to operate as Las Plumas Lumber until its closure in 1995. In 1996 or 1997 the site was purchased by North Valley Lumber and Truss, which manufactured pre-made trusses on the site. In 1997, N. Valley Lumber and Truss vacated the site, and since that time the site has been occupied by Endeavor Homes.

No other businesses have occupied the site since 1997, except Hampton Lumber occupied the site for one year in 1997. Hampton lumber was a wholesale lumber “reload” business which stored and shipped packaged lumber units to retail outlets.”

A copy of the A/C Report is included in Appendix C.

The Client also provided a Report titled *Phase I Environmental Site Assessment Veatch Street Extension Easement, 1245 Oro Dam Boulevard*, which was prepared by Brown and Caldwell and dated October 10, 2012 (Brown and Caldwell, 2012). This document contained the following conclusions and recommendations regarding the Site:

“Brown and Caldwell has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Standard E 1527-05, of the site located at 1245 Oroville Dam Boulevard, Oroville, California. Any exceptions to, or deletions from, this practice are described in Section 1.2 of this report. For the purpose of the ESA, Brown and

Caldwell evaluated a portion of the property currently being considered by the City of Oroville for a roadway expansion. The subject easement is located on the western portion of the property and transects the site in a north to south orientation, extending south from the intersection of Veatch Street and Oroville Dam Boulevard. Various businesses lease space at the 1245 Oroville Dam Boulevard property. Three of the leasee businesses were identified in the databases searched by EDR®. No sites with open regulatory cases were identified in the databases searched by EDR®. Historical operations outside of the site footprint, but within the 1245 Oroville Dam Boulevard parcel boundary, involved two different wood treatment tanks.

A review of available Sanborn® maps revealed other historical operations outside of the site footprint included a former teepee burner (wood waste incinerator) and former oil house in the former box factory (main building). During the May 30, 2012 site reconnaissance, Brown and Caldwell observed significant quantities of solvent, other unknown chemicals, and an empty drum storage area in various leased spaces. A former sump was also observed in the green chain/planing mill. The former reported wood treatment tank, teepee burner, and oil house were not found during the site reconnaissance.

Due to a lack of regulatory handling and/or closure documentation for the former reported wood treatment tank, former teepee burner, former oil house, chemical cache, and former sump, these five findings are considered off-site recognized environmental conditions outside of the site, within the parcel. Additional off-site recognized environmental conditions and historical recognized environmental conditions are listed in the table provided in Section 5.2.

During the May 30, 2012 site reconnaissance, Brown and Caldwell observed a compound of ASTs for various fuels and mechanic's shop currently being leased by a trucking company, within the Site footprint. The ASTs are maintained by the leasee. The mechanic's shop contained various quantities of petroleum products used for semi-truck maintenance. According to background documentation and an interview with City staff, USTs were once located at the same location as the existing AST fueling compound. The USTs were reportedly removed under the oversight of City of Oroville Fire Department staff.

There is direct evidence that the AST compound, mechanic's shop, area of former USTs, former electrical shop, former oil house, and former machine shop are associated with the use of regulated or unregulated hazardous substances and considered recognized environmental conditions. There are no closure reports found that indicate that these recognized environmental conditions were properly investigated for the presence or absence of soil or groundwater impacts. Brown and Caldwell advises that an additional environmental assessment is warranted for these areas."

A copy of the Brown and Caldwell Phase I Report is included in Appendix C.

### **Fire Department Records Review**

SCS contacted the City of Oroville Fire Department (OFD) regarding hazardous materials/waste or UST records for Site<sup>iii</sup>. On June 4, 2015, SCS reviewed available files from the OFD, and copies of the records are included in Appendix D to this Report. The majority of information available in the OFD files consisted of Permit Applications and Inspection Reports.

The following table summarizes the OFD and Building Permit records provided for the Site. Copies of the records are included in the Appendices.

Year	Description	Address	Reported Owner/Tenant
1969 to 2000	Permits for Truss Shop, building additions, electrical, mechanical, plumbing, wiring and metal siding repair, truck scale foundation	Oro Dam Blvd, 1245 Oro Dam Blvd and 1945 Oro Dam Blvd	Las Plumas Lumber Co
1975 to 1978	Permits for HVAC, for resaw building, and for annexation pre-zoning for M2 use	1245 Oro Dam Blvd	D&G Shelter Products
2001	Fire safety inspection and Certificate of occupancy	1245 Oro Dam Blvd, #3, #51-4	North Valley Restaurant Equipment
2001 to 2003	Correspondence from City	1245 Oro Dam Blvd, #51	North Valley Holdings
1995 to 1996	Truss plate storage building proposal	1245 Oro Dam Blvd	North Valley Lumber and Truss
1987 to 2001	Fuel island piping permit, correspondence from City regarding use of 1245 and 1255 Oro Dam Blvd address at Site	1245 Oro Dam Blvd	Endeavor Homes
1997	Correspondence from City	1255 Oro Dam Blvd	Hampton Lumber
2003 to 2008	Permit for Barbeque Sauce bottling, and Certificate of occupancy	1245 Oro Dam Blvd, #4	J. Lee Roys
2011	Permits to operate	1245 Oro Dam Blvd, #2	All Phase Auto and Prime Time Interactive
2004	Fire safety inspection and Certificate of occupancy	1245 Oro Dam Blvd, #1	Aerial Vision Worldwide
2004	Certificate of occupancy	1245 Oro Dam Blvd, #2	Brown Affordable Services (Cremation)
2003	Certificate of occupancy for real estate services	1245 Oro Dam Blvd, #51-7	Butte County Investment Real Estate
2002	Fire safety inspection	1245 Oro Dam Blvd, #51-5	Cabs 4 Kids
2002	Certificate of occupancy, sheet metal fabrication and auto parts manufacturing	1245 Oro Dam Blvd, #33	No Limit Kustomz
2001	Certificate of occupancy	1245 Oro Dam Blvd, #4	U.S. Blast
2001	Fire safety inspection and Certificate of occupancy	1245 Oro Dam Blvd, #2	Table Mountain Fixtures

Year	Description	Address	Reported Owner/Tenant
2001	Fire safety inspection and Certificate of occupancy	1245 Oro Dam Blvd, #51-3 and 51-4	North Valley Restaurant Equipment
2001	Fire safety inspection and Certificate of occupancy	1245 Oro Dam Blvd, #24 and 32 (?)	Robertson Welding
2006 to 2007		1245 Oro Dam Blvd, #2	R S Productions
2006 to 2011	Certificate of occupancy	1245 Oro Dam Blvd, #1	Fair Street Recycling
2000 to 2003	Permits for building/electrical/occupancy	1245 Oro Dam Blvd, #4 and 51-1	Steven Seidenglanz
2002 to 2011	Permits for carnival/travelling show/Christmas tree lot	1245 Oro Dam Blvd	American Travelling Show, World Amusements and Midway of Fun

The OFD reported that they have no records available for the Site. According to the A/C Phase I report, Mr. Dean Hill, former City of Oroville Fire Chief (retired) was interviewed and disclosed the following:

Mr. Hill inspected the USTs and excavation upon removal and determined based on visual inspection and odor that no contamination was present and that the USTs did not have holes (A/C, 1999).

The OFD records did not include information referencing the handling, storage or disposal of hazardous materials, although one building department permit referenced construction of fuel island piping. In addition to records for Las Plumas Lumber and Hampton Lumber, other businesses which may currently or previously have used, stored or disposed hazardous materials included Roberston Welding, No Limit Kustomz, All Phase Auto, and possibly U.S. Blast. For further discussion of historic hazardous materials use at the Site, please refer to page 49 of the A/C Phase I ESA.

### **Oroville Building and Planning Department Records Review**

SCS contacted the Oroville Building and Planning Department (OB&PD) for access to files and records for the Site, and on June 4, SCS reviewed the files. The results of the file review are summarized in the table above, and copies are included in Appendix D to this Report.

## Central Valley Regional Water Quality Control Board (CVRWQCB) Records Review

SCS contacted the CVRWQCB<sup>iv</sup> regarding records for the Site. The CVRWQCB provided one historical report that was generated for the adjacent property, which includes information pertinent to the Site. The CVRWQCB-supplied Report, titled *Potentially Responsible Party Report*, was prepared by Partner Engineering and Science, Inc. (Partner) and dated March 3, 2014 (Partner, 2014). The objective of the Partner Report was to identify potentially responsible parties (PRPs) for the chlorinated solvent impacts documented to the California Water Service Company (CWS) well, CWS Well #05-01. The Partner Report provided the following conclusions and recommendations in connection with the Site:

“Tim Miller (APN: 035-270-016-000) – 1245 Oro Dam Boulevard, Oroville, California 95965

This site is situated approximately 0.5 miles northwest of the CWS Well #05-01 and is located hydrogeologically cross- and up-gradient to CWS Well #05-01. The site is partially located within the estimated zone of influence of CWS Well #05-01; approximately 1/3 of the western portion of the site is outside of the zone. The site is not within the LOAPUD sanitary sewer service area (please refer to Figure 2, PRP Location Map, PRP Site 4).

There is limited historical and regulatory information regarding this site; however, it is possible that the site is a PRP due to the presence of halogenated solvents which may be associated with this site.

The current site owner is listed as “Robert E Seidenglanz et al, 4801 Feather River Blvd #3 Oroville California 95965.” Please refer to the Chain-of-Title Records in Appendix F for additional ownership information.

According to internet research, “High Sierra Pine Mills, Inc.” was incorporated in Nevada on October 1, 1946 and operated a lumber mill and box factory at the site. From the 1940’s to the 1960’s, the site was occupied by the High Sierra Pine Mills Lumber Re-manufacturing and Box Facility.

According to the Butte County Assessor, the building was constructed in 1946. According to internet research, the High Sierra Pine Mills was purchased by the Las Plumas Lumber Company in 1961.

The site is currently listed for sale on commercial real estate websites and has a for sale sign in front of the property. The site is currently occupied by various industrial operations, including “Fair Street Recycling” which is described as a non-profit recycling center for aluminum cans, glass, plastic bottles, newspapers, cardboard, office paper, and magazines.

There is no active regulatory information for this site and there are no reports of hazardous releases having occurred at the property. Several other business names were found on internet directory listings that were associated with the site, including:

- Bettendorf Enterprises, Inc. (also known as Bettendorf Trucking) was a branch office of a trucking company. The phone number for this Oroville branch location was disconnected. It is not known if this company is an active business at the site. A July 30, 2013 active EPA ID Profile (from the DTSC HWTS database) listing shows the facility location name as “Bettendorf Enterprises” and the Owner of the business as “Bettendorf Enterprises, Inc., PO Box 4689, Arcata, California 95518.” According to the listing, the facility did not generate any PCE [tetrachloroethylene] or solvents.
- Broadband Consultants, Inc. (owner listed as Gilbert Jones), which the California Secretary of State shows as being a “suspended” corporation. This company is not believed to be an active business at the site.
- Butte County Investment Real Estate (owner listed as Shelly Seidenglanz). This company is not believed to be an active business at the site.
- Mac's Quality Used Tires, Inc. According to various City of Oroville permits from April to June of 2013 (occupancy, tenant improvement, and signage permits), the owner of this business is Robert E Seidenglanz et al (also the listed owner of Fair Street Recycling). This company is believed to be an active business at the site.

Based on available records, none of the businesses above are believed to have stored or used PCE at the site. However, according to an October 25, 2000 inactive EPA ID Profile (from the DTSC HWTS database) listing, a facility location named “Tim Miller” is shown to be associated with the site address 1245 Oro [sic] Dam Boulevard, Oroville, California 95965. The Owner/Operator of the business is listed as “Tim Miller, 1111 Marauder Street, Chico, California 95973.” Therefore, it is believed that the “Tim Miller” business listing is located at the site at 1245 Oro Dam Boulevard, Oroville, California 95965.

According to the October 25, 2000 listing, the facility generated several different types of California State and Federal RCRA wastes in 1999; of particular interest to this PRP Report, the site is listed as a generator of wastes described as: “Contaminated Soils from Site Clean-Up,” “Blank/Unknown,” and “Halogenated Solvents.”

No records or reports were found showing that environmental site investigations were performed at the site and no history of releases were found.

Given the potential for the storage and use of halogenated solvents at the site, which may include PCE, as well as the unknown nature of the contaminated soils and other unidentified substances, Tim Miller is a PRP for the PCE contamination in CWS Well #05-01.”

Mr. Tim Miller was ranked by Partner as 6 out of 7 PRPs for the chlorinated solvent impacts to CWS Well #05-01.

Partner recommended additional research to mitigate data gaps, to conduct site visits to look for evidence of solvent storage or usage, perform interagency communications, obtain access to sites for subsurface (including soil, soil vapor, and groundwater) investigations, conduct groundwater modeling, perform industrial groundwater production well sampling, and develop a responsible party questionnaire designed to identify past use of solvents, including PCE.

In addition, the State Water Resources Control Board's (SWRCB) GeoTracker website was reviewed regarding records for the Site. According to GeoTracker, no records are maintained for the Site.

In SCS's opinion that potential release(s) of halogenated solvents from the Site and lack of documentation regarding assessment or cleanup activities related to the release(s) constitutes a HREC that should be further assessed.

#### **Department of Toxic Substances Control (DTSC) Records Review**

The DTSC's website, EnviroStor, was reviewed regarding records for the Site. According to EnviroStor, no records are maintained for the Site.

#### **EDR Environmental Lien and Activity Use Limitations (AUL) Search Report Review**

The EDR Environmental Lien and AUL Search Report revealed no environmental liens or AULs were found regarding the Site.

### **INTERVIEWS**

The previously referenced EPA and ASTM standards require that attempts be made to conduct interviews with past and present owners and occupants of the Site to obtain information indicating recognized environmental conditions in connection with the Site. As part of this Assessment, the following contacts were either interviewed or attempts were made to conduct interviews.

<b>Contact</b>	<b>Affiliation to Site</b>	<b>Description</b>	<b>Interview Date</b>
Mr. Steven Seidenglanz	Current Site owner	Discussed below	May 15, 2015
Mr. Tim Miller	Former Site owner	Discussed below	May 20, 2015
Mrs. Anna Sykes	Former Site owner	Discussed below	May 20, 2015

Contact	Affiliation to Site	Description	Interview Date
	Former Site tenant	Current and former Site owners did not have contact information for former Site occupants. Therefore, former occupants were not interviewed for this Assessment.	

Mr. Seidenglanz is the current Site owner since 1999 and purchased the Site from Mr. Miller and Joe and Anna Sykes. Mr. Seidenglanz indicated that current occupants or tenants of the Site include a tire retailer, a stone and marble contractor, an industrial metal roll-up door company, and plans for a CRV recycler (cans/bottles). Mr. Seidenglanz indicated that there were no hazardous materials and petroleum products used, stored, generated, or released from the Site. Mr. Seidenglanz was unaware of historical Site land uses, with the exception of a former wood mill and truss plant. He also indicated that he was unaware of hazardous materials and petroleum products historically used, stored, released or waste generated at the Site. He indicated, however, that one former UST was removed from the Site, the location of which is presented on Figure 2b. Mr. Seidenglanz indicated that four ASTs are located on the Site but are empty, no longer in use, and plumbed with above ground piping. Mr. Seidenglanz indicated that two private septic systems provided sewer service to the Site, but he was unaware of the location of the exact locations of the leach fields; suspected locations, however, were indicated by Mr. Seidenglanz and are shown on Figure 2a.

Mr. Seidenglanz indicated that he does not have any redevelopment plans for the Site and instead plans to sell the Site once environmental assessments are completed. Mr. Seidenglanz provided the previously described Brown and Caldwell Phase I ESA Report for the Veatch Street extension through the Site and indicated that he plans to work with the City of Oroville to create an easement through the Site for the road extension, which would extend from north to south across the western portion of the Site. Mr. Seidenglanz indicated that the City of Oroville is preparing a grant application to Caltrans to secure funding for the road extension project, including for curb and gutter.

However, grant approval requires a “clean bill of health” with respect to environmental conditions. Eventual redevelopment of the remainder of the Site by a potential new owner would likely require rezoning this portion of the property from industrial to dense commercial. The source of water for a potential future redeveloped Site would likely remain California Water Service District.

Mr. Miller and Mr. and Mrs. Sykes reportedly foreclosed on one of the former Site owners. Mr. Miller and Mrs. Sykes stated that they were unaware of specifics concerning current or historical Site uses, but that to their knowledge, and with the possible exception of those related to lumber milling, that hazardous wastes were not generated at the Site. Neither Mr. Miller, nor Mrs. Sykes were aware if there have been any releases of hazardous materials, petroleum products, and/or hazardous waste at the Site.

Mr. Miller and Mr. Seidenglanz stated that they were not aware of environmental cleanup liens or activity and use limitations (e.g., engineering controls, deed restrictions) that have been recorded for the Site. They were not aware of pending or threatened litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the Site. They were not aware of notices from governmental entities regarding possible violations of environmental laws or possible liability relating to hazardous substances or petroleum products at the Site.

## USER REQUIREMENTS

In order to qualify for one of the landowner liability protections offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (discussed in the “Background” section), 40 CFR 312 requires that the user (Client) provide the following information to the environmental professional. Mr. Donald Rust, Director of City of Oroville Planning and Development, completed the User Questionnaire on September 18, 2015. The following table summarizes the responses by the Client. The Site owner, Mr. Steven Seidenglanz, also completed a User Questionnaire on July 14, 2015. Copies of the completed User Questionnaires are included in Appendix G.

Question	Response
Have environmental cleanup liens been filed or recorded against the Site?	N/A
Are activity or land use limitations in place at the Site, or have they been filed or recorded in the registry?	N/A
Does the user have specialized knowledge or experience in connection with the Site?	No
Does the purchase price being paid for the Site reasonably reflect the fair market value of the Site?	N/A
Is the Client aware of commonly known or reasonably ascertainable information about the Site that would indicate releases or threatened releases?	Yes
Are there obvious indications that point to the presence of contamination at the Site?	Yes

N/A = Not Applicable.

## DATA GAPS IN CONNECTION WITH CURRENT SITE LAND USE

Based on observations and research, and with the possible exceptions discussed below, there are no obvious indications of data gaps in connection with the current Site land use:

- **Access Limitations:** two sheds and the administrative office buildings were not accessible at the time of our Site reconnaissance. This data gap is not a significant data gap in our opinion based on the availability of other relevant information and known past uses of the administrative buildings.
- **Interview Gap:** the current Site and past Site owners did not have contact information for previous tenants of the Site. Additionally, SCS was unable to find contact

information for previous Site tenants via online searches. Therefore, interviews were not conducted with previous Site tenants. This data gap is not a significant data gap in our opinion based on the availability of other relevant information.

### Findings and Opinions—Current Site Land Use

Based on observations and research and with the exceptions below, it is our opinion that there are no recognized environmental conditions at the Site as a result of the current Site land use.

## SITE SETTING – CLIMATE, TOPOGRAPHY, GEOLOGY, HYDROGEOLOGY, AND WATER QUALITY SURVEY

### Climate

The climate of Oroville varies by season, with rainfall concentrated in the winter months. Summer conditions in Butte County are typically characterized by high temperatures and low humidity, with temperatures averaging approximately 90°F during the day and 50°F at night. During the summer months, the prevailing winds are typically from the south. Winter conditions are characterized by occasional rainstorms interspersed with stagnant and sometimes foggy weather. The daytime average temperature is in the low 50s°F and nighttime temperatures average in the upper 30s°F. During winter, winds predominate from the south, but north winds frequently occur. Rainfall occurs mainly from late October to early May, with an average of 17.2 inches per year. This amount can vary significantly from year to year (Butte County, 2010).

The Site lies in the Feather River flood plain, which is approximately 2.7 miles wide near the Site. Shallow placers were mined here during the gold rush. The area was settled in 1849: Oroville originally was known as Ophir City, but the name was changed in 1855. Around 1895, W. P. Hammon and others tested the area to determine the feasibility of mining on a large scale. They introduced bucket-line dredging in 1898, the first in California. The field was highly productive from 1903 to 1916; in 1908 there were 35 dredges and 12 dredging companies active in the field (California Department of Mines and Geology [CDMG], 1976). Output later declined, but dredging was done again from 1936 to 1942 and 1945 to 1952 and the dredge field became an important source of sand and gravel. The total output of gold derived from the dredging operations has been estimated at 1,964,000 ounces of gold.

### Topography

A topographic map for the Site vicinity was reviewed and is summarized in the following table.

<b>Reported Elevation</b>	Ranges from approximately 164 to 190 feet above mean sea level (msl)
<b>Reported Slope Direction</b>	Slopes down to the northwest
<b>Source</b>	Google Earth Pro and United States Geological Survey 7.5 Minute Topographic Map, Oroville Quadrangle, California – Butte County, 1970

The topography in the Site and vicinity were modified in the early 1900s by gold mining dredge operations as noted above. The dredging resulted in placement of sand and gravel derived from the Feather River onto the adjacent flood plain, including the Site. Much of the dredged material was later used in constructing the Oroville Dam in the 1950s and 1960s (source), however, the Site remains “perched” on dredge deposits, and is topographically higher than most nearby properties. A geological map for the Site vicinity was reviewed and is summarized in the following table.

<b>Reported Formation</b>	Mesozoic Eugeosynclinal Deposits
<b>Reported Description</b>	Compressed, deformed, and uplifted sedimentary rock strata that accumulated in a linear trough or basin
<b>Source</b>	Schruben, P.G., Arndt, R.E., and Bawiec, W.J., <i>Geology of the Conterminous U.S.</i> , U.S. Geological Survey Digital Data Series, 1:2,500,000 scale, 1994

Oroville is the county seat of Butte County, situated at the head of navigation on the Feather River. The Yuba River flows into the Feather River near Marysville, California, and these flow together to the Sacramento River. Geologically, Oroville is situated at the meeting place of three provinces: the Central Valley alluvial plain to the west, the crystalline Sierra Nevada to the southeast, and the volcanic Cascade Mountains to the north. The Site is located on the northeastern edge of the Sacramento Valley, within the northern portion of the Great Valley Geomorphic Province of California. The Great Valley Geomorphic Province is bordered to the north by the Cascade and Klamath Ranges, to the west by the Coast Ranges, to the east by the Sierra Nevada, and to the south by the Transverse Ranges. The Great Valley is approximately 465 miles in length and averages about 50 miles wide. Formation of the valley occurred by tectonic shifting of the Sierran Block; the western side dropping to form the valley and the eastern side being uplifted to form the Sierra Nevada.

The valley has been filled with a relatively thick deposit of heterogeneous marine and lacustrine sediments, and surficial alluvial materials derived from erosion of the adjacent Sierra Nevada to the east and the Coast Ranges to the west. The sedimentary rocks are mainly Cretaceous. The depth of the sediments varies from a thin veneer at the edges of the valley to depths in excess of 50,000 feet.

The Site is located where fluvial deposits of the ancestral and modern Feather River flood plain about the foothills of the Sierra Nevada. The subject site is located atop sediments composed of interbedded volcanoclastic deposits of gravel, sand, and tuff. The U.S. Geological Survey (USGS) Geologic Map of the Late Cenozoic Deposits of the Sacramento Valley and Northern Sierran Foothills, California (Helley and Harwood, 1985; 1:62,500) maps surficial geology at the site as the Laguna Formation, and lists the age as Pliocene. The sediments of the Laguna Formation overlie the Mehrten Formation and are truncated by the Red Bluff formation above. Undivided Quaternary basin deposits from the Feather and ancestral Feather River systems are present in the Feather River flood plain, with thickly and thinly bedded and interbedded clay, sand, and gravel deposits of fluvial origin. These soils vary in thickness and composition both horizontally and vertically across the Site.

The near-surface alluvial sediments have been mined for their gold content by dredging that was conducted from the late 1800s through the mid 20<sup>th</sup> century. Extensive deposits of dredge tailings cover square miles of the valley floor to the west and south of Oroville. The tailings generally consist of sand and gravel with cobbles and occasional boulders. The tailings generally become siltier/finer-grained with depth. Dredge tailing materials are mapped as covering the subject site on a 1949 USGS topographic map.

The exploratory drilling at the subject site encountered semi-consolidated deposits of the Laguna Formation beneath unconsolidated sandy gravels and cobbles near the surface (dredge tailings material) and intermediate-depth unconsolidated silty sands and silts. The fault nearest the Site is the Foothills Fault System (Cleveland Hill Fault) located approximately six miles east-southeast of the Site (Saucedo and Wagner, 1992).

### Hydrogeology

Data regarding depth to groundwater and flow direction for the Site were not readily available. In the absence of Site-specific data, depth to groundwater and flow direction information was reviewed for properties within the Site vicinity using the SWRCB GeoTracker database. The following table summarizes the results of this review.

<b>Property Location</b>	890 Oro Dam Boulevard, Oroville, California
<b>Reported Depth to Groundwater</b>	6 to 14 feet below ground surface (bgs) – note this property is approximately 35 feet lower relative to the Site.
<b>Reported Groundwater Flow Direction</b>	West-Southwesterly (towards Feather River)
<b>Source</b>	E <sub>2</sub> C Remediation, Third Quarter 2009 Groundwater Monitoring and Remediation Status Reports, Former Tom's Sierra Station #10, 890 Oro Dam Boulevard, Oroville, California, December 3, 2009 (E <sub>2</sub> C Remediation, 2009)

Several interconnected aquifer zones have been defined in the Site vicinity with the regional ground water flow generally to the south, with upper aquifers demonstrating some southwesterly components (USEPA, 2008 and US Army Corp of Engineers [USACE], 2013). The predominant groundwater flow direction is west-southwest toward the Feather River. The depth to the shallow aquifer is expected to be approximately 45 feet bgs. A shallow aquitard, consisting primarily of clay, is present approximately 110 feet bgs. The Feather River is a groundwater discharge feature that is expected to impart a west-southwesterly flow influence on local groundwater. However, there are many variables which influence depth to groundwater and flow direction and that the actual depth to groundwater and flow direction at the Site may be different than presented in this section.

### Water Quality Survey

The following table summarizes the reported water quality in the Site vicinity.

<b>Reported Hydrologic Subarea</b>	Sacramento River
<b>Reported Hydrologic Area</b>	Upper Sacramento River Basin (5A)
<b>Reported Hydrologic Unit</b>	Feather River (18020106)
<b>Reported Beneficial Use</b>	Municipal, Agricultural, Recreational, Freshwater and Wildlife Habitat
<b>Source</b>	California RWQCB, Central Valley Region, <i>Water Quality Control Plan for the Sacramento River and San Joaquin Basins</i> , September 15, 1998, fourth edition (Central Valley Regional Water Quality Control Board [CVRWQCB], 1998).

## SITE VICINITY RECONNAISSANCE AND OFF-SITE SOURCE SURVEY

### Current Site Vicinity Conditions

The following table summarizes land use and observations in the immediate Site vicinity<sup>v</sup>. For the purpose of this Report, the immediate Site vicinity includes those properties judged to be adjacent<sup>5</sup> to the Site.

Direction	Land Use	Comments
North	Oro Dam Boulevard, Automobile Dealership (Oro Dam Auto Center – 1250 Oro Dam Blvd), Automobile Parts (Oroville Chevrolet Parts – 1250 Oro Dam Blvd), Automobile Rental (Dollar Rent A Car– 1450 Oro Dam Blvd, Hertz Rent A Car – 1450 Oro Dam Blvd), and Automobile Servicing (Jiffy Lube– 1450 Oro Dam Blvd) (Figure 2a)	No obvious indications of the use, storage, or generation of hazardous materials/wastes or petroleum products were observed.
East	Union Pacific Railroad corridor, vacant land	No obvious indications of the use, storage, or generation of hazardous materials/wastes or petroleum products were observed.
South	Vacant land, materials Storage	No obvious indications of the use, storage, or generation of hazardous materials/wastes or petroleum products were observed.

5. *Adjacent* is defined by ASTM E1527-13 as any real property or properties the border of which is contiguous or partially contiguous with that of the Site or that would be contiguous or partially contiguous with that of the Site but for a street, road, or other public thoroughfare separating them.

Direction	Land Use	Comments
West	Vacant land, commercial properties	No obvious indications of the use, storage, or generation of hazardous materials/wastes or petroleum products were observed.

### Environmental Regulatory Database Report

An environmental regulatory database report (Radius Map™ Report<sup>vi</sup>) was prepared by EDR for the Site. Local, state, and federal regulatory databases were reviewed for the Site and for those facilities within up to one mile of the Site. The Radius Map™ Report was reported to have been prepared in general accordance with the ASTM standard for the regulatory database review for Phase I ESAs. The locations of the referenced facilities relative to the Site are shown on the EDR overview maps, included in the Radius Map™ Report. A description of the various databases, as well as the date each database was most recently updated, is included in the Radius Map™ Report, which is included in the Appendices to this Report.

Based on a review of the Radius Map™ Report, the following table summarizes the facilities within the selected search radii and whether the Site or a facility that was interpreted to be adjacent to the Site was listed on each database.

Federal or State Government Database	Search Radius	Number of Reported Facilities	On Site	Adjacent to the Site
National Priorities List (NPL)	1.00 mile	0	No	No
NPL Delisted	1.00 mile	1	No	No
Comprehensive Environmental Response Compensation and Liability System (CERCLIS)	0.50 mile	0	No	Yes
No Further Remedial Action Planned (NFRAP)	0.50 mile	NR	NR	NR
Resource Conservation and Recovery Act– Corrective Action (RCRA CORRACTS)	1.00 mile	0	No	No
RCRA Treatment and Disposal Facilities (RCRA TSD)	0.50 mile	0	No	No
RCRA Generators (RCRA GEN)	0.25 mile	2	No	No
Federal Engineering and Institutional Controls (IC/EC)	0.50 mile	0	No	No
Emergency Response Notification System (ERNS)	0.12 mile	NR	NR	NR
State/Tribal- Equivalent NPL	1.00 mile	NR	NR	NR
State/Tribal-Equivalent CERCLIS	1.00 mile	NR	NR	NR
State/Tribal Solid Waste List (SWL)	0.50 mile	NR	NR	NR

Federal or State Government Database	Search Radius	Number of Reported Facilities	On Site	Adjacent to the Site
State/Tribal Leaking Underground Storage Tanks (LUST)	0.50 mile	10	No	Yes
State/Tribal Underground/Aboveground Storage Tanks (USTs/ASTs)	0.25 mile	5	Yes	No
State/Tribal Voluntary Cleanup Program (VCP)	0.50 mile	1	No	Yes
Federal Brownfields	0.50 mile	1	Yes	No
Local Land Records (DEED)	0.50 mile	0	No	No
Other (Haznet)	0.12 mile	2	Yes	No
EDR Proprietary Records (Historical Auto Stations and Cleaners)	0.25 mile	14	Yes	No

N/A = Not applicable

The Site was listed on the following databases:

- HAULERS database as Macs Quality Used Tires;
- FINDS database as Bettendorf Enterprises;
- HIST UST database as Las Plumas Lumber;
- US Brownfields database as Veatch Street Extension;
- AST database as Bettendorf Enterprises;
- HAZNET database as Bettendorf Enterprises;
- EDR US Hist Auto Stations database as 1245 Oro Dam Boulevard; and,
- HAZNET database as Tim Miller.

The HIST UST database lists five historical USTs on the Site, including a 10,300 gallon diesel, 7,000 gallon diesel, 8,000 gallon unleaded gasoline, 2,000 gallon regular gasoline, and 1,000 gallon waste oil UST located at the Las Plumas Lumber facility. The AST database notes a 20,000 gallon AST on the Site located at the Bettendorf Enterprises Inc. facility. The EDR US Hist Auto Stations database notes that Oroville All Phase Auto operated a facility at the Site in 2011. The HAZNET database notes the off-facility disposal of 0.6 tons of contaminated soil from Site clean-up.

Regulatory agency files reviewed for the Site are discussed in the “Site Research” section above.

Off-Site facilities listed in the Radius Map™ Report were evaluated as to their potential to impact the Site. The databases included in the Radius Map™ Report can be grouped into two general categories: databases reporting unauthorized releases of hazardous substances or petroleum products (e.g., LUSTs, RCRA COR ACT facilities, National Priorities List or NPL

[a.k.a. Superfund] sites) and databases reporting permitted hazardous materials users and hazardous waste generators for which a release has not been reported to, and recorded by, the regulatory agency.

SCS evaluated each of the off-Site facilities listed in the Radius Map™ Report as to their potential to impact the Site, based on the following factors:

- Reported distance of the facility from the Site<sup>6</sup>.
- The nature of the database on which the facility is listed, and/or whether the facility was listed on a database reporting unauthorized releases of hazardous materials, petroleum products, or hazardous wastes.
- Reported case type (e.g., soil only, failed UST test only).
- Reported substance released (e.g., chlorinated solvents, gasoline, metals).
- Reported regulatory agency status (e.g., case closed, “no further action”).
- Location of the facility with respect to the reported groundwater flow direction (discussed in the “Hydrogeology” section of this Report).

The following sections discuss off-Site facilities identified on regulatory databases within the required search radii. When evaluating the EDR databases for sites or cases which could potentially impact the Site, SCS used the following criteria to refine the list of sites or cases for further review:

1) **UST open release cases within 1,000 feet and hydraulically upgradient, or open/adjacent UST release cases.** Based on “Technical Justification for Groundwater Media-Specific Criteria,” (Groundwater Study) (March 2012) developed to support the State of California “Low Threat Closure Policy” (adopted May 2012), “plume length studies recognize that petroleum plumes stabilize in length due to natural attenuation.” The Groundwater Study goes on to cite Shih et. al., 2004 that a peer-reviewed study of plume lengths at 500 petroleum UST sites in the Los Angeles area is widely accepted as representative of plume lengths at California UST sites. Shih et. al. reports benzene, methyl tertiary butyl ether (MTBE), and total petroleum hydrocarbons as gasoline (TPHg) with 90th percentile maximum plume lengths of 540 feet for MTBE. Therefore, the detailed review radius for open groundwater cases has been conservatively established by SCS at 0.20 miles (approximately 1,000 feet). For non-release

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<sup>6</sup> Based on “Technical Justification for Groundwater Media-Specific Criteria,” (Groundwater Study) (March 2012) developed to support the State of California “Low Threat Closure Policy” (adopted May 2012), “plume length studies recognize that petroleum plumes stabilize in length due to natural attenuation.” The Groundwater Study goes on to cite Shih et. al., 2004 that a peer-reviewed study of plume lengths at 500 petroleum UST sites in the Los Angeles area is widely accepted as representative of plume lengths at California UST sites. Shih et. al. reports methyl tertiary butyl ether (MTBE), with 90<sup>th</sup> percentile maximum plume lengths of 540 feet. Therefore, the detailed review radius for open groundwater cases has been conservatively established by SCS at 0.20 miles (approximately 1,000 feet). For non-release cases (e.g., permitted facilities), only those facilities that were judged to be immediately adjacent to the Site were interpreted to have the potential to represent a REC.

cases (e.g., permitted facilities), only those facilities that were judged to be immediately adjacent to the Site were interpreted to have the potential to represent a REC;

2) **Open volatile organic compound (VOC) release cases within 1/3 mile (1,600 feet) and hydraulically upgradient, or open/adjacent VOC release cases.** Empirical studies show that natural attenuation is much more prevalent at fuel-impacted sites compared to solvent-impacted sites. In the mid-1990s, Lawrence Livermore National Laboratory (LLNL) conducted a study of fuel-impacted sites in California, finding evidence of natural attenuation that limited plume length at more than 90% of 271 sites examined in detail. The study led to an October 1995 LLNL report to the SWRCB. A 1999 study of approximately 250 solvent plumes nationwide found much less evidence of natural attenuation (“Historical Case Analysis of Chlorinated Volatile Organic Compound Plumes”) by a group that included the U.S. Department of Energy and LLNL. This study concluded that the median solvent plume length was about 1,600 feet (as compared to 130 feet for fuel plumes) and that, in general, chlorinated solvent plume length is more sensitive to source strength (i.e., concentration and flow rate) than to natural attenuation. Therefore, the detailed review radius for open groundwater cases has been conservatively established by SCS at 0.30 miles (approximately 1,600 feet). For non-release cases (e.g., permitted facilities), only those facilities that were judged to be immediately adjacent to the Site were interpreted to have the potential to represent a REC; and,

3) **Open/adjacent release cases for all other (low mobility) chemicals such as metals, semi-volatile organic compounds (SVOCs), and PCBs.** Due to the limited mobility of chemicals such as metals, PCBs, and SVOCs, SCS reviewed only those facilities with open cases which were adjacent to the Site.

**Jiffy #1, 1408 Oro Dam Blvd, Oroville, adjacent to and north of the Site.** The Jiffy #1 facility is located adjacent to the north of the Site and the status listed in the LUST database is “Open – Site Assessment”. The CVRWQCB regulates assessment and cleanup of the facility. The aquifer has been impacted with an unauthorized release of gasoline from USTs at this facility. However, this facility is listed as being at lower elevation as compared with the Site. SCS reviewed the SWRCB GeoTracker website and found that this facility is actually located approximately two miles west of the Site and the location indicated in the EDR Report appears to be in error. As a result, there is low likelihood for this facility to have impacted the Site.

**Banks Industrial Pro, 1685 and 1647 Parker, adjacent to the Site.** The Banks Industrial Pro facility is listed as being adjacent to the Site in the voluntary cleanup program (VCP) database and at an equal or higher elevation as compared with the Site. The facility is reportedly a junkyard that has USTs. However, the database listing indicates that the case is status is “Inactive – Action Required”. The listed constituents of concern (COCs) include total petroleum hydrocarbons as diesel and motor oil. The listing indicates that “further investigation is required on all of the parcels.”

The DTSC EnviroStor website indicates that the facility “may be contaminated with hazardous substances, including petroleum hydrocarbons in the C13-C40 range (motor oil or diesel). The maximum concentration for the carbon ranges C13-C28 and C29-C40 were 1,200 milligrams per kilograms (mg/kg) and 18,000 mg/kg respectively.” Soil and surface water is indicated as the potential media affected. SCS contacted Ms. Leona Winner regarding the facility. Ms. Winner

confirmed that the Work Plan posted on the EnviroStor website has not been implemented and no further information could be provided regarding potential impacts at the facility. Due to the minimum distance from the Site (approximately 500 feet), it is unlikely that a release of heavy hydrocarbons such as diesel and motor oil has impacted the Site.

**Chico Metal Finishing, 3151 Richter Avenue, approximately 491 feet east-southeast from the Site.** The Chico Metal Finishing facility is listed at an equal or higher elevation as compared with the Site. The facility status is noted in the EnviroStor database as “Inactive – Needs Evaluation”. Potential COCs include PCE. SCS reviewed the Site Screening Assessment, dated September 26, 2013, available on the EnviroStor website. The Assessment indicates that no evidence that any releases have occurred at the facility and no further action was recommended by DTSC; USEPA concurred with this recommendation.

**Chlorinated Solvents, Fort Wayne Street, approximately 1,616 feet southeast of the Site.** The SLIC database lists the Chlorinated Solvents facility status as “Open – Inactive”. PCE is noted to have affected a municipal well in the vicinity. The SWRCB GeoTracker website does not have any additional information, so SCS contacted Mr. Bill Bergmann with CVRWQCB on May 6, 2015 to obtain further information concerning the case. Mr. Bergmann provided a technical report prepared by Partner (Partner, 2014). The Partner Report for the Chlorinated Solvents facility is discussed in detail in the CVRWQCB Records Review section above. Due to the position of the facility to the southeast of the Site, with the regional groundwater flow direction west-southwest towards Feather River, it is unlikely that a release from this facility has impacted the Site.

Based on one or more of the factors listed above, and with possible exceptions discussed in the Additional SCS Research section below, there is a low likelihood that the off-Site facilities listed in the Radius Map™ Report represent a REC in connection with the Site.

EDR listed nine facilities as being “orphans,” which are facilities for which EDR does not have sufficient information to accurately locate them on a map. Based on a review of the orphans, it is interpreted that none of the facilities are within the requisite search radii for their reported database listings, with the exception of Golden State Auto Body (1999 to 2012), located 1450 Oro Dam Boulevard, which is adjacent to the Site. Due to the age of this listing and the lack of a reported release, this facility is unlikely to have impacted the Site.

### **Additional SCS Research**

A copy of an historical Chain of Title Report was obtained from the Partner Report and is reviewed below (Partner, 2014). The Site was deeded to Roger Murray in 1932, then to a number of other individuals until 1993 when the Site is deeded to DG Shelter Products Company, Digiorgio Corporation, and Las Plumas Development in 1993. The Site was then deeded to Las Plumas Lumber Corporation in 1995, to PB and J Enterprises, Inc. in 1999, to LSPI Exchange Corporation later in 1999 and then to Jack M. Stebles, Trustee of the Jack M. Stebles Revocable Trust and the current owner, Steven (Robert) and Carol Seidenglanz in 2000. Robert E. Seidenglanz and others are listed as the current owners of the Site according to the Butte County Assessor’s records.

## Water Supply Wells

SCS personnel reviewed the EDR Physical Setting Source Map regarding water well and public water supply well locations within one mile of the Site and found seven listings, including one public drinking water supply well that based on testing results included in the EDR Report, is impacted with low levels of VOCs. The impacted well is located approximately 1,500 feet to the southeast of the Site and is likely the well referenced in the Partner Report (2014).

## California Division of Oil and Gas

SCS personnel reviewed the California Division of Oil and Gas Map regarding oil and gas well locations within one mile of the Site<sup>vii</sup>. There were no oil and gas wells interpreted to be located within a one-mile radius of the Site.

## DATA GAPS IN CONNECTION WITH OFF-SITE SOURCES

Based on the Site vicinity reconnaissance and off-Site source survey, there are no obvious indications of data gaps in connection with off-Site sources.

### Findings and Opinions—Off-Site Source Survey

Based on the off-Site source survey, several facilities in the Site vicinity were reported to have had releases of hazardous materials/waste or petroleum products. However, it is our opinion that there are no RECs at the Site as a result of known and reported releases of hazardous materials/wastes or petroleum products from an off-Site source. This opinion is based on one or more of the following: reported regulatory status (e.g., case closed), media affected (e.g., soil contamination only), distance from the Site, direction from the Site with respect to reported groundwater flow direction, and information obtained through a review of agency files.

## HISTORICAL LAND USE REVIEW

In accordance with the ASTM Standard and AAI rule, numerous reasonably ascertainable standard historical information sources were reviewed, and an attempt was made to interpret the historical Site and Site vicinity land use back to the obvious first developed use of the Site. Historical information was reviewed for the Site address, including historical aerial photographs, city directories, Sanborn fire insurance maps, historical topographical maps, local and State agency records, and previous environmental reports. The following table summarizes the historical resources reviewed as part of this Assessment.

Resource	Source	Years Available
Aerial Photographs	EDR Historical Aerial Photographs	1952, 1957, 1962, 1972, 1984, 1988, 1998, 2005, 2006, 2009, 2010, 2012
Historical Photographs	Butte County Historical Society	circa 1940 - 1958

Resource	Source	Years Available
City Directories	EDR City Directory	1970, 1974, 1980, 1985, 1990, 1992, 1995, 1999, 2003, 2008, 2013
Sanborn Fire Insurance Maps	EDR Certified Sanborn® Map Report	1926, 1949, 1962
Topographic Maps	EDR Historical Topographic Map Report	1895, 1912, 1944, 1949, 1970
Building Department Records	EDR Property Tax Map Report, EDR Building Permit Report, Oroville Building Department	EDR Property Tax Map Report: no coverage EDR Building Permit Report (Butte County: 1992-2015): no permits identified
City of Oroville Combined Records	Building/Code Enforcement/Fire Protection, Planning and Prevention Department	Files and Records from 1969 to 2008
Previous Environmental Report	A/C Industrial Services Corporation	Discussed in the "Review of Client-Provided Documents" section above
Environmental Health Department Records	Butte County Environmental Health Department	None available
Central Valley Regional Water Quality Control Board	Partner Engineering and Science, Inc., <i>Potentially Responsible Party Report</i>	2014
Interviews	Mr. Don Rust Mr. Steven Seidenglanz	2014; Discussed in the "Interviews" section above

### Historical Site Land Use

The following table provides a chronology of the apparent historical Site land uses, as interpreted from a review of information from the sources referenced.

Year	Interpreted Site Tenants (Source)	Interpreted Site Use
2015	Used tires sales and service company; a marble and granite contractor	Automobile tire sales and installation; Marble/granite sales and installation
2014	Bettendorf Trucking; Mac's Quality Used Tires, Inc. (Site Owner) (Partner, 2014)	Trucking and truck servicing; sales and recycling of tires
2013	Bettendorf Trucking; Fair Street Recycling (EDR City Directory)	Trucking and truck servicing; materials recycling
2008-2013	Bettendorf Trucking ; Midest USA, Inc. (EDR City Directory)	Trucking and truck servicing

Year	Interpreted Site Tenants (Source)	Interpreted Site Use
2003	Better Homes Land of Gold Realty; Butte County Investment Real Estate; Harry Stroud; Midest USA, Inc. (EDR City Directory)	Real estate sales and investment services
1997-1999	Endeavor Homes (A/C Phase I Report)	Prefabricated home construction
1997	Hampton Lumber (A/C Phase I Report)	Wholesale lumber “reload” business which stored and shipped packaged lumber units to retail outlets
1996-1997	North Valley Lumber and Truss (A/C Phase I Report)	Manufacturing pre-made trusses
1958-1995	Las Plumas Lumber Co. (EDR City Directory; EDR Certified Sanborn® Map Report; A/C Phase I Report) Note: 1968-1995 D’Georgio Corporation operated Site as Las Plumas Lumber	Lumber milling and treatment
1940-1958	High Sierra Pine Mills (A/C Phase I Report)	Lumber milling, re-manufacturing, wood treatment
1920s-1940	Swayne Lumber Company (A/C Phase I Report)	Lumber milling, re-manufacturing, wood treatment

In addition, records available at the City of Oroville document a number of tenants on-Site, as well as a variation in the number of structures and suites available for tenant occupancy. Several letters issued by the City request that the property owner provide a listing of the tenant spaces (numbers) and associated tenants. However, SCS was unable to find a comprehensive list. Figure 3 depicts an undated map of the on-Site structures and associated suite numbers – based upon the number of structures shown, and in conjunction with a review of historic aerial photographs, the map appears to represent a period in the early 2000’s.

Because many of the dates listed above are based on a limited selection of historical resources, they are considered to be approximations only; the actual beginning/ending dates for many of the Site uses listed above may have been earlier or later than indicated.

With the possible exceptions described below, no obvious historical facilities, features of concern, or land uses indicative of the use, storage, or generation of hazardous materials/wastes or petroleum products were found in the historical resources reviewed.

The land surface at the Site and in the vicinity to the south was altered by placement of materials dredged from Feather River during the late 1800’s and early 1900s. The Site ground surface is approximately 20 to 30 feet higher than property located north, across Oro Dam Boulevard. The Site was used extensively by several businesses for lumber milling and re/manufacturing over an approximately 75 year timeframe from the 1920s until 1997. Wood treatment potentially occurred at the Site over a maximum timeframe of approximately 30 years from the 1930s until

the late 1950s, the era during which chlorophenols such as PCP were used as a wood preservative.

A dip tank was reportedly used for wood treatment (applying an unknown preservative) at the Site by these historical operations. The dip tank use was reportedly halted in the late 1950s (A/C, 1999). The A/C Report indicated that PCP and/or creosote were used at the Site. Wood treatment chemicals containing PCP and other chlorophenols (tetrachlorophenol or TCP, and trichlorophenol) may have been used at the Site in the past as these chemicals, which were first produced in the 1930s, were in common use by wood treatment operations until the early 1980s, when they were no longer available to the general public in the U.S. Noxtane was the brand name for one fungicide, the primary active ingredient of which is PCP. Koppers T-1 Sapstain, in which the primary active ingredient is TCP, may have also been used for the same purpose.

Chlorophenols were often used in and around planer buildings and “green chains” during the eras in which High Sierra Pine Mills and Las Plumas Lumber Company operated lumber mills and dip tanks for wood treatment at the Site; widespread use of chlorophenols for wood treatment ceased in most areas of the U.S. by the mid to late 1980s. “Green chains” were common in which lumber was either dipped or sprayed with chlorophenols along a long, linear canopied or shed-like structure. One such structure is located on the western side of the largest Site building and may have been a green chain operation where wood treatment occurred. Such operations were characterized by dip tank(s), which would likely have been located at the ends of this green chain structure or at the connection point of the green chain with the main building where finished lumber products were being generated. It was often the case in wood treatment operations during the era in which High Sierra Pine Mills and Las Plumas Lumber Company operated the Site that excess chlorophenol chemicals, if used, dripped or were over-sprayed on to the ground near the dip tank and along the edges of the green chain. Excess product was sometimes reclaimed by the use of scrapers that scraped the chemicals back into a spray tank, which was often located below the planer, or into the dip tank(s), which were often located at one end of the green chain.

Chlorophenols, which are both long-lasting in the environment and especially toxic to aquatic life, if used at the Site, would be expected to remain in shallow soils around the former dip tank and any green chain that may have existed and could have potentially dissolved, and migrated through preferential pathways to impact groundwater. The historical presence of a dip tank and wood chemical treatment, potentially by PCP, at the Site would be considered an HREC that, in SCS’s opinion, should be further assessed.

In addition, to chemical wood treatment activities, historical Sanborn maps reveal the presence of a “40’ high steel burner” located at the north-central boundary of the Site, circa 1949 through 1962. The approximate location of the former steel burner is located as shown on Figure 2. “Teepee” burners, such as the one indicated on Sanborn maps that references a “steel burner” were often used by historical lumber mills to dispose unwanted wood ends and trimmed wooden pieces from finished lumber products by burning them in conical-shaped burners. Historical aerial photographs of the Site confirm the presence of a teepee burner at the Site as a circular structure in the same approximate location as shown on Sanborn maps. Due to the often large volume of burned organics, teepee burners are known sources of dioxins and furans at historical

lumber mill sites. Dioxins and furans are often concentrated in shallow soil in the ground beneath the teepee burner and in the downwind direction from the burner platform. The historical presence of a teepee burner at the former lumber mill site at the Site is considered to be an HREC that, in SCS's opinion, should be further assessed.

According to the A/C Report, prior to 1985, three USTs were reportedly removed under oversight of the City of Oroville Fire Chief, but no soil samples were collected from the excavation. The EDR HIST UST database lists five historical USTs on the Site at the Las Plumas Lumber facility whose sizes do not match those listed in the A/C Report and therefore may represent a different set of USTs, possibly from a different era of operations at the Site. 1926 Sanborn maps also show a 1,000-gallon steel fuel oil tank, oil storage areas, and oil houses at various locations throughout the Site. The presence of historical USTs and oil storage areas constitutes a HREC that, in SCS's opinion, should be further assessed.

### Historical Site Vicinity Land Use

The following table provides a chronology of the apparent historical Site vicinity land uses as interpreted from a review of information from the sources referenced.

Years	Interpreted Site Vicinity Tenants	Interpreted Site Vicinity Use
<b>1100 - 1450 Oro Dam Blvd (North)</b>		
1926-1949	Swayne Lumber; Note: Site is part of the Swayne Lumber facility	Lumber milling, machine shop, fuel tanks, vehicle and equipment repair shop, lumber storage
1949-1952	High Sierra Pine Mills Lumber Re-Manufacturing & Box Facility; Note: Site is part of the High Sierra Pine Mills Lumber facility (Richfield Oil Corp. and PG&E Co. Substation located farther to the north across Oro Dam Boulevard)	Lumber milling, wood treatment in a green chain, kilns for drying lumber, sawdust fuel vaults, boilers, etc. (Farther to the north, Richfield had an AST farm and PG&E had "open" transformers that, due to their age, may have contained PCBs)
1952-1984	Lumber mill	Lumber milling operations
1984 - Present	Multiple tenant of mixed commercial operations; Las Plumas Plaza Shopping Center; Grocery store; Auto dealership; Auto body repair, other Auto repair and sales services; Auto rental	Commercial warehousing; retail shopping and sales; auto sales and servicing; grocery sales
<b>2710 – 3181 Richter Avenue (East)</b>		
1940s - Present	Union Pacific Railroad tracks (prior to 1920s); Vacant land, Car wash, auto body shop (Feather River Wood Products Co., Crane Mills, Montgomery Ward, and other mixed commercial, multiple tenants – circa 1962 – farther to the east)	Railroad corridor; car washing, auto body repair, and vacant, undeveloped land (lumber milling/re-manufacturing, wood burning, and retail warehousing further east)

Years	Interpreted Site Vicinity Tenants	Interpreted Site Vicinity Use
<b>Unaddressed Parcels (South)</b>		
1952 - 1988	High Sierra Pine Mills Lumber Re-Manufacturing & Box Facility; Las Plumas Lumber	Lumber storage
1988 - Present	Union Pacific Railroad; Vacant; Cal Oak Products	Materials and equipment storage yard; undeveloped land; storage of oak wood products
<b>Unaddressed Parcel (West)</b>		
1952 - Present	Vacant, undeveloped land (Auto wrecking yard farther to west, circa 1962)	Vacant (auto wrecking farther to the west)

Because many of the dates listed above are based on a limited selection of historical resources, they are considered to be approximations only; the actual beginning/ending dates for many of the Site vicinity uses/development described above may have been earlier or later than indicated.

With the possible exceptions described below, no obvious historical facilities, features of concern, or land uses indicative of the use, storage, or generation of hazardous materials/wastes or petroleum products were found in the historical resources reviewed.

From approximately 1949 until the mid-1980s, the High Sierra Pine Mills Lumber Re-Manufacturing & Box Facility was located to the north of the Site (EDR Sanborn maps, circa 1949-1952). The facility operated steam dry kilns, a fuel vault, and a green chain for wood treatment. The kilns were apparently fueled with wood waste. The green chain was located approximately 400 feet to the north of the Site. In SCS's opinion, due to the distance from the Site and its cross-gradient hydrologic position, release(s), if any, from the green chain were unlikely to have affected the Site. The off-Site green chain is therefore considered to be a *de minimis* condition.

Farther to the north, Richfield Oil Corp. maintained a facility that had a gasoline tank farm and PG&E had "open" transformers (EDR Sanborn map, circa 1949). In SCS's opinion, due to the distance and hydrologic position (cross-gradient), it is unlikely that releases from these locations would have impacted the Site. Therefore, the gasoline tank farm and the transformers are considered to be a *de minimis* condition.

Feather River Wood Products Co. operated a lumber mill (EDR Sanborn map, circa 1962) to the east of the Site. The lumber mill had a teepee burner located along the western portion of the facility. The burner is labeled on a 1962 Sanborn map and is clearly shown on a 1962 historical aerial photograph. The teepee burner was located approximately 300 feet to the east of the eastern Site boundary. As mentioned earlier, the predominant summer time wind direction in the Site vicinity is toward the north, while winter time includes winds from the north. Therefore, in SCS's opinion, due to the distance of the burner from the Site boundary and prevailing wind conditions, the teepee burner associated with the Feather River Wood Products Co. site is unlikely to have impacted the Site and is therefore considered to be a *de minimis* condition.

See Appendix A for copies of the EDR Sanborn maps.

## VAPOR INTRUSION

The USEPA<sup>viii</sup> defines vapor intrusion (VI) as the migration of volatile chemicals from the subsurface into overlying buildings. Volatile organic chemicals in contaminated soils or groundwater can emit vapors, which may migrate through subsurface soils and may enter the indoor air of overlying buildings. Building depressurization may cause these vapors to enter the home through cracks in the foundation. Depressurization can be caused by a combination of wind effects and stack effects, which are the result of heating within the building and/or mechanical ventilation. In extreme cases, the vapors may accumulate in dwellings to levels that may pose near-term safety hazards, such as an explosion. Typically, however, vapor concentrations are present at low levels, to which long-term exposure may pose increased risk for chronic health effects.

The historical use of the Site (e.g., potential historical releases from USTs containing gasoline) and a review of nearby regulatory cases suggest a low to moderate likelihood of VI. This determination is based on the lack of evidence of a UST release and the distance of off-Site chemical releases that could cause VI on-Site. Based on the reported use of volatile compounds, which SCS was unable to confirm, we recommend a limited soil vapor survey. The Site was not evaluated for the potential for VI into the buildings, following the general methodology outlined in ASTM E 2600 10, and such testing is outside of the scope of this Phase I ESA.

## DATA GAPS IN CONNECTION WITH THE HISTORICAL SITE LAND USE

Readily available historical information was limited, and information was not available that would provide five-year data intervals between the following years: 1926 and 1949, and 1952. Based on the corroborating data from the historical information reviewed (i.e., the Site was interpreted to have been used for industrial lumber milling purposes in each of these years), SCS judged it likely that the historical Site land use during this time period was not significantly different from the interpretation presented in the table above.

Historical information prior to 1926 was not readily available. Thus, SCS is unable to determine the Site usage from the date of first development as recommended by ASTM. Based on SCS's experience and available historical information, the Site was interpreted to have possibly first been vacant, undeveloped land prior to construction of the lumber mill.

### **Findings and Opinions—Historical Site and Site Vicinity Land Use**

Based on a review of historical resources and with the possible exception(s) below, it is our opinion that there are HRECs at the Site as a result of a release of hazardous materials/wastes or petroleum products from a known or interpreted historical Site or Site vicinity land use.

The HRECs include:

The former dip tank and green chain area used for wood treatment, with potential application of

**Findings and Opinions—Historical Site and Site Vicinity Land Use**

PCP, other chlorophenols and/or creosote. The dip tank and green chain were reportedly located west of and exterior to the main on-Site warehouse building and according to Mr. Del Fleener, the dip tank was located on a concrete pad, upon which the current administrative office building was reportedly constructed. SCS recommends assessing shallow soils and groundwater in this area to evaluate the potential presence of residual COCs. The historic presence of a 40 foot high steel burner or teepee burner at the north-central boundary of the Site, circa 1949 through 1962 was likely used to dispose unwanted wood ends and trimmed wooden pieces from finished lumber products by burning them. Burning chlorophenol- and creosote-treated wood may have released dioxins and furans through dispersion. SCS recommends assessing shallow soil in the immediate vicinity of the former burner to evaluate the potential presence of COCs.

The Site reportedly housed USTs, including three which were reportedly removed under City of Oroville oversight without collection of soil samples from the excavation. In addition, five historical USTs were reportedly present at the Las Plumas Lumber facility, and may represent a different set of USTs. Finally, a 1926 Sanborn maps also show a 1,000-gallon steel fuel oil tank, oil storage areas, and oil houses at various locations throughout the Site. SCS therefore recommends assessing shallow soil and possibly groundwater in the immediate vicinity of the historical USTs and oil storage areas to evaluate the potential presence of COCs.

Several pits are present on-Site, including an approximately 4 foot by 4 foot pit in the approximately 74,000 square foot warehouse (possibly machine pits), an approximately 2 foot by 20 foot pit located in the former planing mill building (possibly machine pit or dip tank), and a vehicle and equipment service pit located inside the approximately 7,500 square foot warehouse. The pits may have been used to store wood treatment chemicals as well as equipment maintenance fluids (lubricants, solvents, and related compounds). Therefore SCS recommends assessing shallow soils in the immediate vicinity of the pits to evaluate the potential presence of COCs.

Prior Site investigations also identified evidence that the AST compound, mechanic's shop, former electrical shop, former oil house, and former machine shop used regulated or unregulated hazardous substances. Therefore SCS recommends assessing shallow soils in the immediate vicinity of these areas to evaluate the potential presence of COCs.

The Brown & Caldwell Report also identified significant quantities of solvent in various tenant spaces. SCS therefore recommends assessing shallow soil vapor to preliminarily evaluate the potential presence of residual VOCs in the Site subsurface.

## 5 CONCLUSIONS AND RECOMMENDATIONS

SCS has performed an Assessment of 1245 Oro Dam Boulevard, Oroville, California (Site), in general conformance with the ASTM Standard Practice for Phase I ESA Process E 1527-13 and the EPA, 40 CFR 312, Standards and Practices for AAI, Final Rule. Any exceptions to, or deletions from, the ASTM and AAI Scope of Work were previously described in this Report where applicable.

The Site has Assessor's Parcel Number (APN) of 035-270-016 and is located at 1245 Oro Dam Boulevard, Oroville, California. The Site formerly included 1255 Oro Dam Boulevard as an address, and the City of Oroville consolidated the Site addresses to 1245 Oro Dam Boulevard in 2012. The Site covers 38.75 acres (1,687,950 square feet) of land positioned adjacent and to the south of Oro Dam Boulevard. The Site is developed with a number of commercial buildings and warehouses, which, according to Butte County and other records, were constructed in the 1920s through circa 1946. The Site buildings encompass a total of approximately 103,000 square feet. The Site use is listed by Butte County Assessor's Office records as having a commercial use and industrial (M2) zoning, which is consistent with current Site use. With the possible exception(s) below, this Assessment has revealed no evidence of an REC in connection with the Site.

- Historical Site uses included trucking and truck servicing, lumber milling and re-manufacturing, wood treatment and burning, vehicle and equipment fueling, materials recycling, real estate sales and investment services, prefabricated home construction, and wooden truss construction. Current Site uses are for tire sales and service, granite sales and installation, and for equipment and materials storage. In SCS's opinion, there is a low likelihood that a REC exists as a result of current Site use.
- Site reconnaissance revealed the presence of four ASTs that are reportedly empty and no longer in use, located in a former fueling area. One empty AST is also located in the approximately 7,500 square foot warehouse along with a concrete-lined vehicle and equipment service pit. There were no indications of releases or leaks from the ASTs or in the service pit area. In SCS's opinion, there is a low likelihood that a REC exists due to the presence of the ASTs and service pit.
- The Site was historically used extensively by several businesses for lumber milling and re/manufacturing over an approximately 75 year timeframe from the 1920s until 1997. Historical lumber and wood manufacturing Site operators included: Swayne Lumber Company, High Sierra Pine Mills, Las Plumas Lumber, and Endeavor Homes. Wood treatment potentially occurred at the Site over a maximum timeframe of approximately 30 years from the 1930s until the late 1950s, the era during which chlorophenols such as PCP were used as a wood preservative. A dip tank was reportedly used for wood treatment at the Site by these historical operations, but its use reportedly ceased in the late 1950s. The A/C Phase I Report indicated that PCP and/or creosote were used at the Site (A/C, 1999). Several lined and unlined pits and potential former pits were identified in the approximately 74,000 square foot warehouse; the potential former pits may have been dip tanks for wood treatment operations as part of a green chain. A linear pit was also located in the former planing mill, which may have been a machinery pit or a dip tank. A pit overgrown with vegetation was also located in the foundation of a demolished building, located in the northwest portion of the Site. The exact historical usage of these pits is unknown, but in SCS's opinion, due to the historical use of wood treatment chemicals (e.g., dip tanks), the pits should be further assessed. The historical presence of dip tank(s) and wood chemical treatment, potentially by PCP, at the Site would be considered an HREC that, in SCS's opinion, should be further assessed.

- Historical Sanborn maps reveal the presence of a “40’ high steel burner” (wood waste incinerator or teepee burner) located at the north-central boundary of the Site, circa 1949 through 1962 (See Appendix A). Historical aerial photographs of the Site confirm the presence of a teepee burner at the Site as a circular structure in the same approximate location as shown on Sanborn maps. Due to the often large volume of burned organics, teepee burners are known sources of dioxins and furans at historical lumber mill sites. Dioxins and furans are often concentrated in shallow soil beneath the teepee burner and in the downwind direction from the burner platform. The historical presence of a teepee burner at the former lumber mill at the Site is considered to be an HREC that, in SCS’s opinion, should be further assessed.
- According to the A/C Report, prior to 1985, three USTs were reportedly removed under oversight of the City of Oroville Fire Chief, but no soil samples were collected from the excavation. Based on an interview with the current Site owner, Mr. Seidenglanz, the former USTs were located to the north of the fueling area. The EDR HIST UST database lists five historical USTs on the Site at the Las Plumas Lumber facility whose sizes do not match those listed in the A/C Phase I report and therefore may represent a different set of USTs, possibly from a different era of operations at the Site. 1926 Sanborn maps also show a 1,000-gallon steel fuel oil tank, oil storage areas, and oil houses at various locations throughout the Site. The presence of historical USTs and oil storage areas constitutes a HREC that, in SCS’s opinion, should be further assessed.

SCS therefore recommends assessing shallow soil and possibly groundwater in the immediate vicinity of the historical USTs and oil storage areas to evaluate the potential presence of COCs. The Brown and Caldwell Report also identified significant quantities of solvent in various tenant spaces. SCS therefore recommends assessing shallow soil vapor to preliminarily evaluate the potential presence of residual VOCs in the Site subsurface. The historical use of the Site (e.g., potential historical releases from USTs containing gasoline) and a review of nearby regulatory cases suggest a low to moderate likelihood of VI. This determination is based on the lack of evidence of a UST release and the distance of off-Site chemical releases that could cause VI on-Site. Based on the reported use of volatile compounds, which SCS was unable to confirm, we recommend a limited soil vapor survey.

- According to the October 25, 2000 listing obtained by Partner, a facility formerly located at the Site generated several different types of California State and Federal RCRA wastes in 1999 (Partner, 2014). The Site is listed as a generator of wastes described as: “Contaminated Soils from Site Clean-Up,” “Blank/Unknown,” and “Halogenated Solvents.” No records or reports were found showing that investigations were performed at the Site pertinent to the halogenated solvent spill and no history of releases were found. Due to the unknown nature of the contaminated soils and other unidentified substances, Mr. Tim Miller, former Site owner, was considered by Partner to be a potentially responsible party for the PCE contamination in CWS Well #05-01, which is located to the east of the Site. Mr. Tim Miller was ranked by Partner as 6 out of 7 PRPs for the chlorinated solvent impacts to CWS Well #05-01. In SCS’s opinion, potential release(s) of halogenated solvents from the Site and lack of documentation regarding assessment or

cleanup activities related to the release(s) constitutes a HREC that should be further assessed.

- The City provided a completed AAI Questionnaire as part of this Report with Question (6) “Obvious Indications of Contamination” checked with a “Yes” response, which was explained as follows:

–“There was a lack of regulatory handling and/or closure documentation for the former reported wood treatment tank, former teepee burner, former oil house, chemical cache, and former sump.

–There is direct evidence that the AST compound, mechanic’s shop, area of former USTs, former electrical shop, former oil house, and former machine shop were associated with the use of regulated or unregulated hazardous substances with no closure reports found”.

This Assessment has been conducted by environmental professionals whose qualifications<sup>7</sup> were made known to the Client. The conclusions and recommendations presented above are based on the review of readily available data obtained as part of this Assessment, current regulatory guidelines, the Site and Site vicinity reconnaissance, and SCS’s experience.

## 6 REPORT USAGE AND FUTURE SITE CONDITIONS

This Report is intended for the sole usage of the Client and other parties designated by SCS. The methodology used during this Assessment was in general conformance with the requirements of the Client and the specifications and limitations presented in the Consulting Agreement (Contract) between the Client and SCS. This Report contains information from a variety of public and other sources, and SCS makes no representation or warranty about the accuracy, reliability, suitability, or completeness of the information. Any use of this Report, whether by the Client or by a third party, shall be subject to the provisions of the Contract between the Client and SCS. Any misuse of or reliance upon the Report shall be without risk or liability to SCS.

Assessments are qualitative, not comprehensive, in nature and may not identify all environmental problems or eliminate all risk. For every property, but especially for properties in older downtown or urban areas, it is possible for there to be unknown, unreported recognized environmental conditions, USTs, or other features of concern that might become apparent through demolition, construction, or excavation activities, etc. In addition, the scope of services for this project was limited to those items specifically named in the scope of services for this Report. Environmental issues not specifically addressed in the scope of services for this project are not included in this Report.

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7. SCS declares that, to the best of its professional knowledge and belief, the reviewer meets the definition of Environmental Professional as defined in section 312.10 of 40 CFR 312 and has the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. SCS has developed and performed All Appropriate Inquiries in conformance with the standards and practices set forth in 40 CFR 312. The qualifications of the report preparers are included in the Appendices.

Land use, condition of the properties within the Site, and other factors may change over time. The information and conclusions of this Report are judged to have been relevant at the time the work described in this Report was conducted. This Report should not be relied upon to represent future Site conditions unless a qualified consultant familiar with the practice of Phase I ESAs in Butte County is consulted to assess the necessity of updating this Report.

The property owners at the Site are solely responsible for notifying all governmental agencies and the public of the existence, release, or disposal of any hazardous materials/wastes or petroleum products at the Site, whether before, during, or after the performance of SCS's services. SCS assumes no responsibility or liability for any claim, loss of property value, damage, or injury that results from hazardous materials/wastes or petroleum products being present or encountered within the Site.

Although this Assessment has attempted to assess the likelihood that the Site has been impacted by a hazardous material/waste release, potential sources of impact may have escaped detection for reasons that include, but are not limited to, (1) inadequate or inaccurate information rightfully provided to SCS by third parties, such as public agencies and other outside sources; (2) the limited scope of this Assessment; and (3) the presence of undetected, unknown, or unreported environmental releases.

## 7 SPECIAL CONTRACTUAL CONDITIONS BETWEEN USER AND ENVIRONMENTAL PROFESSIONAL

There were no special contractual conditions between the user of this Assessment, the environmental professional, and SCS.

## 8 REFERENCES

- A/C Industrial Services Corporation (A/C), 1999. *Environmental Assessment for Real Estate Transaction*, 1245 Oro Dam Boulevard, Oroville, CA, APN: 035-270-016, Phase I Environmental Site Assessment Process, ASTM E 1527-97, December 14.
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- Partner, 2014. *Potentially Responsible Party Report*, California Water Service Company, Well No. 05-01, 1752 Fort Wayne Street, Oroville, California, 95966, March 3.
- USACE, 2013. Third Five-Year Review Report for Western Pacific Railroad Superfund Site, Oroville, California, September 19.
- USEPA, 2008. Third Five-Year Review Report for Koppers Company, Inc. Superfund Site, Oroville, California, July.
- U.S. Geological Survey Miscellaneous Field Studies Map MF-1790

## 9 ENDNOTES

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- i. Site reconnaissance conducted by Paul A. Wisniewski (SCS) on May 15, 2015.
- ii. Records request—County of Butte Department of Environmental Health by Paul A. Wisniewski (SCS) on May 6, 2015.
- iii. Records request—City of Oroville Fire Department by Paul A. Wisniewski (SCS) on May 5, 2015 and again on May 11, 2015.
- iv. Records request—Central Valley Regional Water Quality Control Board (RWQCB) by Paul A. Wisniewski (SCS) on May 6, 2015.
- v. Site vicinity reconnaissance conducted by Paul A. Wisniewski (SCS) on May 15, 2015.
- vi. EDR, “Radius Map™ Report,” unpublished report prepared for 1245 Oro Dam Boulevard, Oroville, California, dated April 29, 2015.
- vii. California Division of Oil, Gas, and Geothermal Resources Online Mapping System, <http://maps.conservation.ca.gov/doms/doms-app.html>.
- viii. [http://www.epa.gov/AthensR/learn2model/part-two/onsite/jne\\_background\\_forward.html](http://www.epa.gov/AthensR/learn2model/part-two/onsite/jne_background_forward.html).