



SALEM
engineering group, inc.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

VACANT LAND
SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA

SALEM PROJECT NO. 4-416-1086
OCTOBER 10, 2016

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TABLE OF CONTENTS

Job No. 4-416-1086

| | | |
|-------------|---|-----------|
| 1.0 | EXECUTIVE SUMMARY | 1 |
| 2.0 | PURPOSE AND SCOPE OF ASSESSMENT | 3 |
| 2.1 | Purpose..... | 3 |
| 2.2 | Scope of Work | 3 |
| 3.0 | SITE DESCRIPTION..... | 4 |
| 4.0 | PHYSIOGRAPHY AND HYDROGEOLOGIC CONDITIONS..... | 4 |
| 5.0 | SITE RECONNAISSANCE | 5 |
| 5.1 | Observations | 5 |
| 5.2 | Adjacent Streets and Property Usage..... | 6 |
| 5.3 | Potable Water Source..... | 6 |
| 5.4 | Sewage Disposal System | 6 |
| 5.5 | Heating and Cooling Source | 6 |
| 6.0 | USER-PROVIDED INFORMATION..... | 6 |
| 6.1 | Title Report..... | 6 |
| 6.2 | Phase I Environmental Site Assessment User Questionnaire | 7 |
| 7.0 | SITE USAGE SURVEY | 7 |
| 7.1 | Phase I Environmental Site Assessment Owner Questionnaire | 7 |
| 7.2 | Historical Aerial Photograph Review | 8 |
| 7.3 | Building Department Records Review | 9 |
| 7.4 | City Directories..... | 9 |
| 7.5 | Sanborn Fire Insurance Maps | 9 |
| 7.6 | Agricultural Chemicals | 9 |
| 7.7 | Phase I Environmental Site Assessment Interview - Previous Owner..... | 9 |
| 7.8 | Previous Environmental Reports | 9 |
| 8.0 | REGULATORY AGENCY RECORDS REVIEW | 10 |
| 8.1 | Standard Environmental Record Sources | 11 |
| 9.0 | POTENTIAL VAPOR ENCROACHMENT CONDITION..... | 15 |
| 9.1 | Vapor Encroachment Screening | 15 |
| 10.0 | BUSINESS ENVIRONMENTAL RISKS..... | 16 |
| 10.1 | Asbestos-Containing Building Materials..... | 16 |
| 10.2 | Lead-Based Paint | 17 |
| 10.3 | Radon..... | 17 |
| 10.4 | Mold..... | 17 |
| 10.5 | Surface Water and Wetlands..... | 18 |
| 11.0 | DISCUSSION OF FINDINGS | 19 |
| 11.1 | Evaluation of Data Gaps/Data Failure | 20 |
| 12.0 | SUMMARY AND CONCLUSIONS | 20 |
| 13.0 | LIMITATIONS | 22 |
| 14.0 | QUALIFICATIONS | 23 |
| 15.0 | REFERENCES..... | 24 |



TABLE OF CONTENTS (cont'd)
Job No. 4-416-1086

PHOTOGRAPHS

Following the Text of the Report

FIGURES

Topographic Map.....1
Aerial Photograph.....2
Site Map.....3

APPENDICES

Preliminary Title Report.....A
Phase I ESA All Appropriate Inquiry (AAI) User Questionnaire.....B
Phase I ESA All Appropriate Inquiry (AAI) Owner QuestionnaireC
Aerial Photographs.....D
City Directory Abstract Report.....E
Sanborn Fire Insurance Maps No Coverage CertificationF
California Regional Water Quality Control Board RecordsG
EDR Radius Map ReportH
Professional ResumesI



October 10, 2016

Job No. 4-416-1086

PHASE I ENVIRONMENTAL SITE ASSESSMENT**VACANT LAND
SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA****1.0 EXECUTIVE SUMMARY**

SALEM Engineering Group, Inc. (SALEM) has conducted a Phase I Environmental Site Assessment (ESA) of the Vacant Land located on the southeast corner of State Highway 32 (Deer Creek Highway) and Bruce Road in Chico, California (subject property). The subject property comprises a 2.10-acre portion of an approximately 10.83-acre irregular-shaped parcel (Butte County Assessor's Parcel Number [APN] 002-180-084).

SALEM conducted this Phase I ESA of the subject property in conformance with the American Society for Testing and Materials (ASTM) E1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The U.S. Environmental Protection Agency (USEPA) has determined that the ASTM E1527-13 Standard is consistent with the requirements for conducting an "All Appropriate Inquiry" under 40 C.F.R. Part 312. Thus, this Phase I ESA constitutes All Appropriate Inquiry (AAI) designed to identify Recognized Environmental Conditions (RECs) in connection with the previous ownership and uses of the subject property as defined by ASTM E1527-13 and 40 C.F.R. Part 312.

ASTM E1527-13 Section 1.1.1 *Recognized Environmental Conditions* – The term *recognized environmental conditions* is defined as "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." The term as further defined by ASTM "is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." Conditions determined to be *de minimis* are not *recognized environmental conditions*.

SALEM identified no evidence of a REC in connection with the subject property as defined by ASTM E1527-13. However, the following Historical REC (HREC) was identified in connection with the subject property as defined by E1527-13:

- The subject property was listed in the Environmental Data Resources, Inc. (EDR) provided Radius Map Report on the Spills, Leaks, Investigations and Cleanup (SLIC) Database due to heavy metal-impacted soil encountered during the proposed widening of State Highway 32 along the south branch of Dead Horse Slough. According to California Regional Water Quality Control Board (RWQCB) records, waste material and contaminated sediment containing burn ash originating from the Humboldt Road Burn Dump (HRBD), located approximately 840 feet southeast of the subject property, is deposited on-site from the seasonal flow of the Dead Horse Slough which transects the subject property from southeast to northwest. The primary constituents of concern identified in the sediment of Dead Horse Slough were lead, arsenic, antimony, polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (dioxins). Remediation and confirmation soil

sampling activities of the HRBD were primarily conducted in 2004 and 2005 under the regulatory agency supervision of the RWQCB and the California Department of Toxic Substances Control (DTSC). Parcels included in the Final Remedial Action Plan, Humboldt Road Private Properties Operational Unit included APN 011-030-016; APN 011-030-136; APN 011-030-138; APN 011-030-139; APN 002-180-084 (subject property); and APN 002-180-086. The remedial action goals for lead, arsenic, antimony and dioxin at the HRBD were 224 milligrams per kilogram (mg/kg), 6.12 mg/kg, 31 mg/kg and 0.005 mg/kg, respectively. Approximately 139,000 loose cubic yards of burn ash and waste debris on APN 011-030-016; APN 011-030-136; APN 011-030-138; APN 002-180-084 (subject property); and APN 002-180-086 were removed and placed into two consolidation cells located approximately 980 feet southeast of the subject property in 2005. The consolidation cells are located on the north side of Humboldt Road, east of Bruce Road. The average residual lead concentration in the subject property area was reported to have been 55 mg/kg. The final lead concentration in soil from one out of 270 confirmation soil sample locations exceeded the remedial action goal of 224 mg/kg. A lead concentration of 264 mg/kg was detected in a sediment sample collected near Dead Horse Slough, approximately 100 feet south of the State Highway 32 box culvert (Sample BRCS-03) which is located on the subject property. The area of Dead Horse Slough where Sample BRCS-03 was collected was left undisturbed to serve as a buffer between the last sediment control check dam and the box culvert. Additionally, elevated concentrations of lead remain within the root zones of the larger Oak and Cottonwood trees growing in waste debris along Dead Horse Slough. In conjunction with the Stream Alteration Agreement issued by the California Department of Fish and Game (DFG), the property owners were required to leave the trees. Lead concentrations in the seven confirmation soil samples collected on the southern portion of the subject property indicated concentrations of lead ranged from 9.2 mg/kg to 92.9 mg/kg. No confirmation soil samples appeared to have been collected on the northern portion of the subject property. Confirmation soil sample analytical results indicated that concentrations of arsenic, antimony and dioxin did not exceed established remedial action goals. Based upon the results of the confirmation soil samples, the RWQCB issued a Certificate of Completion regarding the Site Investigation and Remedial Action of the HRBD for APN 002-180-084 (subject property) and APN 002-180-086. On January 31, 2006, five sediment samples were collected within the State Highway 32 right-of-way upstream of the box culvert (on the subject property) and within the right-of-way downstream of the box culvert on the adjoining property to the north. The sediment samples were analyzed for arsenic, antimony and lead. The lead concentration in Sample DHS-1 (517 mg/kg) exceeded the established remediation goal and was therefore, analyzed for soluble lead using the soluble threshold limit concentration (STLC) method. An STLC value of 5 milligrams per liter (mg/L) indicates that the material is a hazardous waste under California regulations for the purpose of remediation, treatment and disposal. The concentration of soluble lead (9.9 mg/L) in Sample DHS-1 exceeded the STLC for lead. An additional analysis of the Sample DHS-1 was conducted using deionized water in the waste extraction test (DI-WET). Whereas the STLC test uses an acid extractant, the DI-WET analysis is more representative of the potential for the sediments to leach lead under natural conditions in the slough. Soluble lead was not detected in the DI-WET test. Analytical results indicated that the sediment is considered to be a California-hazardous waste but not a Resource Conservation Recovery Act (RCRA)-hazardous waste.

SALEM recommends conducting a Limited Soils Assessment (LSA) in the northern portion of the subject property for the purpose of assessing on-site shallow soil for potential impacts from the aforementioned constituents of concern. The LSA will also be utilized to determine if excavated soils generated during construction activities are likely to be classified as a regulated waste (i.e. California- or RCRA-hazardous waste). Additionally, SALEM recommends preparation of a Soil Management Plan (SMP) which should be distributed to construction personnel. The SMP will establish protocols for handling, sampling, storage, and disposal of any suspected lead-impacted soils generated during construction activities.



2.0 PURPOSE AND SCOPE OF ASSESSMENT

2.1 Purpose

According to ASTM E1527-13, the purpose of this practice is to define good commercial and customary practice in the United States of America for conducting an *environmental site assessment* of a parcel of *commercial real estate* with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) and *petroleum products*. As such, this practice is intended to permit a *user* to satisfy one of the requirements to qualify for the *innocent landowner, contiguous property owner, or bona fide prospective purchaser* limitation on CERCLA liability (hereinafter, the “*landowner liability protections*,” or “*LLPs*”): that is, the practice that constitutes “*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice” as defined at 42 U.S.C. §9601(35) (B).

The Phase I ESA was conducted to identify ‘Recognized Environmental Conditions’ (RECs), ‘Controlled Recognized Environmental Conditions’ (CRECs) and ‘Historical RECs’ (HRECs) as defined by the American Society for Testing and Materials (ASTM) *Designation E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. Section 1.1.1 of the ASTM *Designation E1527-13* defines an REC as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to 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.” The term as further defined by ASTM “is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.” Section 3.2.18 defines a CREC as a “recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).” Section 3.2.42 defines HREC as a “past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and land use limitations, institutional controls, or engineering controls).”

2.2 Scope of Work

The objective of the SALEM Phase I ESA scope of work is to provide an evaluation of RECs at the subject property and potential off-site sources. The scope of work for this Phase I ESA conforms to ASTM E1527-13. SALEM was provided authorization to conduct the Phase I ESA by Mr. Raj Takhar on September 29, 2016, in accordance SALEM’s proposal P4-416-1574. In fulfillment of the SALEM scope of work for this Phase I ESA, SALEM was retained to perform the following tasks:

- Acquire readily available information regarding land-use history and property development by reviewing historical aerial photographs, pertinent building permit records, historic city directories, as well as reviewing recent and historic topographic land-use maps of the subject property and surrounding area.
- Reviewing readily available local, state and federal regulatory agency databases listed in ASTM E1527-13 and compiled by Environmental Data Resources, Inc. (EDR), including but not limited to CERCLA and NPL lists for sites within one mile of the subject property. State databases, including but not limited to CALSITES, Hazardous Substance Account Act, Cortese, SWIS, SWAT, Well Investigation Program (AB1803), and LUFT, were reviewed for sites within one mile of the subject property.



- Performing a reconnaissance of the subject property and surrounding areas (up to one-half mile beyond site boundary), with regard to potential off-site sources of degradation to the subject property, which included photograph documentation of subject property conditions, and identification of potential environmental concerns. Interviews with persons knowledgeable of the previous and current ownership and uses of the subject property.
- Identifying aboveground storage tanks and/or indications of underground storage tanks on-site.
- In addition to ASTM E1527-13, SALEM recognizes ASTM *Standard Guide for Vapor Encroachment Screening (VES) on Property Involved in Real Estate Transactions* (ASTM E2600-15) as an industry-accepted guideline to determine if a Vapor Encroachment Condition (VEC) exists at the target property. A VES consists of reviewing the Phase I ESA data combined with the application of professional judgment. SALEM evaluates the regulatory agency databases to determine if there are known or suspect contaminated sites within a minimum search distance of the target property. In addition, SALEM attempted to determine whether soil and/or groundwater have been impacted within the critical distances outlined in ASTM E2600-15.
- Preparing this report of SALEM's findings and recommendations if warranted.

3.0 SITE DESCRIPTION

The subject property comprises a 2.10-acre portion of an approximately 10.83-acre irregular-shaped parcel (Butte County APN 002-180-084) located on the southeast corner of State Highway 32 (Deer Creek Highway) and Bruce Road in Chico, California. Parcel 002-180-084 is transected by Bruce Road, with the 2.10-acre subject property lying on the east side of Bruce Road and the remainder of the parcel (approximately 8.73 acres) lying on the west side of Bruce Road. At the time of SALEM's October 6, 2016 site reconnaissance, the subject property was vacant land covered with native vegetation. A small creek (south branch of Dead Horse Slough) transects the subject property from the southeast to the northwest. The subject property is located in within Section 19, Township 22 North, Range 02 East, Mount Diablo Base and Meridian, Chico, California, 7.5-minute United States Geological Survey (USGS) topographic map, dated 2012.

4.0 PHYSIOGRAPHY AND HYDROGEOLOGIC CONDITIONS

The subject property lies near the northern end of the Sacramento Valley portion of the Great Valley Geomorphic Province. The Great Valley 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 transverse ranges. The valley formed by tilting of Sierran Block with the western side dropping to form the valley and the eastern side being uplifted to form the Sierra Nevada Mountain Range.

The valley is characterized by a thick sequence of sediments derived from erosion of the adjacent Sierra Nevada Mountain Range to the east and the Coast Range to the west. These sedimentary rocks are mainly Cretaceous in age. The depth of the sediments varies from a thin veneer at the edges of the valley to depths in excess of 50,000 feet near the western edge of the valley. In the vicinity of the subject property, these sediments are approximately 15,000 feet deep. According to published geologic maps, the subject property is underlain by Basin Deposits. The Basin generally consists of unconsolidated silts and clays deposited during flood events. Locally, east of Bruce Road, the surface geology consists of a bedrock unit referred to as a "fanglomerate," which is a volcanic mudslide containing rocks and boulders within a fine-grained mix of volcanic ash. Locally, this unit is sometimes referred to as the "lavacap," although it does not contain any material that would be classified geologically as lava. The fanglomerate unit is very hard and dense,



and contains few fractures. West of Bruce Road, the surface geology consists of unconsolidated valley fill sediments underlain by the Tuscan Formation. The Tuscan Formation consists of layers of sandstone and volcanic material (EMKO Environmental, Inc., June 2001). The area surrounding the subject property is characterized by a low relief surface, which generally slopes to the southwest. Major recharge areas for the northern Sacramento Valley are the Feather River and Butte Creek systems. The major discharge area for this portion of the northern Sacramento Valley is the Feather River.

Based upon California Regional Water Quality Control Board (RWQCB) records for the City of Chico Corporation Yard leaking underground storage tank (LUST) site at 901 Fir Street, located approximately 1.2 miles west-southwest of the subject property, groundwater was reported to be first encountered at a depth of approximately 9 feet below ground surface (bgs) with a general direction of flow towards the southwest during sampling conducted in May 2004.

5.0 SITE RECONNAISSANCE

A site reconnaissance, which included a visual observation of the subject property and properties within the subject area, was conducted by SALEM's environmental assessor on October 6, 2016. The objective of the site reconnaissance is to identify RECs, including the storage and handling of hazardous substances and petroleum products on or in the vicinity of the subject property which have the potential to environmentally impact on-site soils, surface water and groundwater.

5.1 Observations

Table I summarizes the visual observations made during our site reconnaissance. A discussion of the physical observations follows Table I. Refer to the Site Map (Figure 1) and color photographs following the text for the locations of the features discussed in this section of the report.

TABLE I
Summary of Observations during Site Reconnaissance

| FEATURE | OBSERVED | NOT OBSERVED |
|--|----------|--------------|
| Structures (existing) | | X |
| Evidence of past uses | | X |
| Hazardous substances and/or petroleum products (including containers) | | X |
| Aboveground storage tanks (ASTs) | | X |
| Underground storage tanks (USTs) or evidence of USTs | | X |
| Strong, pungent, or noxious odors | | X |
| Pools of liquid likely to be hazardous materials or petroleum products | | X |
| Drums | | X |
| Unidentified substance containers | | X |
| Pad-mounted/Pole-mounted transformers/capacitors/other PCB-containing equipment | | X |
| Subsurface hydraulic equipment | | X |
| Heating/ventilation/air conditioning (HVAC) | | X |
| Stains or corrosion on floors, walls, or ceilings | | X |
| Floor drains and sumps | | X |
| Pits, ponds, or lagoons | | X |
| Stained soil and/or pavement | | X |
| Stressed vegetation | | X |
| Waste or wastewater discharges to surface or surface waters on subject property (including stormwater) | | X |
| Wells (irrigation, domestic, dry, injection, abandoned, monitoring wells) | | X |
| Septic Systems | | X |

The subject property comprises a 2.10-acre portion of an approximately 10.83-acre irregular-shaped parcel (Butte County APN 002-180-084) located on the southeast corner of State Highway 32 (Deer Creek Highway) and Bruce Road in Chico, California. Parcel 002-180-084 is transected by Bruce Road, with the 2.10-acre subject property lying on the east side of Bruce Road and the remainder of the parcel



(approximately 8.73 acres) lying on the west side of Bruce Road. At the time of SALEM's site reconnaissance, the subject property was vacant land covered with native vegetation. A small dry creek (south branch of Dead Horse Slough) transects the subject property from the southeast to the northwest.

- During the visual observations of the subject property, no hazardous materials were observed to be stored or handled on the subject property. Exposed surface soils did not exhibit obvious signs of discoloration. No other obvious evidence (vent pipes, fill pipes, dispensers, etc.) of USTs was noted within the area observed. No standing water or major depressions were observed on the subject property. No indications of former structures, such as foundations, were observed on the subject property.

5.2 Adjacent Streets and Property Usage

Table II summarizes the adjacent streets and properties uses observed during the SALEM's site reconnaissance.

TABLE II
Adjacent Streets and Property Use

| DIRECTION | ADJACENT STREET | ADJACENT PROPERTY USE |
|-----------|------------------|---|
| North | State Highway 32 | Undeveloped Land; Residential Development |
| East | None | Undeveloped Land |
| South | Bruce Road | Undeveloped Land |
| West | Bruce Road | Undeveloped Land |

Based on the observed uses of the properties located immediately adjacent to the subject property, it is unlikely that significant quantities of hazardous materials are stored or handled at the adjacent properties.

5.3 Potable Water Source

SALEM's research indicates that no potable water has historically been supplied to the subject property. Upon development the water purveyor for the subject property will be the California Water Service Company (CWSC). The CWSC water quality monitoring is an on-going program with water samples obtained on a regular basis. It is the responsibility of the CWSC to provide customers with potable water in compliance with the California State Maximum Contaminant Levels (MCLs) for primary drinking water constituents in water supplied to the public.

5.4 Sewage Disposal System

SALEM's research indicates that no sewage disposal systems have historically serviced the subject property.

5.5 Heating and Cooling Source

No structures have historically been located on the subject property. No structures were observed during SALEM's site reconnaissance. No documentation of fuel oil use was identified during review of reasonably ascertainable records and no visual evidence of fuel oil use was identified during the site reconnaissance.

6.0 USER-PROVIDED INFORMATION

A review of the user-provided Title report and a Phase I ESA User Questionnaire was conducted in order to help identify pertinent information regarding potential environmental impacts associated with the subject property.

6.1 Preliminary Title Report

On September 29, 2017, a Preliminary Title Report for the subject property by First American Title Company, dated August 25, 2016 was provided to SALEM by Ms. Leslie Burnside with Barghausen Consulting Engineers. The Preliminary Title Report was reviewed to identify potential deed restrictions,



environmental liens or activity and use limitations (AULs) which may have occurred on or exist in connection with the subject property as indicated by the Preliminary Title Report. SALEM's review of the Preliminary Title Report indicated no deed restrictions, environmental liens or AULs for the subject property. However, as quoted from the Preliminary Title Report, "it is important to note that this document is not a written representation as to the condition of title and may not list all liens, defects and encumbrances affecting title to the land." Therefore, SALEM recommends that at the close of the real estate transaction and upon the issuance of the Final Title Report that the Final Title Report be reviewed and any information deviating from that presented in the Preliminary Title Report reviewed herein revealing evidence of RECs. Please refer to Appendix A for a copy of the Preliminary Title Report.

6.2 Phase I Environmental Site Assessment User Questionnaire

On September 29, 2016, SALEM was provided a completed Phase I ESA User Questionnaire from Mr. Raj Takhar. Please refer to Appendix B for a copy of the completed Phase I ESA User Questionnaire.

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"), the *user* must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete. The user is asked to provide information or knowledge of the following:

- Environmental cleanup liens that are filed or recorded against the site.
- Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry.
- Specialized knowledge or experience of the person seeking to qualify for the LLPs.
- Relationship of the purchase price to the fair market value of the *property* if it were not contaminated.
- Commonly known or *reasonably ascertainable* information about the *property*.
- The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation.

According to Mr. Takhar, to the best of his knowledge as the user of this Phase I ESA, he had no knowledge of environmental cleanup liens and no knowledge of activity or land use limitations that have been filed or recorded against the subject property, and Mr. Takhar has no specialized knowledge or experience of the prior nature of the business or chemical utilization on the subject property. Mr. Takhar indicated that he did not have knowledge of the past or current presence of specific chemicals or hazardous materials, unauthorized spills or chemical releases or of any environmental cleanup liens in connection with the subject property. Additionally, Mr. Takhar stated that the purchase price of the subject property reasonably reflects fair market value.

7.0 SITE USAGE SURVEY

In order to assess the subject property's history, SALEM reviewed a Phase I ESA Owner Questionnaire, historical aerial photographs, building department records, city directories, planning department records and SFIMs.

7.1 Phase I Environmental Site Assessment Owner Questionnaire

As of the date of issuance of this report, a completed Phase I ESA Owner Questionnaire had not been provided to SALEM. The Phase I ESA Owner Questionnaire is designed to provide pertinent information regarding potential environmental and historical impacts associated with the subject property. Upon receipt of a completed Phase I ESA Owner Questionnaire, and if the Phase I ESA Owner Questionnaire responses alter the conclusions and recommendations of the Phase I ESA, SALEM will issue an addendum to this report summarizing the Phase I ESA Owner Questionnaire responses. Please refer to Appendix C for a copy of the Phase I ESA Owner Questionnaire.



7.2 Historical Aerial Photograph Review

Historical aerial photographs of the subject property and vicinity, dated 1941, 1947, 1969, 1972, 1984, 1988, 1998, 2005, 2006, 2009, 2010 and 2012 were reviewed to evaluate changes in land-use for the subject property. The historical aerial photographs were supplied by EDR. Refer to Appendix D for a copy of the EDR-provided aerial photographs. A summary of the aerial photography is provided below:

➤ **1941 Aerial Photograph**

The subject property and all adjoining properties appear to be undeveloped land. What appears to be a small creek (south branch of Dead Horse Slough) transects the subject property from the southeast to the northwest.

➤ **1947 Aerial Photograph**

The subject property appears to be undeveloped land. The adjoining property to the north appears to be utilized for agricultural purposes. The adjoining properties to the east, south and west appear to be undeveloped land. What appears to be the Humboldt Road Burn Dump is located approximate 840 feet southeast of the subject property.

➤ **1969 Aerial Photograph**

The subject property appears to be undeveloped land. A two-lane paved road (State Highway 32) adjoins the subject property to the north, beyond which is undeveloped land. The adjoining properties to the east, south and west appear to be undeveloped land. What appears to be the Humboldt Road Burn Dump is located approximate 840 feet southeast of the subject property.

➤ **1972 Aerial Photograph**

The conditions on the subject property and adjoining properties are similar to the 1969 aerial photograph. What appear to be two lakes are located north of the subject property across State Highway 32.

➤ **1984 Aerial Photograph**

The conditions on the subject property and adjoining properties are similar to the 1972 aerial photograph.

➤ **1988 Aerial Photograph**

The conditions on the subject property and adjoining properties are similar to the 1984 aerial photograph. A two-lane paved road (Bruce Road) adjoins the subject property to the west and south. What appears to be the former Humboldt Road Burn Dump is located approximate 840 feet southeast of the subject property. Residential development is located around the two lakes north of State Highway 32.

➤ **1998 Aerial Photograph**

The conditions on the subject property and adjoining properties are similar to the 1988 aerial photograph. Increased residential development is observed around the two lakes north of State Highway 32. The former Humboldt Road Burn Dump is no longer discernable.

➤ **2005 Aerial Photograph**

The subject property is undeveloped land. The south branch of Dead Horse Slough transects the subject property from the southeast to the northwest. State Highway 32 adjoins the subject property to the north, beyond which is undeveloped land, a lake and residential development. Undeveloped land adjoins the subject property to the east, south and west. Bruce Road adjoins the subject property to the south and west. What appears to be a large soil mound that is capped (the Humboldt Road Burn Dump disposal cells) are located approximately 980 feet southeast of the subject property.



➤ **2006 Aerial Photograph**

The conditions on the subject property and adjoining properties are similar to the 2005 aerial photograph.

➤ **2009 Aerial Photograph**

The conditions on the subject property and adjoining properties are similar to the 2006 aerial photograph. The Humboldt Road Burn Dump disposal cells located approximately 980 feet southeast of the subject property appear to have been covered with soil and native vegetation.

2010 Aerial Photograph

The conditions on the subject property and adjoining properties are similar to the 2009 aerial photograph.

➤ **2012 Aerial Photograph**

The conditions on the subject property and adjoining properties are similar to the 2010 aerial photograph.

7.3 Building Department Records Review

On October 6, 2016, a records request was made to the City of Chico Building Department (CBD) for the subject property APN 002-180-084. According to a representative of the CBD, no building permits were on file for the subject property. Therefore, no records or building permits for items of environmental significance such as USTs, septic systems, building demolition, or previous structures are on file with the CBD for the subject property.

7.4 City Directories

On October 5, 2016, SALEM contracted with EDR to provide a City Directory Abstract dated 1964 through 2013 for the subject property and vicinity. The subject property was not listed in the EDR-provided City Directory Abstract. Please refer to Appendix E for a copy of the EDR-provided City Directory Abstract.

7.5 Sanborn Fire Insurance Maps

SALEM reviews SFIMs to evaluate prior land use at the subject property and adjacent properties. SFIMs typically exist for cities with populations of 2,000 or more, the coverage dependent on the location of the property. On October 5, 2016, SALEM contracted with EDR to provide a Fire Insurance Map Abstract indicating the availability of historic SFIMs for the subject property and adjacent properties as far back as 1867. EDR's search of collections at the Library of Congress, University Publications of America, and various public and local sources revealed no coverage for the subject property and adjacent properties. Refer to Appendix F for a copy of the EDR-provided SFIM No Coverage Certification.

7.6 Agricultural Chemicals

Review of historical aerial photographs dating to 1941 reveals that the subject property has not been utilized for agricultural purposes. Therefore, the use, storage and application of agricultural chemicals at the subject site are not considered an environmental concern.

7.7 Phase I Environmental Site Assessment Interview - Previous Owner

A Phase I ESA interview with the previous owner of the subject property was not reasonable ascertainable.

7.8 Previous Environmental Reports

SALEM was not provided with additional environmental reports for the subject property.



8.0 REGULATORY AGENCY RECORDS REVIEW

SALEM conducted a review of regulatory agency records for the purpose of determining if hazardous materials/hazardous wastes have been stored or handled on the subject property and area properties of environmental concern. The most current records available were reviewed.

California EPA, Department of Toxic Substances Control

SALEM's October 3, 2016 review of the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) Envirostor California cleanup sites database available via the DTSC Internet Website which tracks federal superfund sites, state response sites, voluntary cleanup sites, and school cleanup sites, indicated that no records of cleanup sites are on file with the DTSC for the subject property or adjacent properties with the exception of the Humboldt Road Burn Dump site which is discussed below.

California Regional Water Quality Control Board

SALEM's October 3, 2016 review of the RWQCB Geotracker leaking underground fuel tank (LUFT) database available via the RWQCB Internet Website indicated no records of LUFTs are on file with the RWQCB for the subject property or adjoining properties with the exception of the following:

According to RWQCB records, waste material and contaminated sediment containing burn ash originating from the HRBD, located approximately 840 feet southeast of the subject property, is deposited on-site from the seasonal flow of the Dead Horse Slough which transects the subject property from southeast to northwest. The primary constituents of concern identified in the sediment of Dead Horse Slough were lead, arsenic, antimony and dioxins. Remediation and confirmation soil sampling activities of the HRBD were primarily conducted in 2004 and 2005 under the regulatory agency supervision of the RWQCB and the DTSC. Parcels included in the Final Remedial Action Plan, Humboldt Road Private Properties Operational Unit included APN 011-030-016; APN 011-030-136; APN 011-030-138; APN 011-030-139; APN 002-180-084 (subject property); and APN 002-180-086. The remedial action goals for lead, arsenic, antimony and dioxin at the HRBD were 224 mg/kg, 6.12 mg/kg, 31 mg/kg and 0.005 mg/kg, respectively. Approximately 139,000 loose cubic yards of burn ash and waste debris on APN 011-030-016; APN 011-030-136; APN 011-030-138; APN 002-180-084 (subject property); and APN 002-180-086 were removed and placed into two consolidation cells located approximately 980 feet southeast of the subject property in 2005. The consolidation cells are located on the north side of Humboldt Road, east of Bruce Road. The average residual lead concentration in the subject property area was reported to have been 55 mg/kg. The final lead concentration in soil from one out of 270 confirmation soil sample locations exceeded the remedial action goal of 224 mg/kg. A lead concentration of 264 mg/kg was detected in a sediment sample collected near Dead Horse Slough, approximately 100 feet south of the State Highway 32 box culvert (Sample BRCS-03) which is located on the subject property. The area of Dead Horse Slough where Sample BRCS-03 was collected was left undisturbed to serve as a buffer between the last sediment control check dam and the box culvert. Additionally, elevated concentrations of lead remain within the root zones of the larger Oak and Cottonwood trees growing in waste debris along Dead Horse Slough. In conjunction with the Stream Alteration Agreement issued by the DFG, the property owners were required to leave the trees. Lead concentrations in the seven confirmation soil samples collected on the southern portion of the subject property indicated concentrations of lead ranged from 9.2 mg/kg to 92.9 mg/kg. No confirmation soil samples appeared to have been collected on the northern portion of the subject property. Confirmation soil sample analytical results indicated that concentrations of arsenic, antimony and dioxin did not exceed established remedial action goals. Based upon the results of the confirmation soil samples, the RWQCB issued a Certificate of Completion regarding the Site Investigation and Remedial Action of the HRBD for APN 002-180-084 (subject property) and APN 002-180-086. On January 31, 2006, five sediment samples were collected within the State Highway 32 right-of-way upstream of the box culvert (on the subject property) and within the right-of-way downstream of the box culvert on the adjoining property to the north. The sediment samples were analyzed for arsenic, antimony and lead. The lead concentration in Sample DHS-1 (517 mg/kg) exceeded the established remediation goal and was therefore, analyzed for soluble lead



using the STLC method. An STLC value of 5 mg/L indicates that the material is a hazardous waste under California regulations for the purpose of remediation, treatment and disposal. The concentration of soluble lead (9.9 mg/L) in Sample DHS-1 exceeded the STLC for lead. An additional analysis of the Sample DHS-1 was conducted using deionized water in the waste extraction test (DI-WET). Whereas the STLC test uses an acid extractant, the DI-WET analysis is more representative of the potential for the sediments to leach lead under natural conditions in the slough. Soluble lead was not detected in the DI-WET test. Please refer to Appendix G for copies of pertinent RWQCB records.

California Division of Oil, Gas, and Geothermal Resources

SALEM reviewed the California Division of Oil, Gas, and Geothermal Resources (DOGGR) website (<http://maps.conservation.ca.gov/doms/index.html>) to evaluate the potential for existing/former oil, gas, or geothermal wells on the subject property or adjoining properties. The subject property is located within DOGGR District 6. The subject property vicinity is not located within an oil, gas, or geothermal field. The review of DOGGR information does not indicate that an oil, gas, or geothermal well has been drilled on the subject or adjacent properties.

Butte County Environmental Health Department

On October 3, 2016, the Butte County Environmental Health Department (BCEHD) was contacted regarding records of USTs, historical hazardous/flammable permits, hazardous materials handling, and unauthorized releases of hazardous materials for the historical subject property APN 002-180-084. According to a representative with the BCEHD, no records of registered USTs, historical hazardous/flammable permits, hazardous materials handling, or unauthorized releases of hazardous materials are on file for the subject property with the exception of documents related to the assessment and remediation of the HRBD which were discussed above and will not be reiterated herein.

City of Chico Fire Department

On October 3, 2016, the City of Chico Fire Department (CFD) was contacted regarding records of historical hazardous/flammable permits, hazardous materials handling, hazardous/flammable incidents, and/or USTs for the subject property APN 002-180-084. According to a representative of the CFD, no records of historical hazardous/flammable permits, hazardous materials handling, registered USTs or unauthorized releases of hazardous materials were on file for the subject property.

Local Area Tribal Records

According to the EDR Radius Map Report, no tribal records are listed for the subject property or the adjacent properties.

8.1 Standard Environmental Record Sources

EDR performed a search of Federal, State and local regulatory agency databases for the subject property and surrounding area. The various search distances as required by ASTM E1527-13 extended up to one mile from the subject property. Several agencies have published documents that list businesses or properties which have handled hazardous materials or hazardous waste, or may have had a documented release of hazardous materials or petroleum products. The databases consulted in the course of this assessment were compiled by EDR on October 4, 2016 and represent reasonably ascertainable current listings. SALEM did not verify the locations and distances of every site listed by EDR. SALEM verified locations and distances of the sites SALEM deemed as having a potential to environmentally impact the subject property. The actual location of the off-site properties identified may differ from the EDR listing. Table III summarizes the listed properties located within the specified ASTM Search Radii. The EDR Radius Map report is included in Appendix H.



TABLE III
EDR Radius Map Summary

| DATABASE | TYPE OF RECORDS | SUBJECT PROPERTY | <1/8 MILE | 1/8 - 1/4 MILE | 1/4 - 1/2 MILE | 1/2 - 1 MILE |
|---|---|------------------|-----------|----------------|----------------|--------------|
| STANDARD ENVIRONMENTAL RECORDS | | | | | | |
| <i>Federal NPL Site List</i> | | | | | | |
| NPL | National Priorities List | 0 | 0 | 0 | 0 | 0 |
| Proposed NPL | Proposed National Priorities List | 0 | 0 | 0 | 0 | 0 |
| NPL LIENS | Federal Superfund Liens | 0 | --- | --- | --- | --- |
| <i>Federal Delisted NPL Site List</i> | | | | | | |
| Delisted NPL | National Priority List Deletions | 0 | 0 | 0 | 0 | 0 |
| <i>Federal CERCLIS List</i> | | | | | | |
| CERCLIS | Comprehensive Environmental Response, Compensation, and Liability Information | 0 | 0 | 0 | 0 | --- |
| Federal Facility | Federal Facility | 0 | 0 | 0 | 0 | --- |
| <i>Federal CERCLIS NFRAP Site List</i> | | | | | | |
| CERC-NFRAP | CERCLIS – No Further Remedial Action Planned | 0 | 0 | 0 | 0 | --- |
| <i>Federal RCRA CORRACTS Facilities List</i> | | | | | | |
| CORRACTS | Corrective Action Report | 0 | 0 | 0 | 0 | 0 |
| <i>Federal RCRA non-CORRACTS TSD Facilities List</i> | | | | | | |
| RCRA-TSDF | Transporters, Storage, and Disposal | 0 | 0 | 0 | 0 | --- |
| <i>Federal RCRA Generators List</i> | | | | | | |
| RCRA – LQG | RCRA – Large Quantity Generators | 0 | 0 | 0 | --- | --- |
| RCRA – SQG | RCRA – Small Quantity Generators | 0 | 0 | 0 | --- | --- |
| RCRA – CESQG | Conditionally Exempt SQG | 0 | 0 | 0 | --- | --- |
| <i>Federal Institutional Controls/Engineering Controls Registries</i> | | | | | | |
| US ENG CONTROLS | Engineering Controls Sites List | 0 | 0 | 0 | 0 | --- |
| US INST CONTROL | Sites with Institutional Controls | 0 | 0 | 0 | 0 | --- |
| LUCIS | Land Use Institutional Control Sites | 0 | 0 | 0 | 0 | --- |
| <i>Federal ERNS List</i> | | | | | | |
| ERNS | Emergency Response Notification System | 0 | --- | --- | --- | --- |
| <i>State and Tribal Equivalent NPL</i> | | | | | | |
| RESPONSE | State Response Sites | 0 | 0 | 2 | 0 | 0 |
| <i>State and Tribal Equivalent CERCLIS</i> | | | | | | |
| ENVIROSTOR | Envirostor Database | 0 | 0 | 2 | 1 | 1 |
| <i>State and Tribal Landfill and/or Solid Waste Disposal Site List</i> | | | | | | |
| SWF/LF | Solid Waste Information System | 0 | 0 | 1 | 0 | --- |
| <i>State and Tribal Leaking Storage Tank Lists</i> | | | | | | |
| LUST | Leaking Underground Storage Tanks | 0 | 0 | 0 | 1 | --- |
| SLIC | Statewide SLIC Cases | X | 3 | 1 | 1 | --- |
| INDIAN LUST | LUST on Indian Land | 0 | 0 | 0 | 0 | --- |
| <i>State and Tribal Registered Storage Tank Lists</i> | | | | | | |
| UST | Active UST Facilities | 0 | 0 | 0 | --- | --- |
| AST | Aboveground Storage Tank Facilities | 0 | 0 | 0 | --- | --- |
| INDIAN UST | USTs on Indian Land | 0 | 0 | 0 | --- | --- |
| FEMA UST | USTs | 0 | 0 | 0 | --- | --- |
| <i>State and Tribal Voluntary Cleanup Sites</i> | | | | | | |
| INDIAN VCP | Voluntary Cleanup on Indian Land | 0 | 0 | 0 | 0 | --- |
| VCP | Voluntary Cleanup Program Properties | 0 | 0 | 0 | 0 | --- |
| ADDITIONAL ENVIRONMENTAL RECORDS | | | | | | |
| <i>Local Brownfield Lists</i> | | | | | | |
| US BROWNFIELDS | Brownfield Sites | 0 | 0 | 0 | 0 | --- |
| <i>Local Lists of Landfill/Solid Waste Disposal Sites</i> | | | | | | |
| ODI | Open Dump Inventory | 0 | 0 | 0 | 0 | --- |
| DEBRIS REGION 9 | Illegal Dump Site Locations | 0 | 0 | 0 | 0 | --- |
| SWRCY | Recycler Database | 0 | 0 | 0 | 0 | --- |
| HAULERS | Registered Waste Tire Haulers Lists | 0 | --- | --- | --- | --- |



TABLE III (cont'd)
EDR Radius Map Summary

| DATABASE | TYPE OF RECORDS | SUBJECT PROPERTY | <1/8 MILE | 1/8 - 1/4 MILE | 1/4 - 1/2 MILE | 1/2 - 1 MILE |
|--|---|------------------|-----------|----------------|----------------|--------------|
| INDIAN ODI | Report on Open Dumps on Indian Land | 0 | 0 | 0 | 0 | --- |
| WMUDS/SWAT | Waste Management Unit Database | 0 | 0 | 1 | 0 | --- |
| Local Lists of Hazardous Waste/Contaminated Sites | | | | | | |
| US CDL | Clandestine Drug Labs | 0 | --- | --- | --- | --- |
| HIST Cal-Sites | Cal sites Database | 0 | 0 | 1 | 0 | 0 |
| SCH | School Property Evaluation Program | 0 | 0 | 0 | --- | --- |
| Toxic Pits | Toxic Pits Cleanup Act Sites | 0 | 0 | 0 | 0 | 0 |
| CDL | Clandestine Drug Labs | 0 | --- | --- | --- | --- |
| US HIST CDL | Historic Clandestine Drug Labs | 0 | --- | --- | --- | --- |
| Local Lists of Registered Storage Tanks | | | | | | |
| CA FID UST | Facility Inventory Database | 0 | 0 | 0 | --- | --- |
| HIST UST | Historical UST | 0 | 0 | 0 | --- | --- |
| SWEEPS UST | SWEEPS UST Lists | 0 | 0 | 0 | --- | --- |
| Local Land Records | | | | | | |
| LIENS 2 | CERCLA Lien Information | 0 | --- | --- | --- | --- |
| LIENS | Environmental Liens Listing | 0 | --- | --- | --- | --- |
| DEED | Deed Restriction Listing | 0 | 0 | 0 | 0 | --- |
| Records of Emergency Release Reports | | | | | | |
| HMIRS | Hazardous Materials Information System | 0 | --- | --- | --- | --- |
| CHMIRS | CA Hazardous Material Information System | 0 | --- | --- | --- | --- |
| LDS | Land Disposal Sites Listing | 0 | --- | --- | --- | --- |
| MCS | Military Cleanup Sites Listing | 0 | --- | --- | --- | --- |
| SPILLS 90 | List of Industrial Site Cleanups | 0 | --- | --- | --- | --- |
| Other Ascertainable Records | | | | | | |
| RCRA Non-Gen | Non-Generators | 0 | 0 | 0 | --- | --- |
| DOT OPS | Incident and Accident Data | 0 | --- | --- | --- | --- |
| DOD | Department of Defense Sites | 0 | 0 | 0 | 0 | 0 |
| FUDS | Formerly Used Defense Sites | 0 | 0 | 0 | 0 | 0 |
| CONSENT | Superfund Consent Decrees | 0 | 0 | 0 | 0 | 0 |
| ROD | Records of Decision | 0 | 0 | 0 | 0 | 0 |
| UMTRA | Uranium Mill Tailings Sites | 0 | 0 | 0 | 0 | --- |
| US MINES | Mines Master Index File | 0 | 0 | 0 | --- | --- |
| TRIS | Toxic Chemical Release Inventory System | 0 | --- | --- | --- | --- |
| TSCA | Toxic Substances Control Act | 0 | --- | --- | --- | --- |
| FTTS | FIFRA/TSCA Tracking System | 0 | --- | --- | --- | --- |
| HIST FTTS | FIFRA/TSCA Tracking System | 0 | --- | --- | --- | --- |
| SSTS | Section 7 Tracking Systems | 0 | --- | --- | --- | --- |
| ICIS | Integrated Compliance Information System | 0 | --- | --- | --- | --- |
| PADS | PCB Activity Database System | 0 | --- | --- | --- | --- |
| MLTS | Material Licensing Tracking System | 0 | --- | --- | --- | --- |
| RADINFO | Radiation Information Database | 0 | --- | --- | --- | --- |
| FINDS | Facility Index System | 0 | --- | --- | --- | --- |
| RAATS | RCRA Administrative Action Tracking | 0 | --- | --- | --- | --- |
| RMP | Risk Management Plans | 0 | --- | --- | --- | --- |
| CA BOND EXP. PLAN | Bond Expenditure Plan | 0 | 0 | 0 | 0 | 0 |
| UIC | UIC Listing | 0 | --- | --- | --- | --- |
| NPDES | National Pollutants Discharge Elimination | 0 | --- | --- | --- | --- |
| Cortese | Cortese Hazardous Waste & Substance Sites | 0 | 0 | 0 | 0 | --- |
| HIST CORTESE | Historical Cortese sites. | 0 | 0 | 1 | 0 | --- |
| CUPA Listings | CUPA Listing | 0 | 0 | 1 | --- | --- |



TABLE III (cont'd)
EDR Radius Map Summary

| DATABASE | TYPE OF RECORDS | SUBJECT PROPERTY | <1/8 MILE | 1/8 - 1/4 MILE | 1/4 - 1/2 MILE | 1/2 - 1 MILE |
|-------------------------------------|---|------------------|-----------|----------------|----------------|--------------|
| Notify 65 | Proposition 65 Records | 0 | 0 | 0 | 0 | 0 |
| DRYCLEANERS | Cleaner Facilities | 0 | 0 | 0 | --- | --- |
| WIP | Well Investigation Program Case List | 0 | 0 | 0 | --- | --- |
| ENF | Enforcement Action Listing | 0 | --- | --- | --- | --- |
| HAZNET | Facility and Manifest Data | 0 | --- | --- | --- | --- |
| EMI | Emissions Inventory Data | 0 | --- | --- | --- | --- |
| INDIAN RESERV | Indian Reservations | 0 | 0 | 0 | 0 | 0 |
| SCRD DRYCLEANER | State Coalition for Remediation of Cleaners | 0 | 0 | 0 | 0 | --- |
| WDS | Waste Discharge System | 0 | --- | --- | --- | --- |
| FINANCIAL ASSURANCE | Financial Assurance | 0 | --- | --- | --- | --- |
| PROC | Certified Processors Database | 0 | 0 | 0 | 0 | --- |
| HWT | Registered Hazardous Waste Transporter | 0 | 0 | 0 | --- | --- |
| HWP | Envirostor Permitted Facilities Listing | 0 | 0 | 0 | 0 | 0 |
| MWMP | Medical Waste Management Program | 0 | 0 | 0 | --- | --- |
| LEAD SMELTERS | Lead smelters | 0 | --- | --- | --- | --- |
| US AIRS | Coal Combustion Residues Surface List | 0 | --- | --- | --- | --- |
| COAL ASH EPA | Coal Combustion Residues Surface List | 0 | 0 | 0 | 0 | --- |
| EPA WATCH LIST | EPA watch List | 0 | --- | --- | --- | --- |
| US FIN ASSUR | Financial Assurance | 0 | --- | --- | --- | --- |
| PCB TRANSFORMER | PCB Transformer | 0 | --- | --- | --- | --- |
| 2020 COR ACTION | 2020 corrective action | 0 | 0 | 0 | --- | --- |
| PRP | Potential Responsible Party | 0 | --- | --- | --- | --- |
| COAL ASH DOE | Steam-Electric Plan Operation Data | 0 | --- | --- | --- | --- |
| EDR PROPRIETARY RECORDS | | | | | | |
| EDR Proprietary Records | | | | | | |
| EDR MGP | Manufactured Gas Plants | 0 | 0 | 0 | 0 | 0 |
| EDR US Hist Auto Stat | EDR Historical Auto Stations | 0 | 0 | 0 | --- | --- |
| EDR US Hist Cleaners | EDR Historical Cleaners | 0 | 0 | 0 | --- | --- |
| EDR Recovered Govt. Archives | | | | | | |
| RGA LUST | Leaky Underground Fuel Tanks | 0 | --- | --- | --- | --- |
| RGA LF | Land Fills | 0 | --- | --- | --- | --- |

0 = No sites in radius identified

--- = Not Searched

The subject property (APN 002-180-084) was listed in the EDR-provided government database report (Bartig, ET AL) on the SLIC database with a Facility Status identified as “Completed – Case Closed” as of December 16, 2005. The media impacted was reported as “sediments,” which were listed as having been impacted with lead and arsenic. According to information contained in the EDR-provided Radius Map Report, on May 22, 2010, the City of Chico (Discharger), proposed to remove approximately 100 cubic yards of contaminated sediment from the south branch of Dead Horse Slough. Sediment in the banks and bed of the slough were sampled by the City’s consultant in January 2006, October 2006, and February 2010. Elevated concentrations of antimony, arsenic and lead in the sediment were attributed to the former Humboldt Road Burn Dump site. However, the sediments were reported to be non-hazardous for antimony and arsenic. Lead was not detected in the DI-WET test for the single sample which was reported to have exceeded the STLC criterion. The sediment is now inaccessible, bound within tree roots. Therefore, the sediment in its current condition does not present a threat to human health or the environment. Furthermore, if the highway widening project does not proceed, there is no regulatory basis for the removal nor further investigation. However, removal will become feasible during widening of State Highway 32 and the related extension of the box culvert. The case was closed with the conditions that: the Discharger notify staff within 30 days prior to commencement of any field work; that dredging of sediment be scheduled during



the dry season and transported to a Class I or Class II landfill; the Discharger obtains an appropriate permit pursuant to Title 23, CWC Section 2200(e); and that the field work follow the May 22, 2010 Remedial Action Work Plan (RAW) as approved by staff in our June 25, 2010 conditional concurrence letter.

No sites with reported releases of hazardous materials or petroleum products are located within a one-quarter-mile radius of the subject property with the exception of the adjoining parcels to the north, east and south which were identified on the SLIC database as having had heavy metal impacted soil attributable to the HRBD site remediated under the regulatory agency supervision of the RWQCB and DTSC. Please refer to Section 8.0 *Regulatory Agency Records Review* for a detailed discussion of the assessment and remediation of the HRBD site.

In general, only potentially hazardous materials released from facilities located approximately up-gradient and within a few hundred feet of the site, or in a cross-gradient direction close to the site, are judged to have a reasonable potential of migrating to the site. This opinion is based on the assumption that materials generally do not migrate large distances laterally within the soil, but rather tend to migrate with groundwater in the general direction of groundwater flow.

Six orphan sites were identified in the EDR-provided government database report. No engineering control sites, sites with institutional controls, or sites with deed restrictions were listed for the subject property, adjacent sites or vicinity properties in the EDR-provided government database report. No Indian reservations or LUSTs on Indian land were reported on the subject property, adjacent sites or vicinity properties in the EDR-provided government database report.

The remaining properties identified by EDR within the specified search radius of the subject property, which appeared on local, state, or federally published lists of sites that have had releases of hazardous materials, were determined through SALEM's field observations to be of sufficient distance and/or situated hydraulically cross/down-gradient of the subject property, such that impacts to the subject property are not likely.

9.0 POTENTIAL VAPOR ENCROACHMENT CONDITION

Vapor intrusion is a way by which chemicals in soil and groundwater can migrate into indoor air. Chemical vapors moving up through soil and into a building are a potential source of indoor air contamination and may pose a risk to human health. In evaluating the potential for a vapor encroachment condition (VEC) on the subject property, SALEM attempted to determine if there was information indicating that chemicals of concern were located within the "critical distance", defined as the lineal distance between the nearest edge of a contaminated plume and the nearest target property boundary. Based on ASTM E 2600-15 *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*, the "critical distance" is equal to 100 feet, with the exception of dissolved petroleum hydrocarbons, which have a "critical distance" of 30 feet. If non-aqueous phase petroleum hydrocarbons are present, the 100-foot "critical distance" is utilized.

9.1 Vapor Encroachment Screening

SALEM has performed a Vapor Encroachment Screening (Tier 1) in general accordance with the scope and limitations of ASTM Standard Practice E2600-15 for the subject property. The purpose of this Vapor Encroachment Screening (Tier 1) is to identify the existing or potential Vapor Encroachment Conditions (VEC), as defined by ASTM E2600-15, affecting the subject property. As part of the screening, SALEM has completed the following questionnaire, as duplicated from Section X3 of ASTM E2600-15.



TABLE IV
Vapor Encroachment Questionnaire

| QUESTION | RESPONSE | COMMENTS |
|---|---------------|--------------------|
| 1. Property Type? | Undeveloped | |
| 2. Are there buildings/structures on the subject property? | No | |
| 3. Will buildings/structures be constructed on the subject property in the future? | Yes | |
| 4. If buildings exist or are proposed, do/will they have elevators? | No | |
| 5. Type of level below grade (existing or proposed)? | Slab-on-Grade | |
| 6. Is there ventilation below grade? | N/A | |
| 7. Sump pumps, floor drains, or trenches (existing or proposed)? | Yes | |
| 8. Radon or methane mitigation system installed? | N/A | |
| 9. Heating system type (existing or proposed)? | HVAC | |
| 10. Type of fuel energy (existing or proposed)? | Unknown | |
| 11. Have there ever been any environmental problems at the subject property? | Yes | Lead-Impacted Soil |
| 12. Does/will a gas station operate anywhere on the subject property? | Yes | Proposed |
| 13. Do any tenants use hazardous chemicals in relatively large quantities on the subject property? | No | |
| 14. Have any tenants ever complained about odors in the building or experience health-related problems that may have been associated with the building? | N/A | |
| 15. Are the operations (or proposed operations to be performed) on the subject property OSHA regulated? | Yes | |
| 16. Are there any existing or proposed underground storage tanks (USTs) or above-ground storage tanks (ASTs) located on the subject property? | Yes | Proposed |
| 17. Are there any sensitive receptors (children, elderly, people in poor health, etc.) that occupy or will occupy the subject property? | No | |

TABLE V
Additional VEC Criteria

| QUESTION | RESPONSE | COMMENTS |
|---|----------|--------------------|
| 1. Is the subject property known to have current or past contamination? | Yes | Lead-Impacted Soil |
| 2. Is contamination of the subject property suspected? | Yes | Lead-Impacted Soil |
| 3. Is an <u>adjacent</u> property known to have current or past contamination which may have impacted the subject property? | Yes | Lead-Impacted Soil |
| 4. Is a <u>nearby</u> property known to have current or past contamination which may have impacted the subject property? | Yes | HRBD Site |
| 5. Is regional groundwater contamination known to exist beneath the subject property? | No | |
| 6. Are you aware of other conditions which may result in vapor intrusion at the subject property? | No | |

Based on the findings of the Tier 1 VES, a VEC can be “ruled out” at the subject property. As such, no further assessment is recommended.

10.0 BUSINESS ENVIRONMENTAL RISKS

10.1 Asbestos-Containing Building Materials

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is commonly used as an acoustic insulator, thermal insulation, fire proofing and in other building materials. Friable asbestos-containing material (ACM), when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM can be crumbled, pulverized, or reduced to powder during machining, cutting, drilling, or other abrasive procedures. Friable ACM is more likely to release fibers when disturbed or damaged than non-friable ACM. Exposure to airborne friable asbestos may result in a



potential health risk because persons breathing the air may breathe in asbestos fibers. Continued exposure can increase the amount of fibers that remain in the lung. Fibers embedded in lung tissue over time may cause serious lung diseases including: asbestosis, lung cancer, or mesothelioma. The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be *presumed* to contain asbestos, for purposes of this regulation. All thermal system insulation (TSI), surfacing material, and asphalt/vinyl flooring that are present in a building constructed prior to 1981 and have not been appropriately tested are “presumed asbestos-containing material” (PACM).

At the time of SALEM’s site reconnaissance, no structures were observed on the subject property. Therefore, ACMs are not considered an on-site environmental concern at this time.

10.2 Lead-Based Paint

Lead is a highly toxic metal that affects virtually every system of the body. While adults can suffer from excessive lead exposures, the groups most at risk are fetuses, infants and children under 6. The Consumer Product Safety Commission banned the use of lead in paint in 1978. Most manufactures, however, had ceased using lead well before this time. Paint applied after 1978 is not considered suspect LBP. Congress passed the Residential Lead-Based Paint Hazard Reduction Act of 1992, also known as “Title X,” to protect families from exposure to lead from paint, dust, and soil. Section 1018 of this law directed the Housing and Urban Development (HUD) and the US EPA to require the disclosure of known information on lead-based paint (LBP) and LBP hazards before the sale or lease of most housing built before 1978. Sellers, landlords, and their agents are responsible for providing this information to the buyer or renter before sale or lease.

According to Section 1017 of Title X, “LBP hazard is any condition that causes exposure to lead from lead-contaminated dust; bare, lead-contaminated soil; or LBP that is deteriorated or intact LBP present on accessible surfaces, friction surfaces, or impact surfaces that would result in adverse human health effects.” Therefore, under Title X intact lead-based paint on most walls and ceilings is not considered a “hazard,” although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated. LBP is defined as any paint, varnish, stain, or other applied coating that has 1.0 mg/cm² (or 5,000 µg/g by weight) or more of lead.

At the time of SALEM’s site reconnaissance, no structures were observed on the subject property. Therefore, LBP is not considered an on-site environmental concern at this time.

10.3 Radon

Radon is a naturally occurring gaseous substance resulting from the radioactive decay of uranium to radium and then to radon. Uranium is a common element found in many geologic formations and substrates, particularly igneous and metamorphic rocks. Radon has a half-life of only 3.8 days and decays to its daughter elements (polonium 218, polonium 214, bismuth 214, and lead 214). It is these daughter elements that represent the health hazard commonly associated with radon. Radon gas can enter a building through cracks in the foundation and walls and become attached to dust particles and inhaled which could cause damage to human lung tissue. Radon is measured in picocuries per liter of air (pCi/L). The EPA has an established safe radon level of 4 pCi/L.

Based on the EPA Radon Zone Map of California, the subject property is located within EPA Zone 3, which has a predicted indoor radon screening below 2 pCi/L. The EDR-provided radon data cites Butte County has 100% of 1st floor spaces with <4 pCi/L. However, radon levels may vary from one area to another and the only way to accurately assess radon gas levels on the subject property is to conduct a radon gas survey, which is beyond the scope of this assessment.

10.4 Mold

Molds are microscopic organisms found virtually everywhere, indoors and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g. in the form of very high humidity,



condensation, or water from a leaking pipe, etc.) and organic material (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding). Mold growths often appear as discoloration, staining, or fuzzy growth on building materials or furnishings and are varied colors of white, gray, brown, black, yellow, and green. In large quantities, molds can cause allergic symptoms when inhaled or through the toxins the molds emit.

At the time of SALEM's site reconnaissance, no structures were observed on the subject property. Therefore, mold is not considered an on-site environmental concern at this time.

10.5 Surface Water and Wetlands

As defined by the USEPA and the Department of Army, Corps of Engineers, wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Jurisdictional wetlands are regulated under Section 404 of the Clean Water Act (1972, 1977, 1987, and also the 1985 and 1990 Farm Bills), and are important for protection of aquatic waterfowl and species, water purification, and flood control. According to current Corps of Engineers information, three basic criteria are currently used to define wetlands:

- Wetland hydrology - areas exhibiting surface or near-surface saturation or inundation at some point in time (greater than 12.5 percent of growing season defined on basis of frost-free days) during an average rainfall year.
- Hydrophilic vegetation - frequency of occurrence of wetland indicator plants (plant life growing in water, soil, or substrate that is periodically deficient in oxygen as a result of excessive water content); and
- Hydric soil - landscape patterns identified by saturation, flooding, or ponding long enough during the growing season (generally seven days) which develop characteristic color changes in the upper part of the soil as a result of anaerobic conditions.

Based on observations made during SALEM's site reconnaissance, evidence was apparent to suggest that the subject property may contain a wetland, as a small dry creek channel (south branch of Dead Horse Slough) was observed to transect the subject property from the southeast to the northwest. The Dead Horse Slough channel is considered "waters of the United States." Jurisdictional wetlands are also present in the subject property vicinity. However, according to information available on the United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) database website (<http://www.fws.gov/wetlands/Data/Mapper.html>), there are no designated wetlands areas on the subject property. No wetlands or surface waters are present on the subject property with the exception of Dead Horse Slough. The lake located approximately 565 feet north of the subject property across State Highway 32 are designated as "Freshwater Pond" and "Freshwater Forested/Shrub Wetland." Activities that affect these wetlands may be subject to the following requirements:

- Section 404 of the Clean water Act (CWA), administered by the U.S. Army Corps of Engineers.
- The RWQCB Basin Plan.
- Section 1601 of the California Fish and Game Code, administered by the CDF&G.
- U.S. Fish and Wildlife Service National; Wetlands Inventory.
- City of Chico Grading Ordinance (Municipal Code Section 16.R22).
- City of Chico General Plan Policy OS-G-9 and U.S. Army Corps of Engineers regulations regarding "no-net-loss" of wetlands.



11.0 DISCUSSION OF FINDINGS

Historical Uses

The subject property comprises a 2.10-acre portion of an approximately 10.83-acre irregular-shaped parcel (Butte County APN 002-180-084) located on the southeast corner of State Highway 32 (Deer Creek Highway) and Bruce Road in Chico, California. Parcel 002-180-084 is transected by Bruce Road, with the 2.10-acre subject property lying on the east side of Bruce Road and the remainder of the parcel (approximately 8.73 acres) lying on the west side of Bruce Road. A small creek (south branch of Dead Horse Slough) transects the subject property from the southeast to the northwest. SALEM's review of historical aerial photographs, historical city directories and CBD records indicate that the subject property has been undeveloped land since at least 1941. No structures were historically located on the subject property.

Current Uses

At the time of SALEM's October 6, 2016 site reconnaissance, the subject property was vacant land covered with native vegetation. A small creek (south branch of Dead Horse Slough) transects the subject property from the southeast to the northwest. During the visual observations of the subject property, no hazardous materials were observed to be stored or handled on the subject property. Exposed surface soils did not exhibit obvious signs of discoloration. No other obvious evidence (vent pipes, fill pipes, dispensers, etc.) of USTs was noted within the area observed. No standing water or major depressions were observed on the subject property. No monitoring wells, storage tanks, transformers, septic tanks, or other types of wells were observed on the subject property.

According to RWQCB records, waste material and contaminated sediment containing burn ash originating from the HRBD, located approximately 840 feet southeast of the subject property, is deposited on-site from the seasonal flow of the Dead Horse Slough which transects the subject property from southeast to northwest. The primary constituents of concern identified in the sediment of Dead Horse Slough were lead, arsenic, antimony and dioxins. Remediation and confirmation soil sampling activities of the HRBD were primarily conducted in 2004 and 2005 under the regulatory agency supervision of the RWQCB and the DTSC. Parcels included in the Final Remedial Action Plan, Humboldt Road Private Properties Operational Unit included APN 011-030-016; APN 011-030-136; APN 011-030-138; APN 011-030-139; APN 002-180-084 (subject property); and APN 002-180-086. The remedial action goals for lead, arsenic, antimony and dioxin at the HRBD were 224 mg/kg, 6.12 mg/kg, 31 mg/kg and 0.005 mg/kg, respectively. Approximately 139,000 loose cubic yards of burn ash and waste debris on APN 011-030-016; APN 011-030-136; APN 011-030-138; APN 002-180-084 (subject property); and APN 002-180-086 were removed and placed into two consolidation cells located approximately 980 feet southeast of the subject property in 2005. The consolidation cells are located on the north side of Humboldt Road, east of Bruce Road. The average residual lead concentration in the subject property area was reported to have been 55 mg/kg. The final lead concentration in soil from one out of 270 confirmation soil sample locations exceeded the remedial action goal of 224 mg/kg. A lead concentration of 264 mg/kg was detected in a sediment sample collected near Dead Horse Slough, approximately 100 feet south of the State Highway 32 box culvert (Sample BRCS-03) which is located on the subject property. The area of Dead Horse Slough where Sample BRCS-03 was collected was left undisturbed to serve as a buffer between the last sediment control check dam and the box culvert. Additionally, elevated concentrations of lead remain within the root zones of the larger Oak and Cottonwood trees growing in waste debris along Dead Horse Slough. In conjunction with the Stream Alteration Agreement issued by the DFG, the property owners were required to leave the trees. Lead concentrations in the seven confirmation soil samples collected on the southern portion of the subject property indicated concentrations of lead ranged from 9.2 mg/kg to 92.9 mg/kg. No confirmation soil samples appeared to have been collected on the northern portion of the subject property. Confirmation soil sample analytical results indicated that concentrations of arsenic, antimony and dioxin did not exceed established remedial action goals. Based upon the results of the confirmation soil samples, the RWQCB issued a Certificate of Completion regarding the Site Investigation and Remedial Action of the HRBD for APN 002-180-084 (subject property) and APN 002-180-086. On January 31, 2006, five sediment samples



were collected within the State Highway 32 right-of-way upstream of the box culvert (on the subject property) and within the right-of-way downstream of the box culvert on the adjoining property to the north. The sediment samples were analyzed for arsenic, antimony and lead. The lead concentration in Sample DHS-1 (517 mg/kg) exceeded the established remediation goal and was therefore, analyzed for soluble lead using the STLC method. An STLC value of 5 mg/L indicates that the material is a hazardous waste under California regulations for the purpose of remediation, treatment and disposal. The concentration of soluble lead (9.9 mg/L) in Sample DHS-1 exceeded the STLC for lead. An additional analysis of the Sample DHS-1 was conducted using deionized water in the waste extraction test (DI-WET). Whereas the STLC test uses an acid extractant, the DI-WET analysis is more representative of the potential for the sediments to leach lead under natural conditions in the slough. Soluble lead was not detected in the DI-WET test. Analytical results indicated that the sediment is considered to be a California-hazardous waste but not a Resource Conservation Recovery Act (RCRA)-hazardous waste. The assessment, remediation and subsequent regulatory agency closure regarding heavy metal-impacted soils at the subject property (APN 002-180-084) present a HREC to the subject property.

However, SALEM recommends conducting a LSA in the northern portion of the subject property for the purpose of assessing on-site shallow soil for potential impacts from the aforementioned constituents of concern. The LSA will also be utilized to determine if excavated soils generated during construction activities are likely to be classified as a regulated waste (i.e. California- or RCRA-hazardous waste). Additionally, SALEM recommends preparation of a SMP which should be distributed to construction personnel. The SMP will establish protocols for handling, sampling, storage, and disposal of any suspected lead-impacted soils generated during construction activities.

Adjacent Properties

Based on SALEM's field observations, review of the EDR Radius Map Report and consultation with local regulatory agencies, there does not appear to be RECs in connection with the subject property from adjacent property uses.

11.1 Evaluation of Data Gaps/Data Failure

In accordance with ASTM E1527-13 guidance, data gaps represent a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice. Data failure represents the failure to achieve the historical research objects of this practice even after reviewing the standard historical sources that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap. The following is a summary of data gaps encountered in the process of preparing this report including an observation as the presumed significance of that data gap to the conclusions of this assessment.

- Failure to identify land use back to first developed use or 1940, whichever is earlier.
- Some of the intervals between documented sources exceeded five years.
- Absence of a completed Phase I ESA Owner Questionnaire.

However, taken in consideration with the available information obtained in the course of preparing this report in conjunction with professional experience, there is no evidence to suggest that these data gaps might alter the conclusions of this assessment.

12.0 SUMMARY AND CONCLUSIONS

We have performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E1527-13 of the Vacant Land (Butte County APN 002-180-084) located on the southeast corner of State Highway 32 and Bruce Road in Chico, California, the *property*. Any exceptions to, or deletions from, this practice are described in Section 13 of this *report*. During the course of this assessment,



SALEM identified the no evidence of a REC in connection with the subject property as defined by ASTM E1527-13. However, the following HREC was identified in connection with the subject property as defined by E1527-13:

- The subject property was listed in the EDR-provided Radius Map Report on the SLIC Database due to heavy metal-impacted soil encountered during the proposed widening of State Highway 32 along the south branch of Dead Horse Slough. According to RWQCB records, waste material and contaminated sediment containing burn ash originating from the HRBD, located approximately 840 feet southeast of the subject property, is deposited on-site from the seasonal flow of the Dead Horse Slough which transects the subject property from southeast to northwest. The primary constituents of concern identified in the sediment of Dead Horse Slough were lead, arsenic, antimony and dioxins. Remediation and confirmation soil sampling activities of the HRBD were primarily conducted in 2004 and 2005 under the regulatory agency supervision of the RWQCB and the DTSC. Parcels included in the Final Remedial Action Plan, Humboldt Road Private Properties Operational Unit included APN 011-030-016; APN 011-030-136; APN 011-030-138; APN 011-030-139; APN 002-180-084 (subject property); and APN 002-180-086. The remedial action goals for lead, arsenic, antimony and dioxin at the HRBD were 224 mg/kg, 6.12 mg/kg, 31 mg/kg and 0.005 mg/kg, respectively. Approximately 139,000 loose cubic yards of burn ash and waste debris on APN 011-030-016; APN 011-030-136; APN 011-030-138; APN 002-180-084 (subject property); and APN 002-180-086 were removed and placed into two consolidation cells located approximately 980 feet southeast of the subject property in 2005. The consolidation cells are located on the north side of Humboldt Road, east of Bruce Road. The average residual lead concentration in the subject property area was reported to have been 55 mg/kg. The final lead concentration in soil from one out of 270 confirmation soil sample locations exceeded the remedial action goal of 224 mg/kg. A lead concentration of 264 mg/kg was detected in a sediment sample collected near Dead Horse Slough, approximately 100 feet south of the State Highway 32 box culvert (Sample BRCS-03) which is located on the subject property. The area of Dead Horse Slough where Sample BRCS-03 was collected was left undisturbed to serve as a buffer between the last sediment control check dam and the box culvert. Additionally, elevated concentrations of lead remain within the root zones of the larger Oak and Cottonwood trees growing in waste debris along Dead Horse Slough. In conjunction with the Stream Alteration Agreement issued by the DFG, the property owners were required to leave the trees. Lead concentrations in the seven confirmation soil samples collected on the southern portion of the subject property indicated concentrations of lead ranged from 9.2 mg/kg to 92.9 mg/kg. No confirmation soil samples appeared to have been collected on the northern portion of the subject property. Confirmation soil sample analytical results indicated that concentrations of arsenic, antimony and dioxin did not exceed established remedial action goals. Based upon the results of the confirmation soil samples, the RWQCB issued a Certificate of Completion regarding the Site Investigation and Remedial Action of the HRBD for APN 002-180-084 (subject property) and APN 002-180-086. On January 31, 2006, five sediment samples were collected within the State Highway 32 right-of-way upstream of the box culvert (on the subject property) and within the right-of-way downstream of the box culvert on the adjoining property to the north. The sediment samples were analyzed for arsenic, antimony and lead. The lead concentration in Sample DHS-1 (517 mg/kg) exceeded the established remediation goal and was therefore, analyzed for soluble lead using the STLC method. An STLC value of 5 mg/L indicates that the material is a hazardous waste under California regulations for the purpose of remediation, treatment and disposal. The concentration of soluble lead (9.9 mg/L) in Sample DHS-1 exceeded the STLC for lead. An additional analysis of the Sample DHS-1 was conducted using deionized water in the waste extraction test (DI-WET). Whereas the STLC test uses an acid extractant, the DI-WET analysis is more representative of the potential for the sediments to leach lead under natural conditions in the slough. Soluble lead was not detected in the DI-WET test. Analytical results indicated that the sediment is considered to be a California-hazardous waste but not a Resource Conservation Recovery Act (RCRA)-hazardous waste.



SALEM recommends conducting a LSA in the northern portion of the subject property for the purpose of assessing on-site shallow soil for potential impacts from the aforementioned constituents of concern. The LSA will also be utilized to determine if excavated soils generated during construction activities are likely to be classified as a regulated waste (i.e. California- or RCRA-hazardous waste). Additionally, SALEM recommends preparation of a SMP which should be distributed to construction personnel. The SMP will establish protocols for handling, sampling, storage, and disposal of any suspected lead-impacted soils generated during construction activities.

13.0 LIMITATIONS

This Phase I ESA Report has been prepared for the exclusive use of Mr. Raj Takhar. Unauthorized use of or reliance on the information contained in this report, unless given express written consent by SALEM and Mr. Raj Takhar is strictly prohibited. The following limitations and exceptions apply:

- The scope of work completed was designed solely to meet the needs of SALEM's client. SALEM shall not be liable for any unintended usage of this report by another party. In addition, based on the ASTM guidelines, the ESA is only valid if completed within 180 days of an acquisition or the transaction necessitating the ESA.
- No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. This ESA was designed to reduce, but not eliminate the potential for RECs at the subject property, within reasonable limits of time and cost. The ESA is not intended to be exhaustive or all-inclusive and does not represent a guarantee of the identification of all possible environmental risk.
- An ESA is intended to be a non-intrusive investigation and generally does not include sampling or testing of air, soil, water or building materials. No destructive testing was completed and concealed areas, such as behind walls or within machinery, were not accessed. Testing, if any, is designed solely to meet the needs of the ESA, not to meet any local, state or federal regulations and should not be utilized as such.
- Information in this report is based on personal interviews, government records, published resources, and various historical documents. Accuracy and completeness of information varies among information sources and is often inaccurate or incomplete. The information utilized in this ESA is from sources deemed to be reliable; however, no representation or warranty is made as to the accuracy thereof. SALEM will have no ongoing obligation to obtain and include information that was not reasonably ascertainable, practically reviewable or provided to SALEM in a reasonable timeframe to formulate an opinion and complete the assessment by the agreed upon due date.
- Unless specifically identified in the scope of work, the ESA excludes consideration of non-ASTM scope issues including, but not limited to, lead in drinking water, asbestos, lead-based paint, industrial hygiene, health and safety, endangered species, wetlands, indoor air quality, vapor intrusion, electromagnetic fields, biological agents or mold.
- The ESA includes some information that may be relevant to regulatory compliance, but is not intended and shall not be construed as a compliance audit and cannot be considered a verification of regulatory compliance. While the general environmental setting of the subject property is described, this assessment is not intended to be a formal flood plain or wetland determination, and no warranty is made thereof. Depending on its past, present or future intended use, the property under review may or may not be subject to regulation and permitting under environmental and health and safety laws, such as, but not limited to, the Clean Air Act, the Clean Water Act, the Solid



Waste Disposal Act, the Occupational Safety and Health Act, and other federal, state and local regulations. SALEM assumes no responsibility or liability respecting regulatory permitting or compliance issues.

- Client is advised that if the ESA is obtained with the intent of qualifying the purchaser as an innocent landowner, contiguous property owner, or bona fide prospective purchaser under CERCLA, there will be continuing obligations of due care and responsiveness and additional legal requirements that likely apply to such status. SALEM accepts and undertakes no responsibility as to such requirements and advises that counsel be separately consulted with respect to such requirements.
- The findings and conclusions presented in this Phase I ESA Report are based on field review and observations and on data obtained from the sources listed in the report. The findings of this report are valid as of the present. The passage of time, natural processes or human intervention on the subject property or adjacent properties and changes in the regulations can cause changed conditions which can invalidate the findings and conclusions presented in this report.

14.0 QUALIFICATIONS

This Phase I ESA was conducted under the supervision or responsible charge of SALEM's undersigned environmental professional with oversight from the undersigned registered professional. The work was conducted in accordance with ASTM E1527-13, generally accepted industry standards for environmental due diligence in place at the time of the preparation of this report, and SALEM's quality-control policies.

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



15.0 REFERENCES

The following list summarizes the references utilized in preparing this report:

- Aerial photographs provided by Environmental Data Resources, Inc.
- Butte County Assessor's Office records.
- Butte County Department of Environmental Health records.
- Cal-EPA Voluntary Cleanup Program records.
- California EPA, Department of Toxic Substances Control records.
- California Department of Conservation – Division of Oil, Gas, and Geothermal Resources records.
- California Office of Historic Preservation records.
- California Regional Water Quality Control Board records.
- California Statewide Radon Survey Screening results.
- City Directory Abstract Report compiled by EDR.
- City of Chico Building Department records.
- City of Chico Fire Department records.
- City of Chico Public Works Department records.
- FEMA Map Service Center records.
- Federal and State regulatory agency lists compiled by EDR.
- National Register of Historical Places Database records.
- Pipeline and Hazardous Materials Safety Administration, National Pipeline Mapping System.
- Sanborn Fire Insurance Maps for Chico, California (EDR).
- U.S. Fish and Wildlife Service National Wetlands Mapper.
- U.S. Geological Survey, 7.5 minute Chico, California topographic quadrangle map, dated 2012.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (209) 931-2226.

Respectfully submitted,

SALEM Engineering Group, Inc.



Shannon Lodge, PG
Senior Project Manager



Clarence Jiang, PE, GE
Project Engineer
RCE No. 50233/ RGE No. 2477





Photo 1: View of subject property from the northeast corner facing south.



Photo 2: View of subject property from the northeast corner facing west.

PHOTOGRAPHS

VACANT LAND
SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA

PROJECT NO.

4-416-1086

DATE:

October 2016

PAGE:

Page 1 of 8

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Photo 3: View of subject property from the southeast corner facing north.



Photo 4: View of subject property from the northwest corner facing east.

PHOTOGRAPHS

VACANT LAND
SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA

PROJECT NO.

4-416-1086

DATE:

October 2016

PAGE:

Page 2 of 8



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Photo 5: View of subject property from the northwest corner facing south.



Photo 6: View of subject property from the north.

PHOTOGRAPHS

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SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA

PROJECT NO.
4-416-1086

DATE:
October 2016

PAGE:
Page 3 of 8

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Photo 7: View of subject property from the southeast corner.



Photo 8: View of subject property from the west.

PHOTOGRAPHS

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SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA

PROJECT NO.

4-416-1086

DATE:

October 2016

PAGE:

Page 4 of 8



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Photo 9: View of the adjoining property to the north.



Photo 10: View of the adjoining property to the east.

PHOTOGRAPHS

VACANT LAND
SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA

PROJECT NO.

4-416-1086

DATE:

October 2016

PAGE:

Page 5 of 8

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Photo 11: View of the adjoining property to the southeast.



Photo 12: View of adjoining property to the west.

PHOTOGRAPHS

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SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA

PROJECT NO.
4-416-1086

DATE:
October 2016

PAGE:
Page 6 of 8

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Photo 13: View of the adjoining property to the northeast.



Photo 14: View of the adjoining property to the northwest.

PHOTOGRAPHS

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SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA

PROJECT NO.

4-416-1086

DATE:

October 2016

PAGE:

Page 7 of 8

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Photo 15: View of subject property from the northeast corner.



Photo 16: View of creek on subject property.

PHOTOGRAPHS

VACANT LAND
SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA

PROJECT NO.

4-416-1086

DATE:

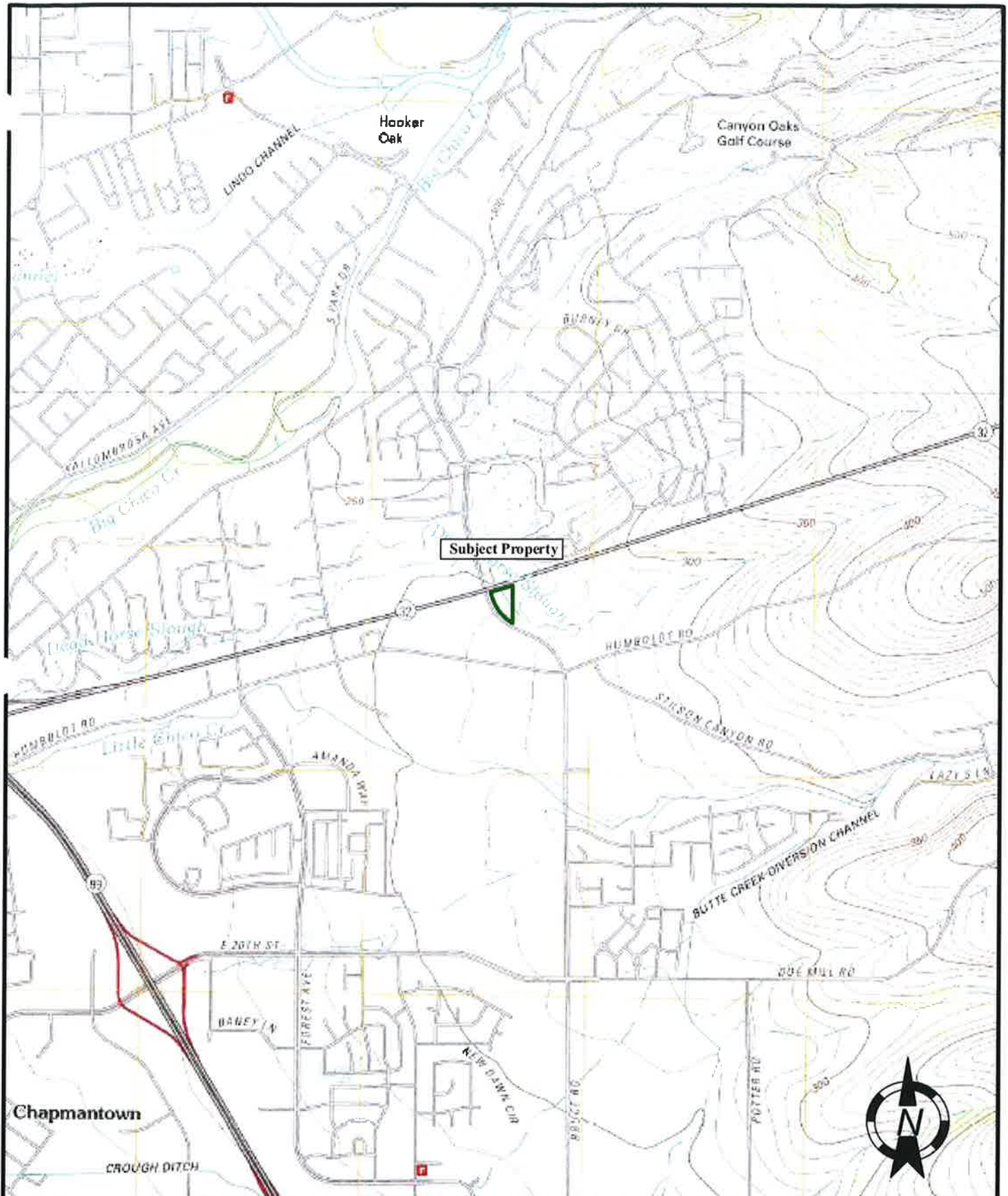
October 2016

PAGE:

Page 8 of 8



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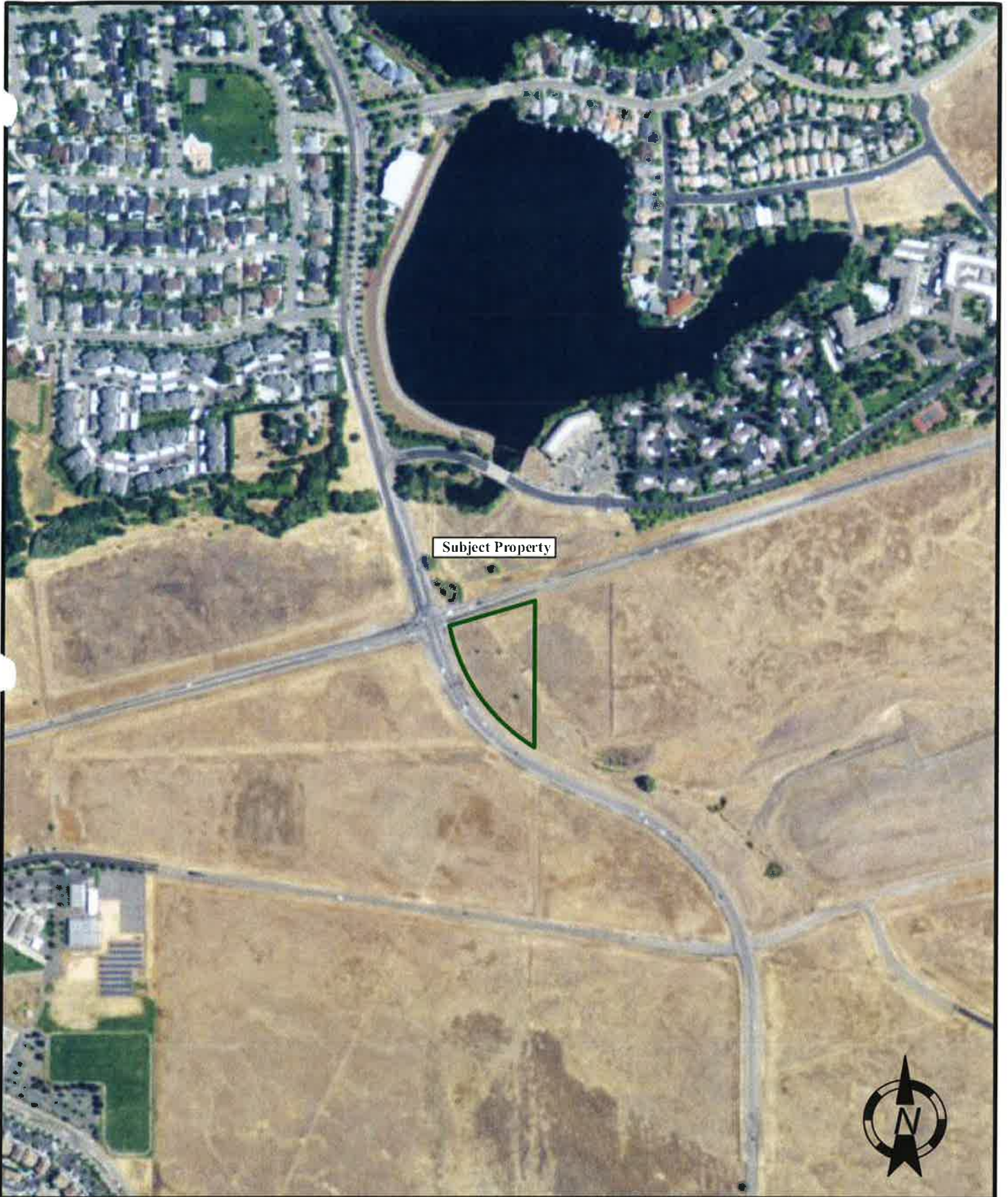


TOPOGRAPHIC MAP (2012)

VACANT LAND
SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA

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| NTS | Oct. 2016 |
| DRAWN BY: | APPROVED BY: |
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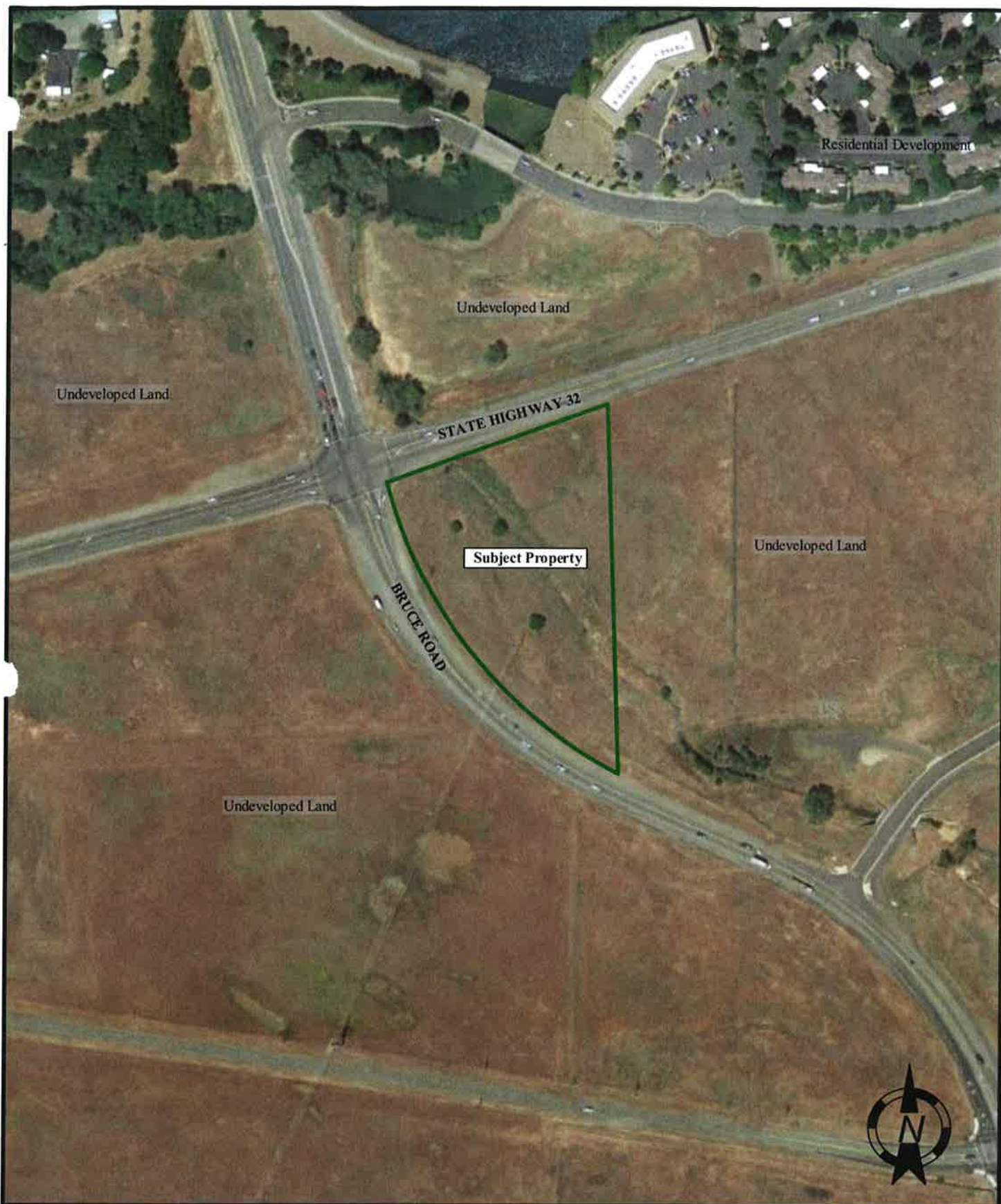
AERIAL PHOTOGRAPH (2012)

VACANT LAND
SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA

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| SCALE: | DATE: |
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| DRAWN BY: | APPROVED BY: |
| KV | SL |
| PROJECT NO. | FIGURE NO. |
| 4-416-1086 | 2 |



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SITE MAP

**VACANT LAND
SEC STATE HIGHWAY 32 & BRUCE ROAD
BUTTE COUNTY APN 002-180-084
CHICO, CALIFORNIA**

SCALE:

NTS

DATE:

Oct. 2016

DRAWN BY:

KV

APPROVED BY:

SL

PROJECT NO.

4-416-1086

FIGURE NO.

3



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