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# **Appendix G**

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**PHASE I ENVIRONMENTAL SITE ASSESSMENT  
THE PRESERVE  
SACRAMENTO COUNTY APNS 072-0300-001, -002, -005,  
-008, -010 and 073-0010-011  
RANCHO CORDOVA, CALIFORNIA**

Prepared For

Winn Communities  
1130 Iron Point Road, Suite 150  
Folsom, California 95630

Prepared By

Youngdahl Consulting Group, Inc.  
1234 Glenhaven Court  
El Dorado Hills, California 95762

Project No. E17440.002  
June 2019



**YOUNGDAHL  
CONSULTING GROUP, INC.**

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*Building Innovative Solutions*



Winn Communities  
1130 Iron Point Road, Suite 150  
Folsom, CA 95630

Project No. E17440.002  
5 June 2019

Attn: Mr. Daron Anderson

Subject: **THE PRESERVE**  
Grant Line Road & Raymer Way, Rancho Cordova, California  
*Phase I Environmental Site Assessment*

As requested, Youngdahl Consulting Group, Inc. (Youngdahl) has performed a Phase I Environmental Site Assessment (ESA) for the Preserve project, located west of Grant Line Road and north of Raymer Way in Rancho Cordova, California (Subject Property). Youngdahl identified recognized environmental conditions in connection with the subject property.

The trichloroethylene contamination plume from the Aerojet General Corporation Superfund site located north of the subject property encroaches onto some of the northern parcels of the subject property at a groundwater concentration above maximum contaminant levels creating a potential soil vapor intrusion scenario, which is considered a REC. Two steel pipes were observed protruding out of the ground within parcel 073-0010-011 (3450 Grant Line Road) and have a potential to be connected to an underground storage tank (UST), which is considered a REC. The residence and outbuildings within APN 072-0300-008 (12535 Douglas Road) were built sometime between 1975 and 1980, and the structures and soils adjacent to these structures have potential for containing lead-based paint; this has been identified to be a REC. Also, within APN 072-0300-008, an unknown underground system is present north-adjacent to an old shed which is considered a REC. All residences and major outbuildings of wood construction on the subject property besides within APN 072-0300-002 (12565 Douglas Road, Divine Property) have the potential for termiticides present in adjacent soils and are considered RECs. Furthermore, no historic RECs (HRECs) or controlled RECs (CRECs) were identified in connection with the property.

This Phase I Environmental Site Assessment has been completed in accordance to the ASTM Practice E 1527-13. Youngdahl Consulting Group, Inc. declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10. 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.

Very truly yours,  
Youngdahl Consulting Group, Inc.

Reviewed by:

A handwritten signature in blue ink, appearing to read 'Dennis S. Eck'.

Dennis S. Eck  
Staff Geologist

A handwritten signature in blue ink, appearing to read 'David C. Sederquist'.

David C. Sederquist, C.E.G, C.H.G.  
Senior Engineering Geologist/Hydrogeologist



Distribution: 1 PDF: Client

## Table of Contents

EXECUTIVE SUMMARY .....	1
1.0 INTRODUCTION.....	3
1.1 Purpose .....	3
1.2 Detailed Scope of Services .....	4
1.3 Significant Assumptions, Limitations, and Exceptions .....	6
1.4 Special Terms and Conditions and/or Additional Services .....	6
1.5 User Responsibilities .....	6
1.6 Reliance.....	7
2.0 SITE INFORMATION .....	7
2.1 Site Description.....	7
2.2 Legal Description .....	7
2.3 Environmental Liens or Activity and Use Limitations .....	7
2.4 Specialized Knowledge and Commonly Known or Reasonably Ascertainable Information .....	8
2.5 Valuation Reduction for Environmental Issues .....	8
2.6 Reasons for Performing the Phase I ESA .....	8
3.0 INTERVIEWS.....	8
3.1 Interviews with Past and Present Owners, Key Site Manager, and/or Occupant .....	8
4.0 PHYSICAL AND GEOLOGICAL DESCRIPTION.....	9
4.1 Physical Setting Source(s).....	9
4.2 Regional Geology and Soil Description .....	9
4.3 Regional Radon Values.....	10
4.4 Asbestos Containing Building Materials.....	10
4.6 Lead-based Paint .....	11
4.7 Termiticides.....	11
4.8 Pesticides .....	11
5.0 HISTORICAL SOURCES REVIEW .....	12
5.1 Aerial Photographic Review .....	12
5.2 Review of Historical and Current USGS Topographic Maps .....	15
5.3 Historical City Directory Abstract Review.....	16
5.4 Certified Sanborn Map Report.....	17
5.5 Previously Completed Environmental Assessments.....	17
6.0 REGULATORY RECORDS REVIEW.....	18
6.1 Commercial Database Search Review .....	18
6.2 Review of State and/or Local Government Records.....	20
6.3 Vapor Encroachment Screening .....	21
7.0 SITE RECONNAISSANCE.....	21
7.1 Purpose .....	21
7.2 Subject Property .....	21
7.3 Adjacent Properties.....	25
8.0 CONCLUSIONS, OPINION, AND RECOMMENDATIONS.....	25
8.1 Summary of Historical Subject Property Use Information .....	26
8.2 Recognized Environmental Conditions (RECs) .....	26
8.3 Historic Recognized Environmental Conditions (HRECs).....	27
8.4 Controlled Recognized Environmental Conditions (CRECs) .....	27
8.5 Recommendations .....	27
8.6 Data Gaps.....	28
9.0 SELECTED REFERENCES.....	28
10.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS .....	29

## Table of Contents (continued)

### FIGURES:

Figure 1	Vicinity Map (Topographic Map)
Figure 2	Site Plan (Parcel Map)
Figures 3 - 28	Site Photographs

### APPENDICES:

Appendix A	Phase I ESA Questionnaires
Appendix B	EDR Aerial Photo Decade Package
	EDR Historical Topographic Map Report
	EDR City Directory Image Report
	Certified Sanborn® Map Report (No coverage)
Appendix C	EDR Radius Map Report with GeoCheck®
Appendix D	EDR Vapor Encroachment Screen

*Privileged & Confidential*

**THE PRESERVE  
SACRAMENTO COUNTY APNS  
072-0300-001, -002, -005, -008, -010 and 073-0010-011  
RANCHO CORDOVA, CALIFORNIA 95742**

**EXECUTIVE SUMMARY**

The property description referred to herein is based on a Sacramento Assessor's Parcel Map and on a site reconnaissance performed by representatives of Youngdahl Consulting Group, Inc. (Youngdahl). These were also the basis for the "Vicinity Map" - Figure 1. The subject site is irregular in shape, consists of 283.5 acres of land, and is assigned the following Sacramento County Assessor's Parcel Numbers (APNs):

- 072-0300-001 (12555 Grant Line Road)
- 072-0300-002 (12565 Douglas Road, Divine Property)
- 072-0300-005 (12525 Douglas Road, Whitlow Property)
- 072-0300-008 (12535 Douglas Road)
- 072-0300-010 (No Address)
- 073-0010-011 (3450 Grant Line Road)

The subject property is primarily used for grazing land and residential homes with associated outbuildings within parcels 072-0300-002, -005, -008 and 073-0010-011. An orchard was observed in the northeastern corner of the subject site. The site is also located near known contamination areas associated with the Aerojet General Corporation National Priorities List Superfund Site (Aerojet General Corp.), and a monitoring well associated with the Superfund site was observed within subject property boundaries.

Adjacent Properties

North: Vacant land currently being mined for aggregate.

East: Grant Line Road and Teichert Aggregate Plant.

South: Residential Subdivision.

West: Vacant land.

Site Assessor

A site reconnaissance visit was conducted on 9 May 2019 by Mr. Dennis S. Eck, Youngdahl Consulting Group, Inc., (916) 933-0633, [dse@youngdahl.net](mailto:dse@youngdahl.net).

EP Certification

An environmental professional (EP) is defined as a person meeting the education, training, and experience requirements set forth in 40 CFR § 312.10(b). We declare that, to the best of our professional knowledge and opinion, we meet the definition of EP as defined in 40 CFR § 312.10 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.

AAI Certification

This Phase I Environmental Site Assessment (ESA) was conducted according to the American Society for Testing and Materials (ASTM) Designation E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Phase I Standards). The ASTM E1527-13 standard is consistent with the requirement of the All Appropriate Inquiry (AAI) rule in Title 40 of the Code of Federal Regulations (40 C.F.R. § 312.10).

### Data Gaps

According to § 3.3.20 of ASTM Standard E 1527-13 a data gap is a lack of or inability to obtain information required by the ASTM Standard despite good faith efforts to gather same. Data gaps may result from incompleteness in any of the activities required by the ASTM Standard. It is our opinion that no significant data gaps were identified.

### Summary and Opinion

Recognized environmental conditions (RECs) are defined in the ASTM Phase I Standards to mean "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

A contaminant plume of trichloroethylene (TCE) was discovered to encroach within some of the northern parcels. The 5 parts per billion (ppb) contour of TCE (the maximum contaminant level) extends to onsite and adjacent monitoring wells, but does not extend to any domestic wells identified on the subject property. **Although existing domestic wells aren't necessarily impacted, the presence of TCE within subject property boundaries has potential to create a soil vapor intrusion scenario and is considered a REC.**

Two steel pipes were observed protruding out of the ground within parcel 073-0010-011 (3450 Grant Line Road). An inactive well was also observed, and we understand that is currently permitted as inactive. **It is our opinion that the two protruding pipes have potential to be connected to an underground storage tank (UST), which is considered a REC.** The orchard that occupies a portion of this parcel and parcel 073-0010-010 was planted sometime between 1980 and 1984, as indicated by the historical aerial photography and topographic maps, which means that lead arsenate and organochlorine pesticides were not likely used.

The residence and outbuildings within APN 072-0300-008 (12535 Douglas Road) were built sometime between 1975 and 1980, and **the structures and soils adjacent to these structures have potential for containing lead-based paint; this has been identified to be a REC. Within APN 072-0300-008 is an unknown underground system found adjacent to the shed located north of the residence and a 55-gallon drum northeast from the residence with an unknown liquid inside; these are considered RECs if these vessels were used for fuel storage.**

**All residences and major outbuildings of wood construction on the subject property besides within APN 072-0300-002 (12565 Douglas Road, Divine Property) have the potential for termiticides present in adjacent soils and are considered RECs.**

Historic recognized environmental conditions (HRECs) is a term used to state that the property only includes a resolved or closed out REC that has been completely resolved ("clean closure") with no restrictions. **No HRECs were identified.** The term controlled REC (CREC) describes closed RECs that are managed under an activity and use limitation (AUL). **No CRECs were identified.**

### Recommendations

It is the opinion of the Youngdahl Consulting Group Inc. that the following recommended actions be conducted for the identified RECs:

APN & Address	Identified REC	Recommendation
072-0300-001 (12555 Grant Line Road)	TCE groundwater plume identified by on-site monitoring well.	We recommend that a soil vapor investigation consisting of soil vapor sampling be conducted on the subject property.
072-0300-002 (12565 Douglas Road, Divine Property)	No RECs identified.	No recommendations.
072-0300-005 (12525 Douglas Road, Whitlow Property)	Potential termiticides within soils adjacent to the residence.	We recommend soil sampling near the footprint of the home at a depth of approximately 1 foot to be analyzed for termite pesticides.
072-0300-008 (12535 Douglas Road)	Lead based paint and termiticides in soils adjacent to all buildings. ACBM within all buildings. 55-gallon drum with unknown liquid. Potential underground tank/sump adjacent to shed north of residence. Potential vapor intrusion scenario from the TCE groundwater plume.	We recommend investigation of the potential underground system. Soils adjacent to the buildings should be sampled for total lead in surface soils and termite pesticides at a depth of approximately 1 foot. ACBM should be investigated at the main residence and shed northwest of the residence by a licensed asbestos contractor. Soil vapor sampling as part of a soil vapor intrusion investigation should be conducted.
072-0300-010 (No Address)	No RECs identified.	No recommendations.
073-0010-011 (3450 Grant Line Road)	Two pipes observed protruding from the ground south of the orchard and west from the former residence. Potential vapor intrusion scenario from the TCE groundwater plume.	The pipes are potentially connected to a UST and should be investigated. Soil vapor sampling as part of a soil vapor intrusion investigation should be conducted.

Additionally, all inactive wells that are not planned for future use should be destroyed per Sacramento County requirements. Domestic wells were observed to be within parcels 073-0010-011 (permitted inactive), 072-0300-002, 072-0300-005, and 072-0300-008.

## 1.0 INTRODUCTION

### 1.1 Purpose

This Phase I ESA was conducted according to the American Society for Testing and Materials (ASTM) Designation E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Phase I Standards). The ASTM E1527-13 standards are consistent with the requirement of the All Appropriate Inquiry (AAI) rule in Title 40 of the Code of Federal Regulations (40 C.F.R. § 312.10).



The significant changes included in ASTM 1527-13 (approved December 2013) are as follows:

- a) The definition of a recognized environmental condition (REC) has been narrowed to exclude a release inside a building from a source inside a building;
- b) The term historic recognized environmental condition (HREC) has been clarified to state that it only includes a resolved or closed out REC that has been completely resolved (“clean closure”) with no restrictions;
- c) The term controlled REC (CREC) for closed RECs that are managed under an activity and use limitation (AUL) has been added;
- d) If the target property or any of the adjoining properties is identified on one or more of the standard environmental record sources, pertinent regulatory files and/or records associated with the listing should be reviewed. Language has been added to Section 8.2.2 Regulatory File Reviews with the intent of having the environmental professional explain in greater detail their rationale for when a regulatory file review is not warranted rather than simply stating that it is not a concern. “...the environmental professional must explain within the report the justification for not conducting a regulatory file review.”
- e) Language has been added to include soil vapor as one of the pathways of contamination to the subject property, along with ground water and soil. The soil vapor contaminant pathway needs to be considered in evaluation of RECs or other environmental concerns.

The ASTM 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 limitations on CERCLA liability. The purpose of this Phase I ESA was to identify recognized environmental conditions which may affect the property. Recognized environmental conditions are defined in the ASTM Phase I Standards to mean “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment”. The term “recognized environmental condition” is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. De minimis conditions are not recognized environmental conditions.

Controlled substances (i.e. illegal drugs) are not included within the scope of this standard. Petroleum products are included within the scope of this practice because they are of concern with respect to many parcels of commercial real estate and current custom and usage is to include an inquiry into the presence of petroleum products when doing an ESA of commercial real estate. This practice does not address requirements of any state or local laws or of any federal laws other than the appropriate inquiry provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)’s landowner liability protection. Users are cautioned that federal, state, and local laws may impose environmental assessment obligations that are beyond the scope of this practice. Users should also be aware that there are likely to be other legal obligations with regard to hazardous substances or petroleum products discovered on the property that are not addressed in this practice and that may pose risks of civil and/or criminal sanctions for non-compliance. The scope of this practice includes research and reporting requirements that support the user’s ability to qualify for landowner liability protection. As such, sufficient documentation of all sources, records, and resources utilized in conducting the inquiry required by this practice must be provided in the written report.

## **1.2 Detailed Scope of Services**

This scope of services is site specific in that it relates to assessment of environmental conditions on a specific parcel of commercial real estate. The Phase I ESA will be performed by

an environmental professional. An environmental professional (EP) is defined as a person meeting the education, training, and experience requirements set forth in 40 CFR § 312.10(b). The scope of services for this Phase I ESA is as follows:

**Government Records Review:** Standard environmental record sources, including Federal, Tribal, and State lists as well as local sources of environmental records were reviewed. We authorized Environmental Data Resources (EDR) to conduct a search of specified government databases and produce a map-based radius search report which would identify sites within the approximate minimum distances pursuant to the ASTM E1527-13 Standard.

**Review of Historical Sources:** Historical records that may have been reviewed include, but are not limited to, aerial photographs, fire insurance (Sanborn®) maps, building department records, chain-of-title documents, city directory abstracts, land use records, and USGS Topographic Maps. The AAI rule requires that historical documents be reviewed as far back in time as the property contained structures or the property was used for agricultural, residential, commercial, industrial, or governmental purposes. Under the AAI rule, historical sources of information must be reviewed as far back as 1940. The AAI rule does not specify a research interval for reviewing historical records.

**Site Reconnaissance:** A site reconnaissance visit was conducted on 9 May 2019 by Mr. Dennis S. Eck, [dse@youngdahl.net](mailto:dse@youngdahl.net).

**Interviews:** Prior to the site visit, the Client was asked to identify a person with good knowledge of the property (the key site manager). A Phase I ESA Questionnaire completed by the Owner's representative to facilitate the collection of information is provided in Appendix A. The AAI rule requires interviews be conducted with the current owner(s) and occupant(s) of the subject property. The AAI rule also requires that additional interviews be conducted with current and past facility managers, past owners, operators or occupants of the property, and past employees, as necessary to meet the objectives of the AAI rule. The AAI rule allows the environmental professional to determine whether such interviews are necessary.

**Identify Data Gaps:** If a data failure is encountered, the report shall document the failure and, if any of the standard historical sources were excluded, the environmental professional will give the reasons for their exclusion. If data failure represents a significant data gap, the report shall comment on the impact of the data gap on the ability of the environmental professional to identify recognized environmental conditions. If the data gaps are found, the environmental professional can and does not warrant nor guarantee that no significant events, releases, or conditions arose during the periods of such data gaps.

**Evaluation and Report Preparation:** The findings, opinions, and conclusions in the Phase I ESA report are supported by documentation. The report: (1) describes all services performed; (2) has a findings section which summarizes known or suspect environmental conditions associated with the property, and which may include recognized environmental conditions, historical recognized environmental conditions, and de minimis conditions; (3) includes Youngdahl Consulting Group Inc.'s opinion(s) of the impact on the property of the known or suspect environmental conditions identified in the findings section as well as the logic and reasoning used in evaluating information collected during the course of the investigation; and (4) includes a conclusions and recommendations section that summarizes the recognized environmental conditions connected with the property and presents recommendations to address those conditions. The report will include an analysis of the relationship of the purchase price of the subject property to the fair market value of the property, if it were not contaminated.

Report Shelf Life: Under the AAI rule, a prospective property owner may use a Phase I ESA Report without having to update any information collected as part of the inquiry: (1) if the all appropriate inquiries investigation was completed less than 180 days prior to the date of acquisition of the property or (2) if the Phase I ESA report was prepared as part of a previous all appropriate inquiries investigation and was completed less than 180 days prior to the date of acquisition of the property. A prospective property owner may use a previously conducted Phase I ESA Report: (1) if the Phase I ESA report was prepared as part of a previous all appropriate inquiries investigation for the same property; and (2) if the information was collected or updated within one year prior to the date of acquisition of the property; and (3) certain aspects of the previously conducted report are conducted or updated within 180 days prior to the date of acquisition of the property. These aspects include the interviews, on-site visual inspection, the historical records review, the search for environmental liens, and the declaration by the environmental professional responsible for the assessment or update.

### **1.3 Significant Assumptions, Limitations, and Exceptions**

This report and review of the subject property is limited in scope. All appropriate inquiry does not mean an exhaustive assessment of a clean property. There is a point at which the cost of information obtained or the time required to gather it outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. One of the purposes of the ASTM 1527-13 practice is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing an ESA and the reduction of uncertainty about unknown conditions resulting from additional information. The appropriate level of inquiry will be guided by the type of property subject to assessment, the expertise and risk tolerance of the user, and the information developed in the course of the inquiry. This type of investigation is undertaken with the risk that the presence, full nature, and extent of contamination would not be revealed by visual observation and review of available data alone. The findings presented in this report were based on field observations and review of available data. Therefore, the data obtained is clear and accurate only to the degree implied by the sources and methods used. The information presented herewith was based on professional interpretation and on the data obtained. A review of regional radon values was performed as part of this study. A general discussion of the potential for asbestos-containing building material or lead-based paint to be present on the subject property is also included as part of this study.

### **1.4 Special Terms and Conditions and/or Additional Services**

A Phase I ESA meeting or exceeding the ASTM 1527-13 practice and completed less than 180 days prior to the date of acquisition (the date on which a person acquires title to the subject property) or the date of the intended transaction is presumed to be valid. If within this period the assessment will be used by a different user than the user for whom the assessment was originally prepared, the subsequent user must also satisfy the User's Responsibilities set forth in Section 1.5. Users and environmental professionals may use information in prior environmental site assessments provided such information was generated as a result of procedures that meet or exceed the requirements of ASTM 1527-13.

### **1.5 User Responsibilities**

The user should provide reasonably ascertainable land title records and judicial records for review for the existence of environmental liens or activity and use limitations (AUL), if any, that are currently recorded against the property. AULs are an explicit recognition by a federal, tribal, state, or local regulatory agency that residual levels of hazardous substances or petroleum products may be present on a property, and that unrestricted use of the property may not be acceptable. If the user is aware of any specialized knowledge or experience that is material to recognized environmental conditions in connection with the property, it is the user's

responsibility to communicate any information based on such specialized knowledge or experience to the environmental professional, and before the site reconnaissance is conducted.

In a transaction involving the purchase of a parcel of commercial real estate, the user shall consider the relationship of the purchase price of the property to the fair market value of the property if the property was not affected by hazardous substances or petroleum products. The user should try to identify an explanation for a lower price which does not reasonably reflect fair market value if the property were not contaminated, and make a written record of such explanation. If the user is aware of any commonly known or reasonable ascertainable information within the local community about the property that is material to recognized environmental conditions in connection with the property, it is the user's responsibility to communicate such information to the environmental professional before the site reconnaissance is conducted.

### **1.6 Reliance**

This Phase I ESA has been prepared for and is intended for the use of Winn Communities and their consultants. This report is valid as of the date stated on the document; the report should not be relied upon for information concerning changes in the condition of the property after the report was prepared.

## **2.0 SITE INFORMATION**

### **2.1 Site Description**

The property description referred to herein is based on a Sacramento Assessor's Parcel Map and on a site reconnaissance performed by representatives of Youngdahl Consulting Group, Inc. (Youngdahl). These were also the basis for the "Vicinity Map" - Figure 1. The subject site is irregular in shape, consists of 283.5 acres of land, and is assigned the following Sacramento County Assessor's Parcel Numbers (APNs):

- 072-0300-001 (12555 Grant Line Road)
- 072-0300-002 (12565 Douglas Road, Divine Property)
- 072-0300-005 (12525 Douglas Road, Whitlow Property)
- 072-0300-008 (12535 Douglas Road)
- 072-0300-010 (No Address)
- 073-0010-011 (3450 Grant Line Road)

The subject property is primarily used for grazing land and residential homes with associated outbuildings are within parcels 072-0300-002, -005, -008 and 073-0010-011. An orchard was observed in the northeastern corner of the subject site. The site is also located near known contamination areas associated with the Aerojet General Corporation National Priorities List Superfund Site (Aerojet General Corp.), and a monitoring well associated with the Superfund site was observed within subject property boundaries.

### **2.2 Legal Description**

This report presents the results of the Phase I Environmental Site Assessment (ESA) performed on Sacramento County APNs 072-0300-001, -002, -005, -008, -010 and 073-0010-011.

### **2.3 Environmental Liens or Activity and Use Limitations**

A review of the title reports for each parcel and the completed environmental questionnaires (Appendix A) showed no indication of environmental liens or activity and use limitations for the properties (Appendix A).

## 2.4 Specialized Knowledge and Commonly Known or Reasonably Ascertainable Information

Mr. Whitlow and Mr. Divine indicated specialized knowledge of their respective properties on the completed questionnaires (Appendix A); Mr. Carpenter did not indicate specialized knowledge of the remaining parcels on his completed questionnaire (Appendix A).

## 2.5 Valuation Reduction for Environmental Issues

Mr. Divine marked “Unknown” for his parcel to the question regarding valuation reduction on the completed questionnaire (Appendix A). Mr. Whitlow and Mr. Carpenter marked “No” for the remaining parcels on the completed questionnaires (Appendix A).

## 2.6 Reasons for Performing the Phase I ESA

The user, Winn Communities, requested the completion of the Phase I ESA per ASTM E1527-13.

## 3.0 INTERVIEWS

### 3.1 Interviews with Past and Present Owners, Key Site Manager, and/or Occupant

#### *072-0300-005 (12525 Douglas Road, Whitlow Property)*

Mr. David Whitlow, property owner, was contacted by phone regarding this parcel. He informed us that they are currently in Missouri and are not full-time residents. A rancher who uses the property for grazing is the only individual currently taking care of the property. He also informed us that no other changes have occurred since the last site reconnaissance by Youngdahl in 2018.

#### *072-0300-002 (12565 Douglas Road, Divine Property)*

Mr. David Divine, property owner, was contacted by phone regarding this parcel. Mr. Divine is the current property owner and had mentioned that no changes have occurred since the last site visit by Youngdahl. When asked about the stained soils near the east garage, Mr. Divine mentioned that any staining may be from washing the lawnmower, which occurs near the east garage. Mr. Divine also informed us that the property at 072-0300-008 (12535 Douglas Road) was owned by a Mr. Tony Fagundes until approximately 2009. Mr. Divine mentioned that he helped Mr. Fagundes with some of the buildings on his property and that any 55-gallon drums may have been used for diesel fuel for a tractor. A number for Mr. Fagundes was provided to us.

#### *072-0300-008 (12535 Douglas Road)*

Mr. Tony Fagundes, past owner, was contacted by phone regarding this parcel. Mr. Fagundes informed us that he had lived at the property for 27 years prior to moving to the Auburn, CA area. He primarily used the property for raising farm animals and minor agriculture as dry crop wheat near the existing home. The west building was a workshop and garage. He also mentioned having a chicken coop and a stable building, located north of the residence. He had no information about the potential holding tank adjacent to the stable building. The domestic well located east of the home was fitted with a pressure system and filter which was also sampled monthly while Mr. Fagundes resided at the property. This was due to the potential encroachment of the Aerojet property contamination plume. Mr. Fagundes also mentioned that any 55-gallon drums he had on-site would have been used for mineral oil which is used in animal feed.

#### *Mr. George Carpenter, Vice President, Winn Communities*

Mr. Carpenter was contacted by phone regarding the remaining parcels. He mentioned that the inactive water well on 3450 Grant Line Road is planned to be destroyed as part of pre-

construction activities once the project is approved; also, the building was demolished due to a problem with vagrants trespassing and dumping at the property. He also was unaware of any activity and use limitations (AULs) for any of the properties regarding the contamination plume from Aerojet General Corp.

## 4.0 PHYSICAL AND GEOLOGICAL DESCRIPTION

### 4.1 Physical Setting Source(s)

Geologic maps and a current United States Geologic Society (USGS) 7.5 Minute Topographic Series Map of the Buffalo Creek Quadrangle, as well as observations made during our site reconnaissance were used to make interpretations regarding the physical setting of the subject property and the surrounding area. The elevation at the subject property ranges from approximately 210 to 260 feet above mean sea level and is located in Township 8 North, Range 7 East, Section 3, Mount Diablo Base & Meridian.

### 4.2 Regional Geology and Soil Description

The site is located in Rancho Cordova, California, which is found within the Great Valley geomorphic province. This province is an alluvial plain that drains via the Sacramento and San Joaquin Rivers into the San Francisco Bay area. According to the Preliminary Geologic Map of the Sacramento 30' x 60' Quadrangle, California (Gutierrez, 2011), the subject property and vicinity are underlain by the Laguna Formation and a thin strip of Quaternary Alluvium along the central drainage. The Laguna Formation consists of Tertiary age fluvial granitic sands and silts (Schlemon, 2000).

According to the Spring 2017 Department of Water Resources (DWR) well records, one irrigation well is located approximately ½ mile to the southeast. The most recent data obtained from the well on 11 October 2018 shows a groundwater depth of 183 feet below the ground surface (bgs). The sitewide groundwater elevation contour maps produced in 2018 by Geosyntec Consultants show each groundwater layer flowing towards the southwest in the vicinity of the subject property.

The United States Department of Agriculture Natural Resources Conservation Service's Web Soil Survey was accessed on 25 April 2019. Soils present on the site include:

- **7.5 Red Bluff Loam, 2 to 5 percent slopes (Map Unit Symbol 192)**  
Parent Material is alluvium, the unit is well drained, has a medium runoff class, and is prime farmland if irrigated.
- **37.8% Red Bluff-Redding Complex, 0 to 5 percent slopes (Map Unit Symbol 193)**  
Parent material is alluvium, the unit is well drained, has a medium runoff class, and is not prime farmland.
- **21.5% Hicksville Gravelly Loam, 0 to 2 percent slopes, Occasionally Flooded (Map Unit Symbol 159)** Parent material is alluvium, the unit is moderately well drained, has a medium runoff class, and is considered prime farmland if irrigated.
- **33.2% Redding Gravelly Loam, 0 to 8 percent slopes, MLRA 17 (Map Unit Symbol 198)**  
Parent material is Loamy alluvium over clayey alluvium over cemented alluvium all derived from igneous, metamorphic, and sedimentary rock; the unit is moderately well drained; has a very high runoff class; and is not considered prime farmland.

The Department of Conservation Division of Oil, Gas, and Geothermal Resources' Well Finder was accessed and identified no wells within the vicinity of the subject property.

#### 4.3 Regional Radon Values

Elevated radon gas levels in indoor air are a result of radon moving into buildings from the soil, either by diffusion or flow due to air pressure differences. The ultimate source of radon gas in buildings is the uranium naturally present in rock, water, and soil. Some rock types are known to contain more uranium than others. In California, most uranium deposits are relatively small in aerial extent and are located in rural areas. Consequently, the chance of severe radon levels (>200 pCi/L) occurring in buildings in California should be very low. The following rock units in California contain uranium in concentrations above the crustal average: the Monterey Formation, asphaltic rocks, marine phosphatic rocks, granitic rocks, felsic volcanic rocks, and certain metamorphic rocks. According to EPA publication 402-R-93-025, entitled EPA's Map of Radon Zones, California, dated September 1993, Sacramento County is shown to be in Zone 3. Zone 3 has a predicted average radon screening level of less than 2 Pico Curies per Liter, this is considered to be a low value of geologic radon potential.

The California Department of Health Services, California Indoor Radon Levels Sorted by Zip Code was last updated February 2016. The number of tests does not necessarily represent the number of houses tested. A single house may have had several tests conducted. The table contains both long-term and short-term indoor radon measurements. The California Department of Health Services recommends that you take action to reduce radon levels in your house if they are 4pCi/L or greater. Of the 10 tests conducted for Zip Code 95742, 2 were equal to or greater than 4pCi/L.

#### 4.4 Asbestos Containing Building Materials

Asbestos is a set of six naturally occurring silicate minerals used commercially for their desirable physical properties. They all have in common their eponymous, asbestiform habit: long, thin fibrous crystals. The prolonged inhalation of asbestos fibers can cause serious illnesses including malignant lung cancer, mesothelioma, and asbestosis. Asbestos became increasingly popular among manufacturers and builders in the late 19th century because of its sound absorption, average tensile strength, its resistance to fire, heat, electrical and chemical damage, and affordability. It was used in such applications as electrical insulation for hotplate wiring and in building insulation. When asbestos is used for its resistance to fire or heat, the fibers are often mixed with cement (resulting in fiber cement) or woven into fabric or mats.

Most products manufactured today do not contain asbestos. In the industrialized world, asbestos was phased out of building products mostly in the 1970s with most of the remainder phased out by the 1980s. Asbestos containing building materials in residences includes a variety of products, such as: stipple used in textured walls and ceilings; drywall joint filler compound; asbestos contaminated vermiculite, vinyl floor tile; vinyl sheet flooring; window putty; mastic; cement board; furnace tape; and stucco. Asbestos was used a lot in roofing materials, mainly corrugated asbestos cement roof sheets and asbestos shingles. Other sources of asbestos containing materials include fireproofing and acoustic materials. On July 12, 1989, EPA issued a final rule banning most asbestos-containing products. In 1991, this regulation was overturned by the Fifth Circuit Court of Appeals in New Orleans. As a result of the Court's decision, the following specific asbestos-containing products remain banned: flooring felt, roll board, and corrugated commercial, or specialty paper. In addition, the regulation continues to ban the use of asbestos in products that have not historically contained asbestos, otherwise referred to as "new uses" of asbestos. For buildings constructed prior to 1980 (Code of Federal Regulations 29 CFR 1926.11) all thermal system insulation and surface materials must be designated as presumed asbestos-containing building materials (ACBM) unless proved otherwise through sampling. The residences and associated outbuildings within APN 072-0300-008 (12535 Douglas Road) were built sometime between 1975 and 1980; therefore, there is risk that ACBM is present at these structures. All other structures on the subject property were found to have been built after 1980 and are unlikely to contain ACBM.

#### **4.6 Lead-based Paint**

Lead is considered to be a harmful environmental pollutant. In late 1991, the Secretary of the Department of Health and Human Services called lead the "number one environmental threat to the health of children in the United States." Humans are exposed to lead through the air, drinking water, food, contaminated soil, deteriorating paint, and dust. Airborne lead enters the body by breathing or swallowing lead particles or dust once it has settled. Old lead-based paint is the most significant source of lead exposure in the U.S. Lead-based paint in the United States resulted in a court case against the Lead Industries Association. Due in great part to studies carried out by Philip J. Landrigan, paint containing more than 0.06% (by weight of dried product) lead was banned for residential use in the United States in 1978 by the U.S. Consumer Product Safety Commission (16 Code of Federal Regulations CFR 1303). Most homes and other buildings built before 1960 contain heavily leaded paint. Some homes built as recently as 1978 may also contain lead paint. The residence and outbuildings within APN 072-0300-008 (12535 Douglas Road) were built sometime between 1975 and 1980 and potentially contain lead-based paint. The Whitlow property (APN 072-0300-005, 12525 Douglas Road) has a residence and associated outbuildings built sometime between 1980 and 1984; and the Divine property (APN 072-0300-002, 12565 Douglas Road) has a residence that was built in 1994; therefore, there is a low potential risk for lead-based paint.

#### **4.7 Termiticides**

Termiticides - organochlorine termiticides (OC termiticides) are a group of persistent pesticides that were formerly used for termite control in and around wooden structures from the mid-1940s to the late 1980s. These OC termiticides used in the past include chlordane, aldrin, dieldrin, heptachlor, and DDT. Chlordane and other organochlorine pesticides (OCPs) were commonly used as termiticides around structures until 1988. Above-ground use of chlordane was phased out between 1978 and 1983 by the United States Environmental Protection Agency (USEPA); although chlordane was used as a termiticide for wooden structures until it was prohibited in 1988. In 2004, the California Department of Toxic Substances Control (DTSC) evaluated OCPs in soil for proposed school sites on residential properties; finding chlordane in 98 percent of the samples, DDT in 95 percent, dieldrin in 71 percent, and heptachlor in 17 percent. DTSC implemented an "Interim Guidance Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers" in 2006. Due to the dates of construction, all wooden structures within the subject property except for the Divine Property (APN 072-0300-002, 12565 Douglas Road) are at risk of having termiticides present.

#### **4.8 Pesticides**

Prior to 1950, the use of arsenical pesticides and herbicides as lead arsenate (LA) was the most extensively used of the arsenal insecticides. The search for substitutes for LA began when it was discovered in 1919 that contemporary practices for washing produce were failing to adequately remove As residues (Shepard, 1939). Unfortunately, all of the tested alternative materials were found to provide less effective insect control or were more toxic to plants and animals. No adequate substitutes were found until 1947, when the synthetic organic insecticide dichlorodiphenyltrichloroethane (DDT) was introduced. Lead arsenate use in Washington State, USA, effectively terminated in 1948, when DDT became widely available to the public (Benson et al., 1968). Veneman et al. (1983) stated that LA use ceased in Massachusetts, USA, in the early 1950s. All insecticidal uses of LA in the USA were officially banned on 1 August 1988 (USEPA, 1988), with a comment that all registrations for insecticidal use had lapsed before that date.



Organochlorine pesticides (OCPs) were commonly used in the United States between the 1940s and 1970s for public health vector control, agricultural crop production, and pest control around structures. Although most OCPs were banned or withdrawn from use in the 1970s (including DDT), the compounds remain in the environment where surface soils associated with historical agricultural and termite control pesticides are present (DTSC, 2010).

An orchard is visible starting in the 1984 historical aerial photo at the northeast corner of the subject site within APNs 073-0010-011 (3450 Grant Line Road) and 073-0010-010. The orchard is not shown in the 1980 topographic map. Due to the date in which this orchard was created, it is unlikely that lead arsenate pesticides or OCPs are present.

## 5.0 HISTORICAL SOURCES REVIEW

All obvious uses of the property shall be identified from the present, back to the property's first developed use, or back to 1940, whichever is earlier. The term "developed use" includes agricultural uses and placement of fill dirt. Standard historical sources shall be reviewed at approximately five-year intervals. In an effort to fulfill due diligence requirements, Youngdahl Consulting Group, Inc. employed the services of Environmental Data Resources, Inc. (EDR) to provide the following standard historical sources: aerial photographs, USGS topographic maps, local city directories, and fire insurance maps (Sanborn Maps). Standard historical sources may also include: property tax files, recorded land title records, building department records, and zoning/land use records.

### 5.1 Aerial Photographic Review

Aerial photographs for the years 1937, 1952, 1957, 1964, 1966, 1972, 1984, 1993, 1998, 2006, 2009, 2012, and 2016 were provided in the EDR Aerial Photo Decade Package (Appendix B). Interpretations were made in an effort to evaluate former uses of the subject property and adjacent areas, and to determine if any significant topographic or cultural changes have occurred. All photographs were provided at a scale of 1" = 500'. A summary of the photographs reviewed is provided below.

Date	Source	Comments
1937	USDA	The entire subject property consists of vacant land with natural vegetation growth, a creek/drainage (Morrison Creek) is observed to be flowing through the center of the site trending generally northeast-southwest. Grant Line Road is adjacent the northeast corner and continues to the south. The north adjacent property appears to have not been cleared or disced and has more vegetation. The south, west, and east adjacent properties are observed to be vacant.
1952	USGS	Portions of land within the property boundary that are not within major drainages and ephemeral ponds are observed to have been disced. Dredge tailings are visible to the northwest of the subject property.
1957	USDA	No significant changes to the subject property are visible. The southeast adjacent property is observed to be transitioning to be used as an orchard.
1964	USDA	No significant changes to the subject property are visible apart from additional discing. The southeast adjacent property is now a large orchard.
1966	USGS	No changes apart from additional discing of the general area is apparent.
1972	USDA	No changes apart from additional discing of the general area is apparent.

Date	Source	Comments	
1984	USDA	072-0300-002 12565 Douglas Rd (Divine Property)	This parcel is vacant with a section of the south observed to be disced. A residence is observed in the south adjacent parcel.
		072-0300-005 12525 Douglas Rd (Whitlow Property)	A residence, at least two outbuildings, and unknown objects are observed in the east-center of this parcel. Standing water is also visible in the northwest corner. An access road trending north-south is visible to the east of the parcel and continues to the north adjacent parcel.
		072-0300-008 12535 Douglas Rd	A residence is observed in the southwest corner of this parcel. A pond with standing water is observed in the north adjacent property of this parcel.
		073-0010-011 3450 Grant Line Rd	A residence with an outbuilding to its west and other smaller objects are observed in the northeast corner of this parcel. An orchard occupies the area north of the residence, east of Morrison Creek.
		072-0300-010 No Address	The orchard within the west adjacent parcel continues into this parcel.
		072-0300-001 12555 Grant Line Rd	This parcel is vacant with an ephemeral pool in the approximate center.
1993	USDA	072-0300-002 12565 Douglas Rd (Divine Property)	No significant changes observed.
		072-0300-005 12525 Douglas Rd (Whitlow Property)	No significant changes observed.
		072-0300-008 12535 Douglas Rd	One residence and an outbuilding to its north are visible. Several smaller structures, possibly sheds, are visible to the northeast of the residence. Two areas to the southeast and southwest of the residence are observed to have a few rows of unknown crop. The southeast corner of the parcel has standing water within the section of drainage.
		073-0010-011 3450 Grant Line Rd	No significant changes observed.
		072-0300-010 No Address	No significant changes observed. A small structure/object is visible in the north adjacent property.
072-0300-001 12555 Grant Line Rd	No significant changes observed.		
1998	USGS/DOQQ	072-0300-002 12565 Douglas Rd (Divine Property)	A single home surrounded by landscaping is now visible in the center of the parcel. Unimproved access roads and trails are visible running throughout the parcel.



Date	Source	Comments	
		072-0300-005 12525 Douglas Rd (Whitlow Property)	No significant changes observed.
		072-0300-008 12535 Douglas Rd	A building is now visible just northwest from the main residence.
		073-0010-011 3450 Grant Line Rd	No significant changes observed.
		072-0300-010 No Address	No significant changes observed. Two structures are now visible in the north adjacent property.
		072-0300-001 12555 Grant Line Rd	No significant changes observed.
2006	USDA/NAIP	072-0300-002 12565 Douglas Rd (Divine Property)	A fire break has been cleared just north of the residence. An additional structure is visible to the east of the residence. The south adjacent parcel is now partially graded.
		072-0300-005 12525 Douglas Rd (Whitlow Property)	No significant changes observed. The south adjacent parcel is now partially graded.
		072-0300-008 12535 Douglas Rd	No significant changes observed.
		073-0010-011 3450 Grant Line Rd	No significant changes observed.
		072-0300-010 No Address	No significant changes observed.
		072-0300-001 12555 Grant Line Rd	No significant changes observed.
2009	USDA/NAIP	072-0300-002 12565 Douglas Rd (Divine Property)	The terrain is observed to be discolored south of the residence within this parcel. The adjacent southern property has been graded into building pads with paved access roads for a future subdivision.
		072-0300-005 12525 Douglas Rd (Whitlow Property)	No significant changes observed. The adjacent southern property has been graded into building pads with paved access roads for a future subdivision.
		072-0300-008 12535 Douglas Rd	No significant changes observed.
		073-0010-011 3450 Grant Line Rd	No significant changes observed.
		072-0300-010 No Address	No significant changes observed.
		072-0300-001 12555 Grant Line Rd	No significant changes observed.
2012	USDA/NAIP	No significant changes to the parcels within the subject property are observed.	
2016	USDA/NAIP	No significant changes to the parcels within the subject property are observed. The south adjacent property now has residential homes within the partially complete subdivision.	

## 5.2 Review of Historical and Current USGS Topographic Maps

A topographic map is a color-coded line-and-symbol representation of natural and selected artificial features plotted to a scale. Topographic maps show the shape, elevation, and development of the terrain in precise detail by using contour lines and color-coded symbols. The EDR Historical Topographic Map Report (Appendix B) provided maps dated 1891 to 2012. Interpretations were made in an effort to evaluate former uses of the subject property and adjacent areas, and determine if any significant topographic or cultural changes have occurred.

Date	Map Name	Series	Comments
1891	Sacramento, CA	30 Minute	No features are shown within the subject property boundary. Roads and some drainage features are shown in the north and south portions of the map.
1892-1893	Sacramento, CA	30 Minute	No significant changes to the subject and adjacent properties are shown.
1908	Buffalo Creek, CA	7.5 Minute	Topographic information only extends to the area just west of the subject property and does not include the site. A highway in the south is shown trending east-west.
1916	Buffalo Creek, CA	15 Minute	Another topographic map appears to be stitched to the east and does not appear to match this region. The subject site sill lies within areas with no topographic data.
1941	Folsom, CA	15 Minute	Morrison Creek is shown in the central portion of the subject site trending roughly northeast-southwest. Unimproved and light duty roads are shown throughout the area. A boundary or tract depicting a land grant, mining claim, or donation land claim is shown along the east property boundary, trending northeast-southwest. Mine tailings are shown to the west, north, and east from the subject site. A cluster of buildings is shown in the north portion of the map.
1944	Folsom, CA	15 Minute	No significant changes to the subject and adjacent properties are shown.
1954	Buffalo Creek, CA	7.5 Minute	No significant changes to the subject property are shown. Tailings to the north and west appear more extensive.
1967	Buffalo Creek, CA	7.5 Minute	No significant changes to the subject property are shown. Grant Line Road is shown at the northeast property boundary. Douglas Road is shown south of the subject property. A cluster of large buildings is shown at the intersection of Nimbus Road (shown as private) and Douglas Road, southwest from the subject property.
1975	Buffalo Creek, CA	7.5 Minute	No significant changes to the subject and adjacent properties are shown.
1980	Buffalo Creek, CA	7.5 Minute	An unimproved road and single building are shown in the west side of the subject property within 12535 Douglas Road (072-0300-008). Another building is shown near the northeast corner of the subject property (073-0010-011).

Date	Map Name	Series	Comments
2012	Buffalo Creek, CA	7.5 Minute	Only major roadways, topography, and water features are depicted in this map. Roadways within a small subdivision are shown south of the subject site. An additional subdivision is shown in the southwest corner of the map.

### 5.3 Historical City Directory Abstract Review

EDR provided the EDR-City Directory Image Report for review and a copy is provided in Appendix B. Building directories including city, cross reference and telephone directories were reviewed, if available, at approximately five-year intervals for the years spanning 1970 through 2013.

Date	Address	Directory Listing
2014	12535 Douglas Road (Subject Property)	Antonio V Fagundes
2014	12565 Douglas Road (Subject Property)	Occupant Unknown
2014	3417 Grant Line Road	Teichert & Son Inc.
2014	3450 Grant Line Road (Subject Property)	Tamra Harper
2010	12525 Douglas Road (Subject Property)	Marcie A. Whitlow
2010	12535 Douglas Road (Subject Property)	Kelly Hogge
2010	12565 Douglas Rd (Subject Property)	3213 Fitzgerald LLC, Scott S. McMullen, Rockford Family Properties LLC.
2010	3417 Grant Line Road (Subject Property)	Teichert & Son Inc.
2010	3450 Grant Line Road (Subject Property)	Tamra Harper
2005	12525 Douglas Road (Subject Property)	Occupant Unknown
2005	12353 Douglas Road (Subject Property)	Lynne M Fagundes
2005	12565 Douglas Road (Subject Property)	David R Divine
2005	3417 Grant Line Road	Teichert Aggregates Corp
2005	3450 Grant Line Road (Subject Property)	Occupant Unknown
2000	12525 Douglas Road (Subject Property)	Daniel L Lehman
2000	12535 Douglas Road (Subject Property)	B Weisker
2000	12565 Douglas Road (Subject Property)	Occupant Unknown
2000	3417 Grant Line Road	American River Aggregates
2000	3450 Grant Line Road (Subject Property)	Jackie L Hussman
1994	12525 Douglas Road (Subject Property)	Danl L Lehman

Date	Address	Directory Listing
1994	3417 Grant Line Road	American River Aggregates, American River Asphalt
1989	11505 Douglas Road	Aerojet Invstmt LTD, Eaton Drilling Co, Primary Electr Cnst, Sac Heat Treat
1989	12525 Douglas Road (Subject Property)	Danl L Lehman
1989	3450 Grant Line Road (Subject Property)	Orville Clark
1985	11505 Douglas Road	Amer Rvr MGF, Cal Mod Inc., Primary Elect Cnst, Sac Heat Treat
1985	12525 Douglas Road (Subject Property)	Danl L Lehman
1985	3450 Grant Line Road (Subject Property)	John Lash
1980	11505 Douglas Road	Building: Acrylic Products, Amer Waste Containr, Amer Waste LQD, American Waste Cont, B&E Iron & Steel, Cal Mod Inc, Cal Rel Able Elec, Carlson Almm Prdct, Classic Coachworks, Drawers Are Us, EKA Wreckers USA, Engineering Resrch, Extensa Systems, Formula Products, Genrl Elec Med Sts, Haulaway Containers, Instru Spec, Interstate Contrs, J&W Scientific Inc, Keystone Contr Co, Magnum Towers Inc., McDonnell Douglas, Newbel Industries, Peerless Instrument, Reliable Elec Wrks, Security Park, Sloan & Assoc, Trophy Wood Product
1980	12525 Douglas Road (Subject Property)	Danl L Lehman
1980	12535 Douglas Road (Subject Property)	Larry McKenna

#### 5.4 Certified Sanborn Map Report

No Sanborn Map coverage was identified for the subject property.

#### 5.5 Previously Completed Environmental Assessments

*Phase I Environmental Site Assessment of 12565 Douglas Road, prepared by EMG Corp., September 2015*

This report included the barn structure and green waste disposal areas in the north and south, but did not include the single-family residence. The report identifies the adjacent Aerojet contamination plume, but notes that the project site would not be investigated as a source of the contamination. They concluded that contamination does not pose immediate health risk to future occupants due to the project building not being serviced by potable water. Additionally, it is mentioned that the plume does not extend to the private well located near the residence adjacent to the west. No further action or investigation was recommended regarding the off-site regulatory review.

*Phase I Environmental Site Assessment for Divine Property, prepared by Youngdahl Consulting Group Inc., December 2017*

This environmental site assessment was conducted on the Divine property at 12565 Douglas Road (APN 072-0300-002) located at the south-center portion of the subject property of this 2019 report. The conclusions of this report were as follows:



*“Buried green waste can generate methane gas that can subsequently become a soil gas intrusion hazard when explosive amounts can accumulate. The observed green waste is not buried and is able to vent methane directly to the atmosphere.*

*Also, a contaminant plume of trichloroethylene (TCE) was discovered near the subject site. The United States Environmental Protection Agency’s (USEPA) maximum contaminant level (MCL) for TCE in drinking water is 5 ppb. Although the 5 ppb contour of TCE is present near the northwest corner of the project site, it does not extend to the private well located west of the existing property; therefore, it is our opinion that it does not pose a human health risk. **No RECs were identified in connection with the subject property.**”*

*Unfinalized Phase I Environmental Site Assessment for Douglas 98, prepared by Youngdahl Consulting Group, Inc., May 2018*

This assessment was conducted on the Whitlow property located at 12525 Douglas Road (APN 072-0300-005) which is the southwest corner parcel of the subject property of this 2019 report. The RECs discovered for this assessment included the potential presence of lead-based paint and termiticides to be present near the residence, well house, cattle shed, and shed/shop building. Also, there was potential for ACBM within the residence, shop/shed building, and well house which were also considered RECs. Chromated Copper Arsenate within soils adjacent to wood poles observed on this site were considered to be de minimis. The RECs were concluded based off the historic aerial photography and topographic map data provided during preparation of the 2018 report. RECs identified for this current report differ from the conclusions of the former report due to additional data provided by EDR.

## **6.0 REGULATORY RECORDS REVIEW**

The records review consisted of a review of reasonably ascertainable environmental record sources, physical setting sources, and historical use information that will help identify recognized environmental conditions in connection with the property. Reasonably ascertainable record information must be publicly available, obtainable from its source within reasonable time and cost constraints, and be practically reviewable.

### **6.1 Commercial Database Search Review**

In an effort to fulfill due diligence requirements, Youngdahl Consulting Group, Inc. employed the services of Environmental Data Resources, Inc. (EDR) to identify sites listed on regulatory agency databases within approximate minimum search distances from the subject property with potential of existing environmental problems. The term “approximate minimum search distances” means the distances within the area which government records must be reviewed pursuant to ASTM Phase I Standards. The term “minimum search distance” is used in lieu of radius as to include irregularly shaped properties. A current EDR Radius Map with GeoCheck® (EDR Report) was provided by EDR on 1 May 2019 (Appendix C). Included in the report are the dates the original government sources were updated and the dates the sources were last updated by EDR, as well as a list of acronyms used by EDR.

The EDR Radius Map with GeoCheck® (EDR Report) identified seven (7) sites within minimum search distances listed in multiple databases:

- **Aerojet General Corporation**; Highway 50 and Aerojet Road; within subject property. The Aerojet Site is listed in the following databases:



- NPL
  - SEMS
  - CORRACTS
  - RCRA-TSDF
  - RCRA-LQG
  - US ENG CONTROLS
  - USINST CONTROL
  - ENVIROSTOR
  - SWEEPS UST
  - HIST UST
  - CA FID UST
  - US FIN ASSUR
  - ROD
  - PRP
  - PADS
  - CONSENT
- **North Douglas;** NE of Douglas Road; subject property. Listed in the CIWQS database (stormwater plan permits for construction).
  - **American River Asphalt;** 3417 Grant Line Road; 333 feet ENE. Listed in the following databases:
    - AST
    - CERZ HAZ WASTE
    - CERS TANKS
    - EMI
    - ENF
    - Sacramento Co. ML
    - NPDES
    - WDS
    - CIWQS
    - CERS
  - **Grantline Plant;** 3417 Grant Line Road; 333 feet ENE. Listed in the AST database.
  - **Inactive Rancho Cordova Test Site (IRCT);** Nimbus Road; 2246 feet W. This site is listed in the CSP-SLIC database.
  - **Automotive Importing MFG Inc.;** 3920 Security Park Drive; 4256 feet SSW. Listed in the following databases:
    - SEMS-ARCHIVE
    - CORRACTS
    - RCRA-TSDF
    - RCRA-SQG
    - HAZNET
    - FINDS
    - ECHO
  - **General Electric Medical Systems;** 3920 Security Park Drive; 4256 feet SSW. Listed in the ENVIROSTOR, HWP, and CERS databases.

According to the EDR Report, the subject property contains several small areas that are designated as a wetland, per the National Wetlands Inventory (1994).

Due to poor or inadequate information, EDR is unable to map certain sites. These sites are referred to by EDR as Orphans. No Orphan sites were identified in the EDR Report.

The Aerojet Corporation site boundary encroaches into the subject property in the north-center area and is visible in the EDR Radius Map as a National Priority List Site.



## 6.2 Review of State and/or Local Government Records

The Sacramento County NextRequest system was used to request any records pertaining to hazardous materials or well records at each individual parcel within the subject property. Records pertaining to the septic system and private well on the subject site were provided for 12525 Douglas Road (Whitlow property), 12535 Douglas Road, and 12565 Douglas Road (Divine property). Records showing a domestic well at 3450 Grant Line Road (073-0010-011) were provided. The well was permitted to be inactive in February 2015. Past sampling of the well for the Aerojet contamination plume showed that the well had trace level hits of N-Nitrosodimethylamine (NDMA) and no volatile organic compounds or perchlorate. The well was sealed in October 2014 and destruction of the well was mentioned in an email correspondent with a deadline of 26 December 2014; the well has yet to be destroyed.

Records were also provided for the Teichert Aggregates plant located at 3417 Grantline Road. Records show that a number of above-ground storage tank (ASTs) are present at the facility and hold a number of different fuels, oils, and lubricants. Past inspection reports were reviewed and no significant violations were discovered; any spills or violations were found to have been corrected to the satisfaction of Sacramento County.

The State of California Water Resources Control Board's GeoTracker database was researched to identify if sites with groundwater contamination exist within the minimum search distances to the subject property ([www.geotracker.swrcb.ca.gov](http://www.geotracker.swrcb.ca.gov)). Also, the Department of Toxic Substance Control's (DTSC) Envirostor database was researched for sites of environmental concern near or at the subject property (<https://www.envirostor.dtsc.ca.gov/public/>). The subject property was not identified on the GeoTracker or Envirostor web sites.

The Fall 2018 iso-Concentration maps by Geosyntec Consultants depicting the extent of contamination of the Aerojet area for trichloroethylene, perchlorate, and N-Nitrosodimethylamine (NDMA) were reviewed. The NDMA contours do not intersect the subject property. The maps show that the 5 ppb (parts per billion) contour for TCE in groundwater Layers C and D reach monitoring wells OS-10C1/OS-10C2 located in the southwest of parcel 072-0300-001 (12555 Grant Line Road), partially encroaches into parcel 072-0010-011, and continues west through parcel 072-0300-008 to the west adjacent parcel where extraction well 4757 is located. The 50 ppb contour for Layer C encroaches near the northern part of parcel 072-0300-001, near a monitoring well just outside the north property boundary (well OS-5C). The 4 ppb contour for perchlorate in Layer C intersects the subject property at the northeast corner of the site within parcels 072-0010-010 and -011. The maximum contaminant level (MCL) for groundwater and drinking water established by the Environmental Protection Agency (EPA) is 5 ppb for TCE and 6 ppb for perchlorate. Perchlorate is found to be below the MCL at the subject property. Perchlorate and perchlorate anions do not volatilize from water or soil surfaces to air according to the Agency for Toxic Substances and Disease Registry (ATSDR) "Toxicological Profile for Perchlorates," 2008, and was not found to have values for soil vapor or ambient air in screening level criteria tables produced by the EPA and DTSC; perchlorate does not pose a soil vapor intrusion risk. The 5 ppb TCE contour does not intersect any domestic wells within the subject property, but has potential to create a soil vapor intrusion scenario for future development.

According to the Geotracker Website, two Inactive Rancho Cordova Test Sites associated with the past Aerojet Rocketdyne and Boeing activities are located west of the subject property: The Sigma Debris Area and the Antenna Station. Both sites are currently in remediation stages. The Antenna Station Site, located to the northwest, has been designated that No Further Action is necessary as of February 2005, although monitoring and in situ bioremediation continues. The Sigma Debris Area was designated as a No Further Action site in a Remedial Action Plan

and was investigated for soil vapor and contaminated groundwater between 1992 and 2002. Investigation data shows that the site is not a threat to human health and the environment. Monitoring continues as part of the IRCTS as a whole.

The 3920 Security Park Drive site was listed on the Envirostor database. The former General Electric Company Facility was once known as the Administration Area within the Inactive Rancho Cordova Test Site. GE Medical Systems were given authorization to operate a wastewater treatment system and discharge treated wastewater to the facility's septic system and leach field. The treatment system was moved to the neighboring address adjacent to a hazardous waste storage area. An approval of the Closure Certification for the GE facility was issued on June 28, 1991. A Termination of Corrective Action was also issued in July 2009 which was relied almost entirely upon data in a report titled "Remedial Action Plan for the Unsaturated Zone Administration Area IRCTS" dated August 2000 by ENSR.

### 6.3 Vapor Encroachment Screening

Vapor intrusion is the term used to describe the migration of volatile organic compounds (VOCs) via soil vapor from the sub-surface soil and/or groundwater upward into buildings, potentially causing unacceptable chemical exposure for building occupants. The vapor intrusion pathway is evaluated using the Conceptual Site Model (CSM) and vapor intrusion pathway screening. Volatilization of petroleum products in the subsurface occurs via the volatilization of constituents that are in the dissolved phase (in pore water or groundwater), volatilization from light nonaqueous phase liquid (LNAPL) (either mobile or residual) directly, and volatilization from impacted soil. Once the individual constituents are in the vapor phase, they can continue to migrate in the vadose zone (soil zone between first groundwater and ground surface). Transport will occur through diffusion caused by concentration gradients. The greatest movement will take place in the most permeable materials. If the soil-moisture content in the vadose zone is high, then relatively soluble compounds such as ethanol and MTBE will tend not to stay in the vapor phase, but rather will stay in the soil moisture.

Soil vapor is one of the pathways of contamination to the subject property, along with ground water and soil. ASTM E1527-13 requires that vapor migration be treated no differently than contaminated groundwater. The soil vapor contaminant pathway needs to be considered in evaluation of RECs or other environmental concerns. The ASTM Standard Guide for Vapor Encroachment Screening (VES) on Property Involved in Real Estate Transactions (ASTM E2600-10) is the industry-accepted guidance for using Phase I ESA information to determine if a vapor encroachment condition (VEC) exists at the subject property. EDR's Vapor Encroachment Worksheet was designed to assist parties seeking to meet the search requirements of the ASTM E 2600-10. **The Aerojet Rocketdyne, Inc. site was identified during our VES on the property to have a potential to create a soil vapor intrusion scenario.** A copy of the EDR VES is provided in Appendix D.

## 7.0 SITE RECONNAISSANCE

### 7.1 Purpose

A reconnaissance of the subject property and a windshield survey of the surrounding area were conducted by Youngdahl Consulting Group, Inc. on 9 May 2019. Views of the subject property at the time of the reconnaissance visit are presented as Figures 3 - 28.

### 7.2 Subject Property

Some features discussed in this section are shown on the Site Plan – Figure 2.

*APNs 073-0010-011 & -010 (3450 Grant Line Road)*

These parcels are adjoining with 073-0010-010 being a small parcel northeast from 073-0010-011. Collectively, they comprise the east portion of the subject site and together are triangular in shape (Figure 2). The majority of 073-0010-011 is vacant grazing land (Fig. 3), but an orchard of olive trees was observed in the northeastern corner of the parcel (Fig. 4, Photo 3). The orchard also occupies the entirety of APN 073-0010-010. Just south of the orchard is an area once occupied by a residence and was observed to have miscellaneous building debris (Fig. 4, Photo 4); no remnant of the building foundation was observed. Wood poles were also observed near the former residence (Fig. 5, Photo 5). More debris and a dilapidated shed were observed west of the location of the former residence (Fig. 5, Photo 6). A standing wood pole was observed just north of the dilapidated shed (Fig. 6, Photo 7). Near the southwest corner of the orchard, a shallow, rectangular pit (Fig 6, Photo 8) and stockpiled material (Fig. 7, Photo 9) was observed near Morrison Creek. More miscellaneous debris was observed within the orchard (Fig. 7, Photos 10 & 11). An inactive domestic well was observed southwest of the former residence location (Fig. 9, Photo 12). Two steel pipes were seen protruding from the ground to the northwest from the dilapidated shed (Fig. 8, Photo 13).

*APN 072-0300-002 (12565 Douglas Road, Divine Property)*

This parcel occupies the south-center portion of the subject property (Figure 2) and consists of an existing single-family home, a separate garage structure located east of the home (Fig. 9, Photo 14), a small shed just south of the garage outbuilding (Fig. 9, Photo 15), and vacant grazing land to the north and south of the home (Figure 10). Morrison Creek runs through the northern portion of the property, trends generally east-west, and was observed to be dry at the time of our reconnaissance. A fire break was observed north of the home. Oil staining was observed on the graveled area in the vicinity of the east garage building and near stored farm equipment (Figure 11). No large quantities of chemicals and/or fuel were observed in or around the east garage outbuilding. A drastic vegetation change was observed in the southern grazing land, potentially from the previously identified (Youngdahl, 2017) areas where organics were being dumped (Fig. 12, Photo 21). The existing residence is supplied by a well located west of the home; a propane tank was also observed in this area (Fig. 12, Photo 22).

*APN 072-0300-005 (12525 Douglas Road, Whitlow Property)*

This property comprises the southwest section of the subject property and is primarily grazing land (Fig. 13, Photo 23) with a residence along the east-center property line (Fig. 13, Photo 24). Near the residence is an associated well house to the west and a shop/shed building to the south of the well house. A corrugated metal cattle shed is just west of the residence and associated outbuildings (Fig. 14, Photo 25). The well house is northwest from the home (Fig. 15, Photo 26) and the interior is used as storage and to contain the water well (Fig. 15, Photo 27). A wood pole, concrete pad with concrete-filled steel drums, and remnant concrete foundation for a pole were observed north of the residence in the grazing field (Fig. 15, Photos 28 & 29). Additional wood poles are located in the north-center portion of the subject site at Morrison Creek (Fig. 16, Photo 30). The portion of Morrison Creek was observed to be artificially leveed and dammed (Fig. 16, Photo 31).

*APN 072-0300-001 (12555 Grant Line Road)*

This parcel is at the north-center portion of the subject site and consists of vacant grazing land (Figure 17). Standing water in a vernal pool was observed in the approximate center of the parcel. A monitoring well was observed near the southwest corner of the parcel (Figure 18).

*APN 072-0300-008 (12535 Douglas Road)*

This parcel is primarily vacant grazing land in the north (Fig. 19) with a residence and associated outbuildings in the southwest corner and a pond in the southeast corner.

Miscellaneous debris was found to be dumped inside, around, and to the north of the outbuildings. 55-gallon drums observed among the waste to the north of the buildings were found to be primarily used for trash or empty (Fig. 20, Photo 36) except for one drum which was sealed and contained an unknown liquid (Fig. 20, Photo 37). All automotive tanks and parts were observed to be empty (Fig. 21, Photo 38). A small stockpile with discarded tires was also found in the field (Fig. 21, Photo 39). The interior and exterior of the shed located near the debris in the field was filled with more trash and other solid waste; any fuel or chemical containers were empty (Fig. 22). Several sheds and a chicken coop were observed near the residential home which all contained miscellaneous debris and were in late stages of deterioration (Figs. 23, 24, & 25). The western shed had a storage room with miscellaneous items inside (Fig. 25, Photo 47). Underground utilities were observed around the outside walls of the northmost outbuilding including a storage tank of unknown use (Fig. 26). The residence was observed to be vacant and the windows and doors have been boarded up (Fig. 27, Photo 50). A domestic water well was observed just east of the home; a pressure system and filter were in place as a precaution for the contamination plume from the Aerojet General Corp. site (Fig. 27, Photo 51). A pond is created from a section of Morrison Creek being dammed at the southeast corner of the parcel (Fig. 28).

Reconnaissance Item	Observed	Reconnaissance Observations (9 May 2019)
Structures	Yes	<p><b>072-0300-001 (12555 Grant Line Road)</b> None observed.</p> <p><b>072-0300-002 (12565 Douglas Road, Divine Property)</b> Residential home, garage building, &amp; shed.</p> <p><b>072-0300-005 (12525 Douglas Road, Whitlow Property)</b> Residential home, shop/shed, well house, &amp; cattle shed.</p> <p><b>072-0300-008 (12535 Douglas Road)</b> Residential building and multiple outbuildings.</p> <p><b>072-0300-010 (No Address)</b> None observed.</p> <p><b>073-0010-011 (3450 Grant Line Road)</b> Dilapidated shed.</p>
Liquid Storage Systems (UST/AST)	Yes	<p><b>072-0300-001 (12555 Grant Line Road)</b> None observed.</p> <p><b>072-0300-002 (12565 Douglas Road, Divine Property)</b> Tank associated with domestic well.</p> <p><b>072-0300-005 (12525 Douglas Road, Whitlow Property)</b> Tank associated with domestic well</p> <p><b>072-0300-008 (12535 Douglas Road)</b> Underground tank adjacent to shed north of the residence.</p> <p><b>072-0300-010 (No Address)</b> None observed.</p> <p><b>073-0010-011 (3450 Grant Line Road)</b> Pipes coming out of the ground near dilapidated shed are potentially connected to a UST.</p>

Reconnaissance Item	Observed	Reconnaissance Observations (9 May 2019)
Drums	No	<p><b>072-0300-001 (12555 Grant Line Road)</b> None observed.</p> <p><b>072-0300-002 (12565 Douglas Road, Divine Property)</b> None observed.</p> <p><b>072-0300-005 (12525 Douglas Road, Whitlow Property)</b> Concrete filled drums.</p> <p><b>072-0300-008 (12535 Douglas Road)</b> Drums filled with trash and one 55-gallon drum filled with unknown liquid.</p> <p><b>072-0300-010 (No Address)</b> None observed.</p> <p><b>073-0010-011 (3450 Grant Line Road)</b> None observed.</p>
Other Containers	Yes	Miscellaneous containers throughout subject property observed to be of no concern.
PCBs	No.	All existing pole-mounted transformers observed throughout the property were in good shape with no signs of leaks.
Pits/Ponds/Ditches/Caves/Streams/ Lagoons	Yes	Ephemeral ponds throughout the subject property. Morrison Creek is dammed in 072-0300-008 (12535 Douglas Road) and 072-0300-005 (12525 Douglas Road, Whitlow Property), creating ponds.
Stained Soil/Pavement	No	<p><b>072-0300-002 (12565 Douglas Road, Divine Property)</b> Stained soils (de minimis) near east garage building.</p>
Stressed Vegetation	No	None observed.
Solid Waste (Mounds or depressions)	Yes	<p><b>072-0300-001 (12555 Grant Line Road)</b> None observed.</p> <p><b>072-0300-002 (12565 Douglas Road, Divine Property)</b> None observed.</p> <p><b>072-0300-005 (12525 Douglas Road, Whitlow Property)</b> None observed.</p> <p><b>072-0300-008 (12535 Douglas Road)</b> Stockpile of soil with tires in the field northeast from residence.</p> <p><b>072-0300-010 (No Address)</b> None observed.</p> <p><b>073-0010-011 (3450 Grant Line Road)</b> Stockpiles of soil near southwest corner of the orchard.</p>
Waste Water (Discharge into drain/ditch/injection system/stream/adjacent property)	No	None Observed.

Reconnaissance Item	Observed	Reconnaissance Observations (9 May 2019)
Wells (Dry/irrigation/injection/abandoned)	Yes	<p><b>072-0300-001 (12555 Grant Line Road)</b> A monitoring well associated with Aerojet General Corporation.</p> <p><b>072-0300-002 (12565 Douglas Road, Divine Property)</b> Domestic well west of the residence.</p> <p><b>072-0300-005 (12525 Douglas Road, Whitlow Property)</b> Domestic well in well house northwest from the residence.</p> <p><b>072-0300-008 (12535 Douglas Road)</b> Domestic well east of the residence.</p> <p><b>072-0300-010 (No Address)</b> None observed.</p> <p><b>073-0010-011 (3450 Grant Line Road)</b> Domestic well south of the former residence.</p>
Other underground systems	No	<p><b>072-0300-001 (12555 Grant Line Road)</b> None observed.</p> <p><b>072-0300-002 (12565 Douglas Road, Divine Property)</b> None observed.</p> <p><b>072-0300-005 (12525 Douglas Road, Whitlow Property)</b> None observed.</p> <p><b>072-0300-008 (12535 Douglas Road)</b> PVC lines adjacent to the sheds.</p> <p><b>072-0300-010 (No Address)</b> None observed.</p> <p><b>073-0010-011 (3450 Grant Line Road)</b> Two steel pipes protruding from the ground located west of the dilapidated shed.</p>
Septic Systems	Yes	<p><b>072-0300-001 (12555 Grant Line Road)</b> None observed.</p> <p><b>072-0300-002 (12565 Douglas Road, Divine Property)</b> Septic system in lawn north of the residence.</p> <p><b>072-0300-005 (12525 Douglas Road, Whitlow Property)</b> None observed.</p> <p><b>072-0300-008 (12535 Douglas Road)</b> Possible septic tank adjacent to north shed.</p> <p><b>072-0300-010 (No Address)</b> None observed.</p> <p><b>073-0010-011 (3450 Grant Line Road)</b> None observed.</p>

### 7.3 Adjacent Properties

North: Vacant land currently being mined for aggregate.  
 East: Grant Line Road and Teichert Aggregate Plant.  
 South: Residential Subdivision.  
 West: Vacant land.

### 8.0 CONCLUSIONS, OPINION, AND RECOMMENDATIONS

This Phase I Environmental Site Assessment (ESA) was performed for the Preserve, which comprises the following Sacramento County Assessor's Parcel Numbers (APNs):

- 072-0300-001 (12555 Grant Line Road)
- 072-0300-002 (12565 Douglas Road, Divine Property)
- 072-0300-005 (12525 Douglas Road, Whitlow Property)
- 072-0300-008 (12535 Douglas Road)
- 072-0300-010 (No Address)
- 073-0010-011 (3450 Grant Line Road)

This Phase I ESA was conducted for the Winn Communities. Our study consisted of a review of environmental record sources, physical setting sources, review of site related documents, historical use information, and a site reconnaissance. We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitation of ASTM Standard Practice E 1527-13. Any exceptions to, or deletions from, this practice are described in Section 1.0 of this report.

### 8.1 Summary of Historical Subject Property Use Information

Date	Source	Subject Property Observations
1891-2016	Topographic Maps and Aerial Photos	The property had been primarily vacant grazing land with several residences that were constructed starting sometime between 1980 and 1984 with the last residence being built sometime between 1993 and 1998.

### 8.2 Recognized Environmental Conditions (RECs)

Recognized environmental conditions (RECs) are defined in the ASTM Phase I Standards to mean "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that post a material threat of a future release to the environment."

A contaminant plume of trichloroethylene (TCE) was discovered to encroach within some of the northern parcels. The 5 parts per billion (ppb) contour of TCE (the maximum contaminant level) extends to onsite and adjacent monitoring wells, but does not extend to any domestic wells identified on the subject property. **Although existing domestic wells aren't necessarily impacted, the presence of TCE within subject property boundaries has potential to create a soil vapor intrusion scenario and is considered a REC.**

Two steel pipes were observed protruding out of the ground within parcel 073-0010-011 (3450 Grant Line Road). An inactive well was also observed, and we understand that is currently permitted as inactive. **It is our opinion that the two protruding pipes have potential to be connected to an underground storage tank (UST), which is considered a REC.** The orchard that occupies a portion of this parcel and parcel 073-0010-010 was planted sometime between 1980 and 1984, as indicated by the historical aerial photography and topographic maps, which means that lead arsenate and organochlorine pesticides were not likely used.

The residence and outbuildings within APN 072-0300-008 (12535 Douglas Road) were built sometime between 1975 and 1980, and **the structures and soils adjacent to these structures have potential for containing lead-based paint; this has been identified to be a REC.** Within APN 072-0300-008 is an unknown underground system found adjacent to the shed located north of the residence and a 55-gallon drum northeast from the residence with an unknown liquid inside; these are considered RECs if these vessels were used for fuel storage.

All residences and major outbuildings of wood construction on the subject property besides within APN 072-0300-002 (12565 Douglas Road, Divine Property) have the potential for termiticides present in adjacent soils and are considered RECs.

### 8.3 Historic Recognized Environmental Conditions (HRECs)

Historic recognized environmental conditions (HRECs) is a term used to state that the property only includes a resolved or closed out REC that has been completely resolved (“clean closure”) with no restrictions. **This assessment did not identify any HRECs in connection with the subject property.**

### 8.4 Controlled Recognized Environmental Conditions (CRECs)

The new term controlled REC (CREC) describes closed RECs that are managed under an activity and use limitation (AUL). **This assessment did not identify any CRECs in connection with the subject property.**

### 8.5 Recommendations

It is the opinion of the Youngdahl Consulting Group Inc. that the following recommended actions be conducted for the identified RECs:

APN & Address	Identified REC	Recommendation
072-0300-001 (12555 Grant Line Road)	TCE groundwater plume identified by on-site monitoring well.	We recommend that a soil vapor investigation consisting of soil vapor sampling be conducted on the subject property.
072-0300-002 (12565 Douglas Road, Divine Property)	No RECs identified.	No recommendations.
072-0300-005 (12525 Douglas Road, Whitlow Property)	Potential termiticides within soils adjacent to the residence.	We recommend soil sampling near the footprint of the home at a depth of approximately 1 foot to be analyzed for termite pesticides.
072-0300-008 (12535 Douglas Road)	Lead based paint and termiticides in soils adjacent to all buildings. ACBM within all buildings. 55-gallon drum with unknown liquid. Potential underground tank/sump adjacent to shed north of residence. Potential vapor intrusion scenario from the TCE groundwater plume.	We recommend investigation of the potential underground system. Soils adjacent to the buildings should be sampled for total lead in surface soils and termite pesticides at a depth of approximately 1 foot. ACBM should be investigated at the main residence and shed northwest of the residence by a licensed asbestos contractor. Soil vapor sampling as part of a soil vapor intrusion investigation should be conducted.
072-0300-010 (No Address)	No RECs identified.	No recommendations.





<p>073-0010-011 (3450 Grant Line Road)</p>	<p>Two pipes observed protruding from the ground south of the orchard and west from the former residence. Potential vapor intrusion scenario from the TCE groundwater plume</p>	<p>The pipes are potentially connected to a UST and should be investigated. Soil vapor sampling as part of a soil vapor intrusion investigation should be conducted.</p>
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Additionally, all inactive wells that are not planned for future use should be destroyed per Sacramento County requirements. Domestic wells were observed to be within parcels 073-0010-011 (permitted inactive), 072-0300-002, 072-0300-005, and 072-0300-008.

### 8.6 Data Gaps

According to § 3.3.20 of ASTM Standard E 1527-13 a data gap is a lack of or inability to obtain information required by the ASTM Standard despite good faith efforts to gather same. Data gaps may result from incompleteness in any of the activities required by the ASTM Standard. It is our opinion that no significant data gaps were identified.

### 9.0 SELECTED REFERENCES

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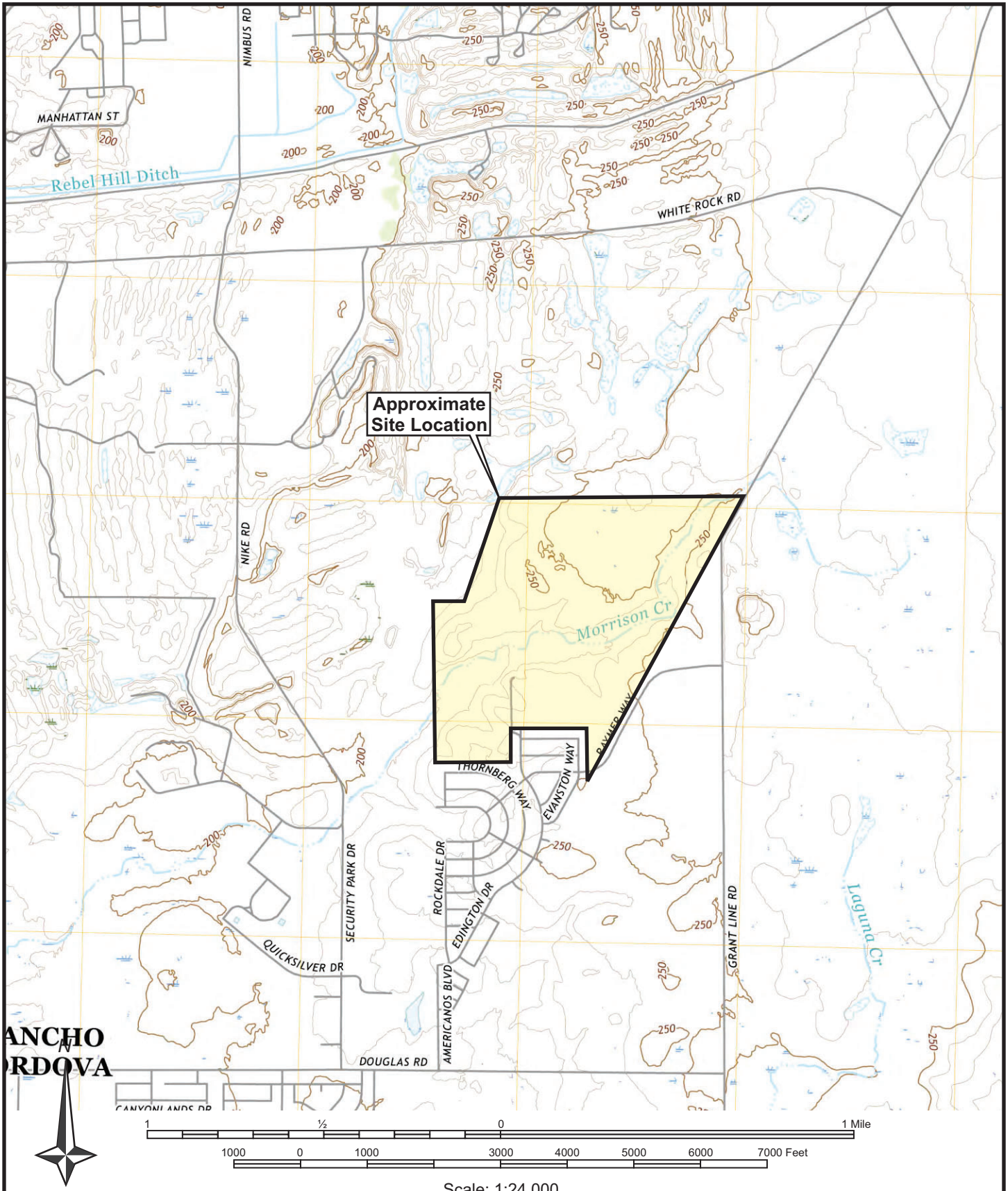
## 10.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

### **David C. Sederquist, C.E.G., C. HG.**

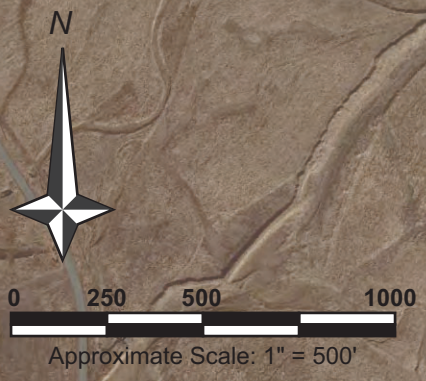
Professional Geologist - California No. 4715; Certified Engineering Geologist, California No. 2133; Certified Hydrogeologist; California No. 619  
Bachelor of Arts in Geology; California State University, Sacramento, 1980

Mr. Sederquist has performed Phase I and Phase II Environmental Site Assessments for commercial, residential, public utility and school projects since 1990. He has assessed, monitored, and closed soil and groundwater contamination sites. He is experienced in working closely with both regulatory officials and property owners/purchasers.

## FIGURES



BASE MAP REFERENCE: U.S.G.S. 7.5 Minute Topographic Series, Buffalo Circle Quadrangle, Dated 2018



**APN: 073-0010-011 & -010 (3450 Grant Line Road)**



**Photo 1:** *Photo of the south portion of parcel 073-0010-011 from Raymer Way.*



**Photo 2:** *Photo of the south west area of parcel 073-0010-011 from the Divine property viewing east.*



**Photo 3:** Photo from the northeast corner of parcel 073-0010-011. The olive orchard is visible to the left. A Siemens pump station and substation in the north adjacent property are visible to the left.



**Photo 4:** Debris was observed in the area where a residence once stood.