

**Phase I Environmental Site Assessment
Proposed Burrowing Owl Mitigation Site
Alameda County, California**

Prepared for

Gruen Gruen & Associates
564 Howard Street
San Francisco, California 94105-3002

HLA Project No. 47442 1



E. Tunstall Lang, Esq.
Project Regulatory Specialist

July 14, 1999



Harding Lawson Associates
Engineering and Environmental Services
90 Digital Drive
Novato, CA 94949 — (415) 883-0112

**Phase I Environmental Site Assessment
Proposed Burrowing Owl Mitigation Site
Alameda County, California**

HLA Project No. 47442 1

This document was prepared by Harding Lawson Associates (HLA) at the direction of Gruen Gruen & Associates on behalf of the State of California Department of General Services – Real Estate Services Division, the only intended beneficiaries of this work. No other party should rely on the information contained herein without the prior written consent of HLA and the Agency. This report and the interpretations, conclusions, and recommendations contained within are based in part on information presented in other documents that are cited in the text and listed in the references. Therefore, this report is subject to the limitations and qualifications presented in the referenced documents.

CONTENTS

1.0	EXECUTIVE SUMMARY	1
2.0	INTRODUCTION	3
2.1	Purpose and Scope of Services	3
2.2	Special Terms and Conditions	4
2.3	Limitations and Exceptions of Assessment	4
2.4	Limiting Conditions and Methodology Used	4
3.0	SITE DESCRIPTION	5
3.1	Location and Legal Description	5
3.2	Site and Vicinity Characteristics	5
3.3	Descriptions of Structures, Roads, Other Improvements on the Site	7
3.4	Information Reported by User Regarding Environmental Liens or Specialized Knowledge or Experience	8
3.5	Current Uses of the Property	8
3.6	Past Uses of the Property	8
3.7	Current and Past Uses of Adjoining Properties	8
3.8	Site Rendering, Map, or Site Plan	9
4.0	RECORDS REVIEW	10
4.1	Environmental Regulatory Agency Records	10
4.3	Physical Setting Sources	11
4.4	Additional Record Sources	11
4.5	Historical Aerial Photographs	12
5.0	INFORMATION FROM SITE RECONNAISSANCE	13
5.1	Access to the Site	13
5.2	Site Visit	13
5.3	Onsite Utilities	15
5.4	Area Reconnaissance	15
6.0	FINDINGS AND CONCLUSIONS	16
7.0	REFERENCES	17

PLATE

- I Site and Vicinity Map

APPENDIXES

- A SITE-SPECIFIC INFORMATION
B SITE PHOTOGRAPHS
C ENVIRONMENTAL DATA RESOURCES, INC., REPORT
D QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS PARTICIPATING IN PHASE I ENVIRONMENTAL SITE ASSESSMENT

DISTRIBUTION

1.0 EXECUTIVE SUMMARY

Harding Lawson Associates (HLA) has prepared this Phase I Environmental Site Assessment (ESA) for Gruen Gruen & Associates on behalf of the State of California Department of General Services - Real Estate Services Division (RES D). The site is Alameda County APN 099B-7010-002-09 (Site), which comprises approximately 140 acres of cattle grazing land at the junction of Alameda, Contra Costa, and San Joaquin counties (Plate 1). The Site is in the northwest corner of the intersection of Bruns Avenue and Kelso Road. The Site will become a burrowing owl sanctuary as mitigation habitat for burrowing owls to be displaced at Agnews State Hospital in Santa Clara, about 40 miles away. Burrowing owls, *Athene cunicularia hypugea*, have been observed on the Site. The owl is a federal, California Department of Fish and Game (DFG), and Audubon Special Concern species and ranked on the DFG's Natural Diversity Data Base as endangered in the state. The RES D is acquiring the Site from the current property owners, Mr. and Mrs. Selwyn Vos, and will turn it over the DFG upon completion of the acquisition.

The purpose of the ESA was to identify recognized environmental conditions at the Site, as defined by the American Society for Testing and Materials (ASTM) Standard E 1527-97, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The scope of services for this ESA included review of historical and environmental data, a Site and area reconnaissance, interviews with people familiar with the Site, and report preparation. No subsurface investigation was undertaken or determined to be necessary as part of the ESA.

The Site is in eastern Alameda County, at the transition between low Coast Ranges hills to the west and flat, level farmland at lower elevations to the east (Plate 1). The area is crossed with electric power transmission lines and natural gas and oil pipelines. Power generation windmills dot the hillsides to the west. The California Department of Water Resources (DWR) California Aqueduct begins northeast of the Site. Historically the area was used for cattle grazing and some dry land farming.

The Delta Pumping Plant, which is the first (northernmost) pumping plant along the California Aqueduct, is adjacent to the Site on the northwest. East of the Site, across Bruns Avenue is a Pacific Gas & Electric Company (PG&E) natural gas compressor station, which was constructed in the early 1990s in conjunction with construction of a new natural gas pipeline. To the south is a residence with associated outbuildings that is accessed via a gravel road along the south boundary of the Site.

The Site is a roughly pentagonal parcel of hilly grassland/rangeland. The Site is fenced use and used for cattle grazing. Elevations range from about 80 feet above mean sea level (MSL) in the northeast portion of the Site to 170 feet MSL in the higher hills onsite and at the west side (USGS, 1978). Two creeks (the northern and southern creeks) cross the Site from roughly southwest to northeast as seen on Plate 1. At least one of the creeks is identified as a jurisdictional wetland. One source of water for the creeks is drainage from the adjacent Delta Pumping Plant for the California Aqueduct. The present property owners have dammed the creeks at several points, creating ponds along the creek beds; drain pipes through the dammed earth connect the "ponds." Supporting information about the Site is in Appendix A; photos are in Appendix B.

Several pipelines and transmission lines cross the Site. Two PG&E natural gas pipelines and a Chevron oil pipeline cross the Site in the pipeline corridor seen on Plate 1. One of the PG&E pipelines is a 42-inch natural gas line installed in the early 1990s. Five years of post-construction environmental monitoring of jurisdictional wetlands through which the pipeline passes was successfully completed, with approval by the U.S. Army Corps of Engineers, Sacramento District, in October 1998. A 60 kV PG&E electric transmission line and a 230 kV transmission line owned and maintained by the U.S. Department

of Energy's Western Area Power Administration (WAPA) cross the Site in separate roughly west - east easements.

There is one building onsite. Mr. and Mrs. Vos constructed an approximately 4,200-square-foot wood frame warehouse in the southeast corner of the Site in the early 1990s. The building is used for storage.

Depth to standing water ranges from 7 to 12 feet, based on the driller's logs (*Hennings, 1990 - 1991*). The lithologic logs indicate that below 2 to 3 feet of top soil, clays, rock, hard rock and black shale occur, with only thin layers of sand and/or gravel. On the basis of site and area topography, groundwater is likely to flow toward the east.

Four types of soil occur onsite (*USDA, 1943*). Surface soil on most of the Site is identified as Linne adobe clay; in the higher, western third of the Site, soil is identified as Altamont clay loam. In the southwest and possibly northwest corners of the Site is Herdlyn loam soil. At the east end of the south creek is Solano loam. Near the southeast corner of the Site, downhill and north from the building, is a likely alkali area.

Recently conducted wildlife surveys on the Site found burrowing owls, red-legged frogs, the California tiger salamander, and western pond turtles. The alkali area described above is a breeding pond for California tiger salamander, according to the wildlife biologist who conducted the surveys.

HLA obtained and evaluated an environmental regulatory agency database report from Environmental Data Resources, Inc., to identify properties within ASTM-recommended search distances from the Site that have documented hazardous materials/wastes problems or the potential to impact the Site. The database report covers the ASTM-recommended databases and provides information on listed properties useful in assessing whether additional records review is necessary.

The EDR report indicates that no properties within the respective ASTM search distances are listed in any of the environmental regulatory agency databases required to be reviewed and that the Site is not listed in any of these databases. The EDR report is in Appendix C.

During HLA's site visit on June 25, 1999, no evidence of recognized environmental conditions was observed onsite.

HLA's Phase I ESA has revealed no evidence of recognized environmental conditions in connection with the Site.

2.0 INTRODUCTION

Harding Lawson Associates (HLA) has prepared this Phase I Environmental Site Assessment (ESA) for Gruen Gruen & Associates on behalf of the State of California Department of General Services - Real Estate Services Division (RES-D). The Site is Alameda County APN 099B-7010-002-09 (Site), which comprises approximately 140 acres of grazing land outside Byron, California, at the junction of Alameda, Contra Costa, and San Joaquin counties (Plate 1). The Site will become a burrowing owl sanctuary as mitigation habitat for burrowing owls to be displaced at Agnews State Hospital in Santa Clara, about 40 miles away. Burrowing owls, *Athene cunicularia hypugea*, have been observed on the Site. The owl is a federal, California Department of Fish and Game (DFG), and Audubon Special Concern species and ranked on the DFG's Natural Diversity Data Base as endangered in the state. The RES-D is acquiring the Site from the current property owners, Mr. and Mrs. Selwyn Vos, and will turn it over the DFG upon completion of the acquisition.

2.1 Purpose and Scope of Services

The purpose of the ESA was to identify recognized environmental conditions at the Site, as defined by the American Society for Testing and Materials (ASTM) Standard E 1527-97, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*:

The term *recognized environmental conditions* means the presence or likely presence of any *hazardous substances or petroleum products* on a *property* under conditions that indicate an existing release, a past release, or a material threat of a release of any *hazardous substances or petroleum products* into structures on the *property* or into the ground, groundwater, or surface water of the *property*. The term includes *hazardous substances or petroleum products* even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

The scope of services for this ESA included the following tasks:

- Records review
 - Site-specific documents provided by the property owner
 - Site-specific environmental regulatory agency database report prepared by Environmental Data Resources, Inc. (EDR)
 - Historical aerial photographs
 - Other related documents and reports
- Site and area reconnaissance
- Interviews with people familiar with the Site
- Report preparation.

No subsurface investigation was undertaken as part of this ESA. The scope of services also did not include surveys for asbestos-containing materials, lead-based paint, or lead in drinking water, nor testing for radon.

2.2 Special Terms and Conditions

This document was prepared for the sole use of Gruen Gruen & Associates, the RESD, and their successors and assigns. No other party should rely on the information contained herein without the prior written consent of HLA and the parties listed above. Our professional judgment to assess the potential for contamination is based on limited data; no other warranty is given or implied by this report.

2.3 Limitations and Exceptions of Assessment

Specific to the ESA, lack of evidence of the presence of recognized environmental conditions following completion of the tasks of a reasonable and mutually agreed-upon scope of work does not guarantee the absence of such conditions; rather, it indicates only that none were found as a result of the services provided. Although the limited nature of HLA's scope of work precludes us from providing a warranty or guarantee regarding the presence or absence of recognized environmental conditions that could potentially affect the Site, HLA has provided its best professional judgment of possible environmental issues and performed the practices and procedures generally accepted in the consulting engineering field.

2.4 Limiting Conditions and Methodology Used

This ESA was conducted in accordance with practices and procedures generally accepted in the environmental consulting field. More extensive assessment that includes surface and/or subsurface investigation and chemical analysis of soil and/or groundwater samples from the Site would provide more definitive information concerning site-specific conditions.

HLA has made no attempt to address future financial impacts to the Site (e.g., reduced property value, difficulty selling the property) as a result of potential subsurface contaminant migration.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The Site comprises approximately 140 acres in Alameda County near the junction of Alameda, Contra Costa, and San Joaquin counties (Plate 1). It is in the northwest corner of the intersection of Bruns Avenue and Kelso Road and just southeast of the Harvey O. Banks Delta Pumping Plant (Delta Pumping Plant or Plant) for the California Aqueduct. The property is Alameda County Assessor's Parcel 099B-7010-002-09. The legal description, taken from the May 3, 1999, preliminary title report prepared by First American Title Guaranty Company is as follows:

REAL PROPERTY in the City of Mountain House School, County of Alameda, State of California, described as follows:

The Southeast quarter of Section 35, in Township 1 South, in Range 3 East of the Mount Diablo Base and Meridian, according to the United States Public Survey thereof.

Excepting therefrom: Those portions thereof described in the deed from Arden Hans Christensen, a single man, to State of California, dated November 8, 1963, recorded May 20, 1964, on Reel 1207, Image 941, Series No. AW-80211, Alameda County Records.

Also excepting therefrom that portion thereof described in the Deed from Arden H. Christensen to Franklin D. Beck and D'Ette G. Beck, dated January 21, 1972, recorded February 1, 1972, Series No. 72-13886, Reel 3051, Image 958, Alameda County Records.

Also excepting therefrom: All oil, gas, casinghead gasoline and other hydrocarbons and mineral substances below a point 500 feet below the surface of the land, hereinabove described together with the right to take, remove, mine, pas [sic] through and dispose of all oil, gas, casinghead gasoline and other hydrocarbons and mineral substances but without any right whatsoever to enter upon the surface of said land, as reserved in the Deed from Ida B. Hays Christensen, a widow, recorded June 30, 1988, Series No. 88-157279.

3.2 Site and Vicinity Characteristics

Vicinity. The Site is in eastern Alameda County, at the transition between low Coast Ranges hills to the west, identified as Canada de Los Vaqueros (USGS, 1968) and flat, level farmland at lower elevations to the east (Plate 1). The dry hilly grasslands west of the Site are dotted with power-generating windmills and also used for cattle grazing. Row crops and wine grapes are grown on the farmland to the east. The area is crossed with electric power transmission lines and natural gas and oil pipelines, and is the starting point for the California Department of Water Resources (DWR) State Water Project and the Project's California Aqueduct. In addition to the California Aqueduct, several other bodies of water are nearby. Water from the Delta flows into the Clifton Court Forebay, about 1½ miles northeast of the Site, and is channeled from there to the Delta Pumping Plant. Water leaves the Plant and flows through Bethany Reservoir, about a mile south of the Site, before being diverted to the Aqueduct itself or to serve Alameda and Santa Clara counties. The reservoir is a DWR recreation area.

The Delta Pumping Plant is adjacent to the Site on the northwest. East of the Site, across Bruns Avenue is a Pacific Gas & Electric Company (PG&E) natural gas compressor station constructed in the early 1990s in conjunction with construction of a new natural gas pipeline. To the south is a residence with associated outbuildings that is accessed via a gravel road along the south boundary of the Site.

The Site: The Site is a roughly pentagonal fenced parcel of hilly grassland/rangeland. Elevations range from about 80 feet above mean sea level (MSL) in the northeast portion of the Site to 170 feet MSL in the higher hills onsite and at the west side (*USGS, 1978*). The Site is zoned A for agricultural use and is used for cattle grazing. Two creeks (the northern and southern creeks) cross the Site from roughly southwest to northeast as seen on Plate 1 and in the photos in Appendix B. At least one of the creeks (the southern creek) has been identified as a jurisdictional wetland. One current source of water for the creeks, according to Mrs. Vos, is drainage from the adjacent Delta Pumping Plant, although this is probably minimal given topography and creek structure. The present property owners have dammed the creeks at several points, creating ponds along the creek beds; drain pipes through the dammed earth connect the "ponds."

Several pipelines and transmission lines cross the Site. Easements for these facilities are noted in the preliminary title report in Appendix A. Two PG&E natural gas pipelines and a Chevron oil pipeline cross the Site in the pipeline corridor seen on Plate 1. A 60 kV PG&E electric transmission line runs diagonally across the Site from southwest to northeast; seven utility poles onsite support the line. The U.S. Department of Energy's Western Area Power Administration (WAPA) constructed a 230 kV transmission line across the Site in the early 1990s; three utility poles support these lines, which run roughly west to east across the Site.

There is one building onsite. Mr. and Mrs. Vos constructed an approximately 4,200-square-foot wood frame warehouse in the southeast corner of the Site in the early 1990s.

Geology/Hydrogeology. Mr. and Mrs. Vos installed several wells to provide domestic and stock/irrigation water. Depth to standing water in the wells ranges from 7 to 12 feet, based on the well driller's logs (*Hennings, 1990 - 1991*). Borehole lithology, however, suggests that there are few sand or gravel (water-bearing) strata to the maximum depth drilled (145 feet), and it is likely that the water is confined and under artesian conditions. The lithologic logs indicate that below 2 to 3 feet of top soil (in some boreholes), clays, rock, hard rock and black shale occur, with only thin layers of sand and/or gravel encountered in only 4 of the 10 borings drilled. On the basis of site and area topography, groundwater is likely to flow toward the east.

Soils. A U.S. Department of Agriculture (USDA) soil survey of the Tracy, California, area included the Site (*USDA, 1943*). The soil map shows that four types of soil occur onsite. Surface soil on most of the Site is identified as Linne adobe clay; in the higher, western third of the Site, soil is identified as Altamont clay loam. In the southwest and possibly northwest corners of the Site is Herdlyn loam soil. At the east end of the south creek is Solano loam. Descriptions of these soils are excerpted from the soil survey in Appendix A, together with the relevant portion of the soil map. Near the southeast corner of the Site, downhill and north from the building is a small (less than 10 feet square) lighter colored area that may be a "moderate" alkali area, based on the soil map, aerial photos, and personal observation. Another possible alkali zone shown on the soil map is at the east end of the southern creek; no alkali conditions were observed in this area.

Endangered Species and Habitat. HLA spoke with Mark Allaback, a wildlife biologist with Biosearch Wildlife Surveys, Santa Cruz, California. Mr. Allaback recently conducted wildlife surveys on the Site, as part of the pre-acquisition studies being conducted on behalf of the RESD. He looked for burrowing owls, red-legged frogs, the California tiger salamander, and western pond turtles. All were observed onsite. Mr. Allaback noted that the ponded area in the extreme southeast portion of the Site just north and downhill of the building (i.e., the alkali area described above) is particularly important as a breeding pond for California tiger salamander. His report describing his findings is in progress.

3.3 Descriptions of Structures, Roads, Other Improvements on the Site

Building: Mr. and Mrs. Vos constructed a wood-frame warehouse/shed building on the southeast corner of the property in 1992-1993. The approximately 4,224-square-foot building includes a gravel-paved garage/storage area and a framed but unfinished open area designed to be suitable for multiple purposes. The building is used for storage.

Wells. Mr. and Mrs. Vos had domestic and irrigation wells installed on the Site between August 1990 and May 1991. HLA was provided with State of California Well Completion Reports for three wells, and lithologic data for 10 well borings, including the three completed wells. Drilling was accomplished by Hennings Brothers Drilling Company, Modesto. Well and lithologic logs indicate that boreholes were drilled to between 70 and 145 feet below ground surface (bgs). One domestic well was installed south of the southern creek. The boring was drilled to a depth of 145 feet and an 8-inch diameter well was installed in the borehole to 100 feet bgs. The interval between 50 and 100 feet bgs was screened. Following well completion, standing water level was 12 feet bgs. Two 110-foot-deep 8-inch-diameter irrigation/stock wells were completed with well screen between 30 and 110 feet bgs. Depth to first water is identified on these well logs as 7 feet. Mrs. Vos indicated that several other irrigation wells were installed by another well driller.

Roads. No paved roads are present onsite. Several dirt roads run across the Site. There is a gravel parking area around the warehouse.

60kv Transmission Line, seven poles. According to a September 1990 letter to Mr. Vos from J.P. Hirko, Acquisition Supervisor, PGT-PG&E Pipeline Expansion Project, the line was constructed by The Standard Electric Company, a predecessor in interest to PG&E, some time between 1899 and 1919. PG&E's earliest records indicate that it was operating at 60 kV in 1919, and has continued to operate at 60 kV. The insulators were apparently changed out in about 1990. The preliminary title report indicates that a 100-foot-wide easement "traversing through a central portion of said land" was recorded in October 1899. A copy of the letter to Mr. Vos and a map showing the locations of the poles are in Appendix A. Photos of this transmission line are in Appendix B.

230 kV Transmission Line, three poles. The three 230 kV poles on the Site are part of the Tracy-Lawrence Livermore Laboratory transmission line constructed by the U.S. Department of Energy Western Area Power Administration (WAPA) in the early 1990s. HLA reviewed project maps showing the right-of-way for the line and its access road that are dated in March, May, and December 1987. The easements to the United States of America for "A 120 foot strip traversing through a central portion of said land" for a transmission line and "A portion of said land" for an access road were recorded in October 1990, according to the preliminary title report. A map showing the transmission line route is in Appendix A.

PG&E Natural Gas Pipelines, Chevron Pipeline. HLA spoke with Ross Kilpatrick, Jr., PG&E's District Foreman, Northern Gas System Maintenance, Tracy District. He indicated that the two PG&E natural gas pipelines that cross the Site are steel pipelines with cathodic protection. Monitoring devices at the compressor station and at the terminal are used to indicate any breaches in the line. The older gas pipeline was installed in 1929, but has been upgraded at various times. This 26-inch-diameter pipeline is visible as it crosses the southern creek onsite. The pipeline installed in the early 1990s is 42 inches in diameter. Both are buried 4 to 5 feet deep in accordance with Department of Transportation regulations.

Environmental monitoring was conducted for 5 years following construction of the 42-inch pipeline. PG&E was required to restore the jurisdictional wetland onsite through which the pipeline passes (i.e., a

portion of the southern creek) and monitor the area for 3 years for the California Public Utilities Commission and 5 years for the Sacramento District, U.S. Army Corps of Engineers (COE), to assure the restored area met Section 404 success criteria. HLA spoke with Ms. Carol Witham, a botanist and vernal pool specialist who conducted the post-construction vegetation monitoring under contract to PG&E. The area received signoff in a letter dated October 13, 1998 from Art Champ, Chief of the Regulatory Branch, Sacramento COE, to Christoffer Ellis, PG&E, Sacramento.

The pipeline corridor is shared with a Chevron oil pipeline, which is west of the PG&E right-of-way. The new 42-inch PG&E pipeline is 25 feet east of the older 26-inch PG&E pipeline, based on a pipeline expansion project wetland delineation map (see Appendix A).

Fiber Optic Line. Mrs. Vos indicated that a buried fiber optic transmission line was installed across the Site (east-west) about 3 years ago, however no further information regarding this line was available.

3.4 Information Reported by User Regarding Environmental Liens or Specialized Knowledge or Experience

Mrs. Vos knew of no environmental liens on the property. No environmental liens are listed in the preliminary title report in Appendix A.

3.5 Current Uses of the Property

The property is currently used for cattle grazing.

3.6 Past Uses of the Property

HLA conducted a telephone interview with Linda Phillips Silvera, Realtor-Associate with Prudential California Realty in Brentwood. Ms. Silvera is the listing agent for the Site. The previous owner of the property was Dr. Arden H. Christensen; the Voses bought the land from the Christensen estate in 1988. Ms. Silvera was the listing agent. In the 1940s and 1950s, according to Ms. Silvera, the Internal Revenue Service provided tax incentives for purchases of farms, and Dr. Christensen took advantage of this tax shelter by owning the Site, which at the time included the 5-acre residential parcel south of the Site. Ms. Silvera indicated that Dr. Christensen leased the land to a local rancher for cattle grazing.

3.7 Current and Past Uses of Adjoining Properties

During the interview with HLA, Ms. Silvera, a long-time resident of the area, indicated that land in the area has historically been used for cattle grazing and some dry farming. Dry farming typically includes crops such as oat hay, for which no fertilizer or irrigation is required. Ms. Silvera also indicated that in the 1950s and 1960s, the area was considered "worthless land," given that the small communities nearby such as Mountain House were becoming "ghost towns" after their post offices were closed.

The following paragraphs describe current uses of adjacent lands.

Northwest - Delta Pumping Plant. Northwest of the Site is the Harvey O. Banks Delta Pumping Plant. The Plant marks the beginning of the California Aqueduct, which extends 444 miles southward to Lake Perris in Riverside County. The Plant and Aqueduct are part of the DWR State Water Project, the largest state-built multipurpose water project in the U.S. (DWR, 1996). Construction of the plant began in 1963 and was completed in 1969. It was built and is operated and maintained by the DWR. Water flows from Delta channels into Clifton Court Forebay, then into an open intake channel and through a fish protection facility before entering the pumping plant. The plant lifts the water 244 feet into the California Aqueduct,

where it flows south by gravity to the San Luis Joint-Use facilities in Merced County. Some water is diverted from nearby Bethany Reservoir to the South Bay Aqueduct, which serves Alameda and Santa Clara counties. The plant was originally constructed with seven pumps; four additional pumps were installed in 1986 to help improve water supply reliability. The plant has a capacity of 6.7 billion gallons of water per day (~21,000 acre-feet). Most pumping is done during "off peak" hours, at night and on weekends when power is cheaper. A photo of the Pumping Plant is included in Appendix B. According to the receptionist at the Plant, the area east-southeast of the Plant's buildings that is adjacent to the Site is the Plant's "boneyard," where unused/discarded items are stored in one of two buildings or on the ground (e.g., pipes, wooden pallets).

East – Bethany Gas Compressor Station. PG&E's natural gas compressor station was constructed in 1992-1993 as part of construction of the new 42-inch-diameter natural gas pipeline that crosses the Site. The facility is east of the Site across Bruns Avenue and occupies approximately 100 acres in the northeast corner of the intersection of Bruns Avenue and Kelso Road. Two 8,800-horsepower variable speed motor-driven centrifugal compressors are operated onsite (*Pipe Line Industry, 1992*). The facility includes several buildings and parking areas. Land at the south end of the facility is burrowing owl habitat/sanctuary (*Kilpatrick, 1999*).

South – Residence. South of the Site is a residential property with several outbuildings.

The remainder of the adjacent lands are used for grazing or are grassland/rangeland.

3.8 Site Rendering, Map, or Site Plan

Plate 1 is a vicinity map. Site and vicinity photographs are in Appendix B.

4.0 RECORDS REVIEW

HLA reviewed a suite-specific environmental regulatory agency database report, historical aerial photographs, and several site-specific reports provided by Mrs. Vos. This section describes the results of our review.

4.1 Environmental Regulatory Agency Records

The American Society for Testing and Materials (ASTM) standard practice for conducting Phase I ESAs to identify "recognized environmental conditions." The practice, ASTM standard E 1527-97, describes and recommends activities for conducting ESAs, identifies standard federal and state "record sources" (e.g., the federal Superfund list), and defines approximate minimum search distances from the Site being assessed for each of these record sources. HLA obtained and evaluated an environmental regulatory agency database report from Environmental Data Resources, Inc., to identify properties within ASTM-recommended search distances from the Site that have documented hazardous materials/wastes problems or the potential to impact the Site. The database report covers the ASTM-recommended databases and provides information on listed properties useful in assessing whether additional records review is necessary.

The EDR report indicates that no properties within the respective ASTM search distances are listed in any of the environmental regulatory agency databases required to be reviewed and that the Site is not listed in any of these databases. The EDR report is in Appendix C.

The databases from which information is compiled include the following. Each database is described in the appendix of the EDR report:

- U.S. Environmental Protection Agency's (EPA) National Priorities List (NPL) for Uncontrolled Hazardous Waste Sites
- EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)
- EPA's Resource Conservation and Recovery Information System (RCRIS), which includes lists of large- and small-quantity hazardous waste generators, transporters, and treatment, storage and disposal facilities; Resource Conservation and Recovery Act (RCRA) corrective action and violators lists
- EPA's Emergency Response Notification System (ERNS) List.
- California Department of Health Services (DHS) Bond Expenditure Plan (BEP)
- California Environmental Protection Agency (Cal/EPA) CalSites Annual Work Plan (AWP)
- California Department of Toxic Substances Control (DTSC) CalSites (ASPIS)
- California Office of Emergency Services (OES) California Hazardous Material Incident Report System (CHMIRS)
- Cal-EPA's Hazardous Material Sites (Cortese)

- California State Water Resources Control Board (SWRCB) Leaking Underground Storage Tank Information System (LUST)
- SWRCB Proposition 65 Notification Records (NOTIFY 65)
- California Integrated Waste Management Board Solid Waste Information System (SWIS)
- SWRCB Toxic Pits Cleanup Act Sites (Toxic Pits)
- SWRCB/Cal-EPA Hazardous Substance Storage Container Database (UST) and Facility Inventory Database (FID)
- SWRCB Waste Management Unit Database System (WMUDS/SWAT).

The EDR report also lists "orphan" sites, that is, properties for which insufficient information is available on a property to identify their locations. Nine properties were in the orphan list. HLA attempted to locate these properties during the site visit or by finding the listed road on a map and estimating the distance from the Site. All "orphan" properties were eliminated as having any potential effect on the Site because of distance:

- Addresses for two properties identified as Leaking Underground Storage Tank (LUST) properties were given. These properties were eliminated because they were located during the site visit and are ½ or more mile from the Site; the search distance for LUSTs is ½ mile (Byron-Bethany Irrigation District, 7995 Bruns Road, and U.S. Bureau of Reclamation, 16800 Kelso Road)
- The Tracy Pumping Plant, listed in a non-ASTM database, is over 1 mile east of the Site.
- Sites on Holey Road and Camino Diablo roads are 2 to 5 miles north of the Site.
- Marciel Ranch Landspreading on Jess Ranch Road, a disposal site, and the San Antone Valley Ranch Corporation at Star Route Box 53, where a registered UST may have been, could not be located. Jess Ranch Road is not listed in either the Contra Costa or Alameda County Thomas Guides, and the ZIP code for the San Antone Valley Ranch Corporation is a Livermore ZIP code.
- Two properties are listed on Byron Hot Springs Road: Byron Hot Springs Landspreading and Windgeneration LLC. Most of Byron Hot Springs Road is a mile or more north or northwest of the Site, but one portion is about ¼ mile west of the Site on the opposite side of the California Aqueduct. These facilities are not listed in MSN Yellow Pages and may not still be in business; in any case, it is unlikely, based on distance and the barrier of the Aqueduct, that they would be likely to impact the Site. HLA did not observe such facilities.

4.3 Physical Setting Sources

HLA reviewed the USGS 7.5-minute series quadrangle maps for Clifton Court Forebay (USGS, 1978) and Byron Hot Springs (USGS, 1953; photorevised 1968). See Plate 1 and Section 3.2.

4.4 Additional Record Sources

Four soils/geology studies have been conducted in the last 10 years for Mr. and Mrs. Vos. HLA reviewed three of the reports; one is not available. One report is the well installation report, discussed in Section 3.3.

In August 1998, Western Farm Service on behalf of Wente Brothers winery drilled and sampled five borings to between 4½ and 8¼ feet bgs at five locations interior to the perimeter of the Site to assess the feasibility of planting a vineyard onsite. The soils were classified as clay, clay loam, sandy loam, loamy sand, and loam. The samples were tested for a suite of analytes including organic content; phosphorus, potassium, magnesium, calcium, sodium; for nitrate and sulfur, and zinc, manganese, iron, copper, and boron; as well as for pH, and for percent sand, silt, and clay. Mrs. Vos was informed that soil conditions onsite would support viticulture.

In August 1994, three samples of silty sand and sandstone taken from the western portion of the Site were tested by Construction Materials Testing, Inc., Concord, California, to assess whether they were suitable for use in construction. Particle size analyses were completed using ASTM D 1140/ D 422. Review of the results indicates that some of the materials could feasibly be used for "Class 2 ASB."

4.5 Historical Aerial Photographs

HLA reviewed seven aerial photographs of the area taken between 1957 and May 1999 for Pacific Aerial Surveys, Oakland, California.

1957. May 21. Scale: 1:12000. In 1957, the Site and area are undeveloped. The pipeline easement crossing the northeast portion of the Site from northwest to southeast is present, as is the 60 kV power line that runs southwest to northeast. The two creeks that cross the Site are there, another apparent low-lying area in the southeast corner of the Site is visible, and Bruns Road is present. The Delta Pumping Plant and Kelso Road have not been constructed.

1968. May 2. Scale: 1:30000. In the 1968 photo, the new Delta Pumping Plant is seen northwest of and adjacent to the Site. Kelso Road has been constructed between the Pumping Plant and Bruns Road. Otherwise, the Site and vicinity are unchanged.

1975. December 17. Scale: 1:54000. The residential/farm buildings adjacent to the Site on the south have been constructed. No other significant changes are visible.

1985. June 27. Scale: 1:36000. The Site and area appear unchanged from the previous photo.

1988. August 31. Scale: 1:12000. The Site appears unchanged. Wind turbines have been installed on land southwest of the Site. No other significant changes are observable.

1992. August 3. Scale: 1:12000. In the 1992 photo the new natural gas pipeline is being installed in the pipeline easement. Construction vehicles are visible in the easement. Construction is also evident on the land east of the Site at the corner of Bruns and Kelso roads. In addition, three new large power poles and power line have been installed west to east across the Site and the building constructed by the current owners has been built in the southeast corner of the Site.

1995. June 21. Scale: 1:12000. Portions of the Site appear to have been disturbed or plowed. Mrs. Vos indicated that portions of the Site were graded that year in areas where they had intended to plant a vineyard. The creek that runs through the middle of the Site has been dammed in several places to create ponded areas along the creek-bed. The area east of the Site that was observed to be under construction in the 1992 photo has been completed; this facility is a PG&E natural gas compressor station. No other significant changes onsite or in the vicinity are apparent.

1999. May 14. Scale: 1:12000. No significant changes onsite or in the vicinity are apparent.

5.0 INFORMATION FROM SITE RECONNAISSANCE

5.1 Access to the Site

The Site is in the northwest corner of the intersection of Bruns Avenue and Kelso Road. From I-580 it is accessed via the Grant Line Road exit, then northeast on Grant Line Road to Mountain House Road; north on Mountain House Road to Kelso Road; then west on Kelso Road to Bruns Avenue. From the north, it is accessed from Byron, the nearest community, by traveling southeast on the Byron-Bethany Road, then south on Bruns Road to Kelso Road.

5.2 Site Visit

On June 25, 1999, Tunstall Lang conducted a site visit and interview with Mrs. Loretta Vos, property owner. Mrs. Vos indicated that she and her husband purchased the land in 1987 as a prospective retirement site and planned to build a home in the central portion of the Site. They installed drinking water and irrigation wells. They decided to sell the property after PG&E constructed the Bethany compressor station across Bruns Road. The land was acquired from the estate of Dr. Arden Christensen. Mrs. Vos indicated that the land was, to her knowledge, always used for grazing. She and her husband have had a grazing contract with a local rancher since they bought the land. The rancher grazes cattle onsite and maintains fire trails and fences.

Mrs. Vos indicated that there are three pipelines in the easement that runs northwest-southeast across the property: two are PG&E natural gas pipelines, one is a Chevron Oil pipeline; Chevron is the successor corporation to Standard Oil, which originally had the easement. Mrs. Vos indicated that the pipelines are 42 to 48 inches below ground surface. The older, 26-inch-diameter natural gas pipeline, however, is exposed as it crosses the southern creek. In addition, the PG&E 60 kV power line crosses the Site southwest to northeast. The newer power line that crosses west to east is owned by the Western Area Power Administration (WAPA), part of the U.S. Department of Energy Power Marketing Administration. Also, approximately 3 years ago, a fiber optic line was installed across the Site to the Delta Pumping Plant.

Mr. and Mrs. Vos built the warehouse onsite in the early 1990s; with uncertainty about the future use of the Site, the interior has remained unfinished past the framing stage. It is currently used for storage of household goods. On the basis of the date of construction (post 1978), it is highly unlikely that any of the building materials contain asbestos or that lead-based paint was used on the exterior.

Other activity onsite since Mr. and Mrs. Vos bought the property includes testing several years ago by Wentz vineyards to assess the suitability of the Site for growing wine grapes, and soils in the northwest corner of the Site along the rock ridge were tested for their appropriateness as roadbed material. HLA reviewed copies of these reports; see Section 4.4.

During the pipeline construction in 1992, consultants conducted wetlands monitoring; subsequently, five years of wetlands monitoring was conducted in a wetland area adjacent to the pipeline, which is exposed as it crosses the creek. A description of the monitoring results is in Section 3.3.

During the site visit, HLA looked for but saw no evidence of the following onsite:

- Pits, ponds or lagoons, other than the creeks/ponds described herein
- Stained soil or pavement

- Stressed vegetation
- Solid waste disposal
- Wastewater discharge
- Septic systems. (Mrs. Vos indicated that they had not put a septic system or installed a leachfield on the Site.)
- Aboveground or underground storage tanks
- Building ruins
- Obvious odors
- Heavy equipment
- Landfills, dumping, or burial activities
- Surface impoundments or holding ponds
- Air emissions or wastewater discharge
- Industrial or manufacturing activities
- Monitoring wells or remedial activities
- Stained or discolored soil
- Leachate or seeps
- Distressed, discolored, or stained vegetation
- Chemical spills or releases
- Groundwater or surface water contamination
- Oil or gas wells exploration, production, or refinery activities
- Farm waste
- Discharges, leachate, migration, or runoff of potential contaminants from offsite sources
- Asbestos-containing materials.

No other environmentally sensitive conditions were observed or are known to be present at the Site.

5.3 Onsite Utilities

Utility providers are:

Water Domestic and stock/irrigation wells were installed onsite by the property owners. None of the wells are currently used.

Sewer No sewer/septic system is present onsite.

Electricity Pacific Gas & Electric Company.

Telephone Pacific Bell.

5.4 Area Reconnaissance

During the site visit, Ms. Lang and Mrs. Vos visited the Delta Pumping Plant, including the "boneyard" area adjacent to the Site. The area is adjacent to the northern creek. One large steel warehouse-type storage building on a concrete pad was observed; it appeared to be about 40 feet by 25 feet. There is also a smaller, similar building. Articles stored in the area include wooden pallets, stacked piping, and the like, and appear unlikely to impact the Site. We also drove south on Bruns Avenue, then west on Christensen Road (parallel to and south of Kelso; see Plate 1) past grazing cattle and an abandoned homestead to Bethany Reservoir. We also observed the PG&E compressor station across Bruns Avenue from the Site; the station is gated and was inaccessible at the time of HLA's visit. Photos of the pumping plant, its "boneyard," and the compressor station are in Appendix B.

6.0 FINDINGS AND CONCLUSIONS

On the basis of the information provided to HLA, as described in the foregoing sections, this Phase I ESA has revealed no evidence of "recognized environmental conditions," as defined by ASTM Standard E 1527-97, in connection with the property. The property is proposed to be used as a sanctuary for burrowing owls. Wildlife surveys have identified the owls, as well as several other endangered species on the Site. The land is used only for grazing and historically has been used for this purpose. The presence of transmission lines and pipelines onsite does not appear to affect the species observed onsite.

The environmental regulatory database report identified no potential offsite sources within the ASTM record search distances. The locations of the "orphan" properties listed in the database report were researched and these properties were found to be beyond the ASTM search distances; no further research into the current conditions of these properties was therefore found to be necessary. HLA recommends no further investigation.

7.0 REFERENCES

A & L Western Agricultural Laboratories, Modesto, CA, 1998. *Soil Analysis Report # 98-226-041*. Re: Vos Ranch/Blkl/Wente Bros, sent to Western Farm Service, Vernalis, Ca 95385. August 18.

Construction Materials Testing, Inc., 1994. Report: Particle Size Analysis of Soils, Job # 92279, for Vos Management & Construction. August 9.

Environmental Data Resources, Inc., 1999. Phase I ESA Mount Diablo Base + Meridian, Livermore, CA 94550, Inquiry Number: 0379681.1r. June 11.

First American Title Guaranty Company, San Jose, CA, 1999. Preliminary Report, Order No. 851408. May 3.

Hennings Bros. Drilling Co., Inc., Modesto, California, 1990 – 1991. Water Well Drillers Reports and well boring logs.

State of California Department of Water Resources, 1996. *Harvey O. Banks Delta Pumping Plant* (brochure). December.

Thiede, Kris. L., 1992. "Design and engineering for PGT-PG&E expansion project," in *Pipe Line Industry*^{*}, Gulf Publishing Co., Houston, TX. April.

U.S. Department of Agriculture, 1943. *Soil Survey of the Tracy Area, California*. Series 1938, No. 5. December.

U.S. Department of Energy, Western Area Power Administration, 1987. Tract Plats and Legal Descriptions, Tracts 103ET and 103EA, Lawrence Livermore Lab – Tracy Transmission Line.

U.S. Geological Survey, 1978. *Clifton Court Forebay Quadrangle, California, 7.5-Minute Series (Topographic)*.

_____, 1953 (photorevised 1968). *Byron Hot Springs, California Quadrangle, California, 7.5-Minute Series (Topographic)*.

Interviewees:

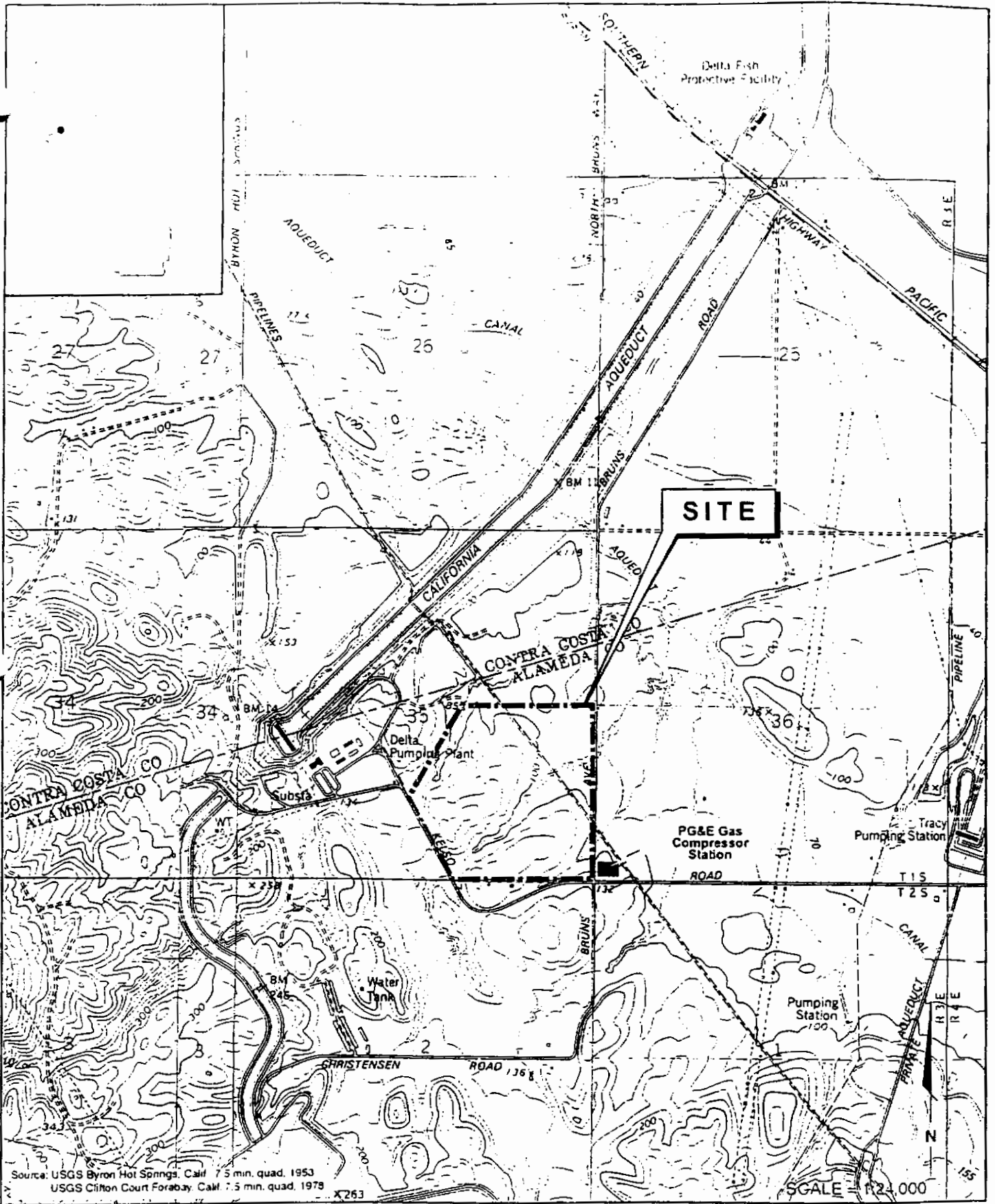
Mark Allaback, wildlife biologist, Biosearch Wildlife Surveys, P.O. Box 8043, Santa Cruz, California 95061. (831) 662-3938.

Ross Kilpatrick, Jr., District Foreman, Northern Gas System Maintenance, PG&E, Tracy District, P.O. Box 270, Tracy CA 95376. (209) 835-1983.

Linda Phillips Silvera, Realtor-Associate/Notary Public, Prudential California Realty, 248 Oak Street, Brentwood, CA 94513. (925) 634-3200.

Carol Witham, botanist and vernal pool specialist. Contractor and subcontractor (through Prunuske-Chatham, Inc., Occidental, CA) to PG&E. (530) 753-5872.

PLATE



Harding Lawson Associates
 Engineering and
 Environmental Services

Site Location and Vicinity Map
 Phase I Environmental Site Assessment
 Burrowing Owl Mitigation Property
 Alameda County, California

PLATE

1

DRAWN
 DJP

JOB NUMBER
 47442 1

APPROVED

DATE
 7/99

REVISED DATE