

2.2 Topography

The subject property is located on the United States Geological Survey (USGS), Bonsall, 7.5-Minute Quadrangle (USGS, 2012). Overall, the subject property is located on moderately sloping terrain consisting of varying topographic relief. The subject property elevation ranges from approximately 415 feet above mean sea level (amsl) at its most southwestern point at the intersection of Circle R Drive and Old Highway 395, and rises gradually in an easterly direction towards its highest point of approximately 960 feet amsl at its northeast portion along Mountain Ridge Road. Based on topographic relief, surface water drainage appears to be predominately to the southwest.

2.3 Regional and Local Geology

The subject property and vicinity lies within the Peninsular Ranges Geomorphic Province of California (CGS, 2002). The Peninsular Ranges Geomorphic Province extends from the Transverse Ranges Geomorphic Province and the Los Angeles Basin, south to Baja California. This province varies in width from about 30- to 100-miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province. The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. The Transverse Ranges Geomorphic Province bounds the Peninsular Ranges on the north.

Major fault zones and subordinate fault zones found in the Peninsular Ranges Province typically trend in a northwest-southeast direction. The closest major faults to the subject property are the Julian segment of the Elsinore Fault zone; the Rose Canyon Fault zone; and the Coronado Bank Fault zone (including the San Diego Trough Fault). Other major faults in the region include the San Jacinto Fault zone and the San Andreas Fault zone. The San Andreas Fault zone is considered the most active fault zone and borders the northeasterly margin of the province.

Geologic maps indicate the general vicinity of the subject property is underlain by Mesozoic aged (Cretaceous) granitic rocks (Tan, 2000). Specifically, the property is underlain by Tonalite of Couser Canyon, described as a Hornblende-biotite tonalite; coarse grained and massive. This Tonalite contain some granodiorite and is characterized by an abundance of pegmatite dikes.

Soils beneath the subject property and vicinity have been identified by the United States Department of Agriculture – Natural Resources Conservation Service, Web Soil Survey as sandy loams of seven soil series including Visalia (VaA), Cieneba (CnG2) Fallbrook (FaC2 and FaE2), Las Posas (LpE2), and Ramona (RaC) soil series (USDA, 2012). Soils in these series are generally deep, moderately to well drained soils that formed in material weathered from granitic rocks and are situated on slopes ranging from 9 to 30 percent.

2.4 Regional and Local Hydrogeology

According to the San Diego Regional Water Quality Control Board (SDRWQCB, 1994), the subject property is located within the groundwater designation of the Bonsall Subarea (HSA – 903.12), which is a part of the lower San Luis Hydrologic Area (HA – 903.10) and located within the San Luis Rey Hydrologic Unit (HU – 903.00). Groundwater beneath the San Luis HA has been identified as having existing beneficial uses for municipal, agricultural, and industrial supply processes.

EEI reviewed the California Department of Water Resources, Water Data Library website (WDL, 2012) for additional information pertaining to groundwater and water supply wells on or close to the subject property. According to the website, there are no water supply wells located within the subject property.

Based on information obtained for a nearby underground storage tank release site, **Circle R Ranch Trading Post** (8751 Old Castle Road, 0.40 miles south of the subject property), the reported depth to groundwater in the site vicinity ranges from 17.47 feet bgs to 21.18 bgs. The groundwater flow direction was reported to be to the north-northeast to north-northwest (SWRCB, 2012).

2.5 Hydrologic Flood Plain Information

EEI contacted the SanGIS, San Diego Geographic Information Source website, and reviewed the Federal Emergency Management Act (FEMA) web site (FEMA, 2004) to determine if the subject property lies within a Flood Hazard Zone as designated by FEMA. According to the information reviewed, the subject property is situated within Zone X. Zone X is designated as being areas of 500-year flood; areas of 100-year flood with average depths of less than one foot or with drainage areas less than one square mile, and areas protected by levees from 100-year flood.

3.0 SUBJECT PROPERTY BACKGROUND

3.1 Subject Property Ownership

Given that the subject property consists of vacant land associated with a sewer easement, the property owner information was not readily available.

3.2 Subject Property History

EEI reviewed readily available information sources to evaluate historic land use in and around the subject property. These information sources include information from aerial photographs, USGS maps and the County of San Diego. The information sources reviewed is summarized in the following sections.

3.2.1 Aerial Photograph and Historical Map Review

Aerial photographs and historical topographical maps were reviewed to identify historical land development and any surface conditions which may have impacted the subject property. Photographs and historical topographic maps dating 1942, 1946, 1949, 1951, 1953, 1963, 1968, 1975, 1976, 1980, 1989, 1990/91, 1994, 2002, and 2008 were obtained and reviewed from Track Info Services/FirstSearch®, an environmental information/database retrieval service. A 2010 aerial photograph was obtained from Google Earth®. and reviewed, a copy of which is included herein (**Figure 2**).

Table 1 summarizes the results of the historical use review. Copies of the aerial photographs and historical topographic maps provided by Track Info Services/FirstSearch® are included in **Appendix C**. According to the information reviewed, the Circle R Drive was present within the Subject property from at least 1946. Mountain Ridge Road was present within the Subject property in approximately 1968. The Subject property has mainly been bordered by agricultural land and rural residential development throughout history. Development including a golf course appeared bordering the southwest portion of the Subject property in 1989. The Moosa Canyon WRF appeared bordering the southwest corner of the Subject property in 2010.

TABLE 1 Summary of Historical Use Review		
Year	Source and Scale	Comments
1942	Topographic Map 1:62,500	The central portions of Circle R Drive were visible; however, Old Highway 395 and Mountain Ridge Road were not covered. A single feature, a school, was noted along the western side of Circle R Drive.
1946	Aerial Photograph 1:23,600	Circle R Drive was present; however, it did not extend west to meet with Old Highway 395. Mountain Ridge Road was not present. A ranch appeared along western end of Circle R Drive. No other significant development was noted along the easement route.
1949/1951	Topographic Map 1:24,000	The entire Subject property along Circle R Drive was visible; however, the road did not extend west to Old Highway 395. Circle R Ranch was present along the western end of Circle R Drive. No other features were noted along the easement route. Moose Canyon was noted to the south. West Lilac Road was present to the north and Highway 395 to the west.
1953	Aerial Photograph 1:20,000	No apparent changes were noted along Circle R Drive since the 1946 photograph.
1963	Aerial Photograph 1:20,000	Increased agricultural and residential development appeared along the subject route and in the site vicinity. No apparent changes were noted to Circle R Drive.
1968/1975	Topographic Map 1: 24,000	Mountain Ridge Road now appeared as an unimproved road. Old Castle Road was present to the south. A golf course was present near the southeast corner of Circle R Drive and Old Highway 395.
1976	Aerial Photograph 1:36,000	A significant increase in agricultural and rural development was noted along the subject route and in the site vicinity. Mountain Ridge Road was now present. A golf course was present near the southeast corner of Circle R Drive and Old Highway 395.
1980	Aerial Photograph 1:36,000	Highway 395 now appeared located west of Old Highway 395. No apparent changes were noted to Circle R Drive or Mountain Ridge Road. Increased development was noted in the surrounding area.
1989/1990 and 1991	Aerial Photograph 1:40,000	Circle R Drive now extended west and intersected with Old Highway 395. A residential subdivision/golf course appeared on the south side of Circle R Drive at its western portion. The Moosa Canyon WRF was present at the southeast corner of Circle R Drive and Old Highway 395.
1994/2002/2008	Aerial Photograph 1:40,000	Additional development appeared south of Circle R Drive near its intersection with Old Highway 395. No other apparent changes were noted along the easement route.
August 2010	Aerial Photograph <u>Accretive Investments, Inc.</u>	The subject route appeared as its current configuration. The Moosa Canyon WRF was present at the southeast corner of Circle R Drive and Old Highway 395, while an RV Park appeared at the northwest corner. Castle Creek Country Club and Golf Course appeared to the east of the sewer station. A mix of agricultural land and rural residential development appeared along the remainder of Circle R Drive and Mountain Ridge Road.
2012	Topographic Map 1:24,000	Circle R Drive now extended directly west of Circle R Ranch and intersected with Old Highway 395. The Circle R Golf Course was indicated near this intersection as well as an RV Park. Mountain Ridge Road now appeared as an improved road.

3.2.2 City/County Directory

Due to the absence of development on the subject property, and therefore, the lack of directory information, as well as the agricultural and rural land uses of the surrounding area, this information source was not researched as it was not deemed to be sufficiently useful.

3.2.3 Sanborn Fire Insurance Maps

Sanborn Fire Insurance maps were developed in the late 1800s and early 1900s for use as an assessment tool for fire insurance rates in urbanized areas. An on-line search was made at the Los Angeles County Public Library's collection of Sanborn Fire Insurance maps (LAPL, 2012). Sanborn map coverage was not available for the subject property and/or surrounding area; therefore, indicating little or no development prior to the 1950s.

3.2.4 County of San Diego Land Use and Environmental Group

Due to the absence of structural development on the subject property, and therefore, the lack of any associated address or building permit records, this information source was not researched as it was not deemed to be sufficiently useful.

3.3 Regulatory Database Search

EEI reviewed known electronic database listings for possible hazardous waste generating establishments in the vicinity of the subject property, as well as adjacent sites with known environmental concerns. Facilities were identified by county, state, or federal agencies that generate, store, or dispose of hazardous materials. The majority of information in this section was obtained from FirstSearch®, an environmental information/database retrieval service. A copy of the FirstSearch® report is provided in **Appendix D**, along with a description of the individual databases. The subject property was not listed on any of the databases researched.

3.3.1 Federal Databases

National Priority List (NPL) – No listings were reported within one mile of the subject property.

NPL Delisted – No listings were reported within one-half mile of the subject property.

Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) – No listings were reported within one-half mile of the subject property.

CERCLIS (NFRAP) Archive – No listings were reported within one-half mile of the subject property.

Resource Conservation and Recovery Information System (RCRA) Corrective Action Sites (COR) – No listings were reported within one mile of the subject property.

RCRA TSD Facility List (RCRA-D) – No listings were reported within one-half mile of the subject property.

RCRA Generators (RCRA-G) – No listings were reported within one-quarter mile of the subject property.

RCRA No Longer Regulated (NLR) – No listings were reported within one-eighth mile of the subject property.

Federal Brownfield – No listings were reported within one-quarter mile of the subject property.

Emergency Response Notification System (ERNS) – No listings were reported within one-eighth mile of the subject property.

The subject property was not identified on any of the above-referenced databases researched.

3.3.2 State and Regional Sources

Tribal Lands – One listing was reported within one mile of the subject property: **Bureau of Indian Affairs Contact I**. One nongeocoded site was listed as **Bureau of Indian Affairs Contact 1** (location unknown). Tribal lands listings are generally not locations or releases, but placeholders used to contact the local Bureau of Indian Affairs representative for information on tribal lands in the area.

State/Tribal Sites – No listings were reported within one mile of the subject property.

State Spills 90 – No listings were reported within one-eighth mile of the subject property.

State/Tribal Solid Waste Landfill (SWL) Sites – No listings were reported within one-half mile of the subject property.

State/Tribal California State Leaking Underground Storage Tanks (LUST) – Four listings (two duplicated) were reported within one-half mile of the subject property. EEI reviewed the on-line database GeoTracker, which provides records on LUSTs, maintained by the SWRCB, for more information regarding these cases.

Castle Creek Country Club (8797 Circle R Drive, located adjacent to the subject property on the south side of Circle R Drive, approximately 0.40 miles east of Old Highway 395), reported a diesel fuel release in 1990, which reportedly impacted the soil only. The case was closed by the San Diego County DEH on March 6, 1992. No other information was available on GeoTracker. Based on the fact that the site has been closed by a regulatory agency, and the fact that only soil was impacted by the release, this site is not considered an environmental concern.

Circle R Ranch Trading Post (8751 Old Castle Road, 0.40 miles south of the subject property), reported a gasoline release in 1993. The case was closed by the San Diego DEH on December 3, 1996. EEI reviewed the San Diego DEH case closure summary on GeoTracker. According to the summary, food and gasoline dispensing operations were discontinued at the site in 1990. Site investigation efforts in 1994 and 1995 delineated the full extent of petroleum hydrocarbons (gasoline) in the subsurface soil and groundwater. The extent of contamination was localized in the immediate vicinity of the former USTs. In June 1996, 268 tons of contaminated soil was excavated and transported offsite for treatment. Two downgradient groundwater monitoring wells contain no detectable petroleum hydrocarbon constituents. The report stated that the depth to groundwater at the site ranges from 17.47 feet bgs to 21.18 bgs. The groundwater flow direction was reported to be to the north-northeast to north-northwest. Based on the fact that the site has been closed by a regulatory agency, this site is not considered an environmental concern.

State/Tribal Permitted Underground Storage Tanks (UST)/Aboveground Storage Tanks (AST) – Four listings were reported within one-quarter mile of the subject property.

Moosa Water Treatment Facility (8711 Circle R Drive, located adjacent to the subject property at the southeast corner of Circle R Drive and Old Highway 395), was reported as the site of an underground diesel fuel tank which was reported as removed in 1992.

Castle Creek Country Club (8797 Circle R Drive, located adjacent to the subject property on the south side of Circle R Drive, approximately 0.40 miles east of Old Highway 395), was listed as the site of two underground diesel fuel tanks which were removed in 1990, and 1992.

Rocky H Ranch (9370 Circle R Drive, located adjacent to the subject property along Circle R Drive, approximately 0.50 miles west of Mountain Ridge Road), was listed as the site of two gasoline USTs. The status of the tanks is listed as “exempt.”

Rancho Del Las Piedras Corp (30508 Circle R Way, located adjacent to the subject property at the intersection of Circle R Way and Circle R Drive), was listed as the site of two gasoline USTs

Operating permits are not generally rationale for environmental concern, unless a release has occurred at the site. One of the sites was listed with a release on the LUST database, **Castle Creek Country Club**, and is discussed above in the LUST section. The remaining listings have not reported a release; therefore, are not considered a concern.

State/Tribal IC/EC – No listings were reported within one-quarter mile of the subject property.

State/Tribal Voluntary Cleanup Program Properties (VCP) – No listings were reported within one-half mile of the subject property.

State/Tribal Brownfields – No listings were reported within one-half mile of the subject property.

State Permits – Six listings (one site duplicated) were reported within one-quarter mile of the subject property. The sites, **Helen T Knox** (9678 Circle R Drive, located adjacent to the subject property at the northeast corner of Circle R Drive and Mountain Ridge Road); **Castle Creek Inn and Spa** (29850 Circle R Way, located adjacent to the subject property at the intersection of Circle R Way and Circle R Drive); **Moosa Water Treatment Facility** (8711 Circle R Drive, located adjacent to the subject property at the southeast corner of Circle R Drive and Old Highway 395); and **Castle Creek Country Club** (8797 Circle R Drive, located adjacent to the subject property on the south side of Circle R Drive, approximately 0.40 miles east of Old Highway 395).

Operating permits are not generally rationale for environmental concern, unless a release has occurred at the site. One of the sites was listed with a release on the LUST database, **Castle Creek Country Club**, and is discussed above in the LUST section. The remaining listings have not reported a release; therefore, are not considered a concern.

State Other – No listings were reported within one-quarter mile of the subject property.

Federal IC/EC – Six listings were reported within one-quarter mile of the subject property.

Hazardous Waste Manifest – Two listings were reported within one-quarter mile of the subject property. The sites: **Deer Springs Fire Protection District** (8709 Circle R Drive, located adjacent to the subject property on the south side of Circle R Drive, approximately 0.14 miles east of Old Highway 395); **Castle Creek Country Club** (8797 Circle R Drive, located adjacent to the subject property on the south side of Circle R Drive, approximately 0.40 miles east of Old Highway 395); and **B&C Crane Service Inc.** (30007 Old Highway 395, 0.15 miles south of the intersection of Circle R Drive and Old Highway 395).

Operating permits are not generally rationale for environmental concern, unless a release has occurred at the site. One of the sites was listed with a release on the LUST database, **Castle Creek Country Club**, and is discussed above in the LUST section. The remaining listings have not reported a release; therefore, are not considered a concern.

The subject property was not identified on any of the above-referenced databases researched.

3.4 Regulatory Agency Review

3.4.1 Deer Springs Fire Protection District

EEI contact the Deer Springs Fire Protection District (DSFPD) for information pertaining to hazardous waste releases, spills, incident, and/or inspection reports for the subject property. According to staff, the DSFPD does not hold records related to hazardous releases, spills, or UST permits and referred EEI to the County of San Diego Department of Environmental Health (see below). A search by personnel for incident or inspection reports related to the subject property revealed no records on file.

3.4.2 County of San Diego Department of Environmental Health

Due to the absence of development on the subject property, and therefore, the lack of an associated address, as well as known land uses of the surrounding area, this information source was not researched as it was not deemed to be sufficiently useful.

3.4.3 State Water Resources Control Board

EEI reviewed the online database GeoTracker (2012), which provides records on LUSTs and Spills, Leaks, Investigation and Cleanup (SLIC) sites, which is maintained by the State Water Resources Control Board (SWRCB). The subject property was not listed on any of the databases researched. One adjacent and one nearby property were identified as closed LUST cases. The sites: **Castle Creek Country Club** (8797 Circle R Drive, located adjacent to the subject property on the south side of Circle R Drive, approximately 0.40 miles east of Old Highway 395), and **Circle R Ranch Trading Post** (8751 Old Castle Road, 0.40 miles south of the subject property), are discussed above in Section 3.3.2 LUST.

3.4.4 Department of Toxic Substances Control

EEI reviewed the online database EnviroStor (2012), which provides records on LUSTs, SLICs, Priority cleanup sites and states sites, which is maintained by the Department of Toxic Substances Control (DTSC). Neither the subject property nor any adjacent or nearby properties were listed on any of the databases researched.

3.4.5 Review of Division of Oil, Gas and Geothermal Resources Files

Oil and gas wells were not observed on the subject property during our subject property reconnaissance. A review of the California Division of Oil, Gas, and Geothermal Resources Website for oil and gas fields in California and Alaska (CDOGGR, 2012) indicated no petroleum exploration or production has occurred on or immediately adjacent to the subject property (identified as within Township 10S Range 02W Section 31, Township 10S Range 03W Section 36, and Township 11S Range 03W Section 1).

3.4.6 National Pipeline Mapping System

EEI reviewed the National Pipeline Mapping System (NPMS, 2012) public viewer website for gas transmission pipelines and hazardous liquid trunklines on or close to the subject property. According to the information reviewed, no pipelines are located on or in close proximity to the subject property.

3.5 Interview with Current Property Owner

Based on the nature of the subject property consisting of vacant land associated with a sewer easement, directive from the Client, and the fact that property owner information was not readily available, the property owner was not interviewed. Based on the information gathered from other readily available historical resources, including historic topographic maps, historic aerial photographs, and internet research, EEI does not consider the absence of this interview to effect the validity of this Phase I ESA.

3.6 User Provided Information

Pursuant to ASTM E1527-05, EEI provided a Phase I ESA User Specific Questionnaire to the “user” (the person on whose behalf the Phase I ESA is being conducted), in this case, Mr. Jon Rilling, with Accretive Investments, Inc., completed the questionnaire. The User Specific Information provided by Mr. Rilling is documented below. A copy of the user specific questions (per ASTM E1527-05) with Mr. Rilling’s associated responses is included in **Appendix E**.

3.6.1 Environmental Liens or Activity and Use Limitations

Mr. Rilling stated that he is not aware of any environmental liens, land use limitations, deed restrictions or governmental notifications relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property.

3.6.2 Specialized Knowledge

Mr. Rilling did not indicate that he had any specialized knowledge related to the subject property.

3.6.3 Valuation Reduction for Environmental Issues

Mr. Rilling stated that the subject property is road way easement property and land valuation is not applicable in this case.

3.6.4 Presence or Likely Presence of Contamination

Mr. Rilling indicated that he does not know of any specific issues related to past uses, specific chemicals, spills, releases, or cleanups which may have occurred on the property.

3.6.5 Other

Mr. Rilling noted that the Phase I ESA is required due to underwriting and county requirements related to county easement property. Mr. Rilling noted that he was not aware of any previous site investigation activities that have been conducted on the subject property.

3.7 Other Environmental Issues

3.7.1 Asbestos-Containing Materials

Asbestos, a natural fiber used in the manufacturing of a number of different building materials, has been identified as a human carcinogen. Most friable (i.e., easily broken or crushed) Asbestos-Containing Material (ACM) was banned in building materials by 1978. By 1989, most major manufacturers had voluntarily removed non-friable ACM (i.e., flooring, roofing, and mastics/sealants) from the market. These materials, however, were not banned completely.

In October 1995, the Federal Occupational Safety and Health Administration (OSHA) redefined the manner by which building materials are classified in regards to asbestos and the also the way these materials are to be handled. Under this ruling, “thermal system insulation and sprayed-on or troweled on or otherwise applied surfacing materials” applied before 1980 are considered presumed asbestos containing materials (PACM). Other building materials such as “floor or ceiling tiles, siding, roofing, transite panels” (i.e., non-friable) are also considered PACM unless tested.

An ACM survey was not conducted at the subject property as part of this Phase I ESA. The subject property consists of vacant land associated with a sewer easement. Based on this information, the presence of Asbestos-Containing Materials is not considered likely.

3.7.2 Lead-Based Paint

Lead-Based Paint (LBP) is identified by OSHA, the Environmental Protection Agency (EPA) and the Department Housing and Urban Development Department (HUD) as being a potential health risk to humans, particularly children, based upon its effects to the central nervous system, kidneys, and bloodstream. The risk of lead-based paint has been classified by HUD based upon the age and condition of the painted surface. This classification includes the following:

- maximum risk is from paint applied before 1950;
- a severe risk is present from paint applied before 1960;
- a moderate risk is present from paint applied before 1970;
- a slight risk is present from paint applied before 1977; and
- paint applied after 1977 is not expected to contain lead.

The subject property consists of vacant land associated with a sewer easement. Based on this information, the presence of Lead-Based Paint is not considered likely.

3.7.3 Radon

Radon is a radioactive gas which has been identified as a human carcinogen. Radon gas is typically associated with fine-grained rock and soil, and results from the radioactive decay of radium. The U.S. EPA recommends that homeowners in areas with radon screening levels greater than 4 Picocuries per liter (pCi/L) conduct mitigation of radon gas to reduce exposure.

Sections 307 and 309 of the Indoor Radon Abatement Act of 1988 (IRAA) directed the U.S. EPA to list and identify areas of the U.S. with the potential for elevated indoor radon levels. U.S. EPA's Map of Radon Zones (EPA-402-R-93-071) assigns each of the 3,141 counties in the US to one of three zones based on radon potential:

- Zone 1 counties have a predicted average indoor radon screening level greater than 4 pCi/L.
- Zone 2 counties have a predicted average indoor radon screening level between 2 and 4 pCi/L.
- Zone 3 counties have a predicted average indoor radon screening level less than 2 pCi/L.

Based on such factors as indoor radon measurements; geology; aerial radioactivity; and soil permeability, the U.S. EPA has identified the County of San Diego as Zone 3 (i.e., a predicted average indoor radon screening level less than 2 pCi/L). EEI does not consider radon as a significant environmental concern at this time.

3.7.4 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCB's) are used in electrical equipment, particularly in capacitors and transformers, because they are electrically nonconductive and stable at high temperatures. PCB's persist in the environment, accumulate in organisms, and concentrate in the food chain.

The disposal of these compounds is regulated under the Toxic Substances Control Act, which banned the manufacture and distribution of PCB's. By Federal definition, PCB equipment contains 500 parts per million (ppm) or more of PCB's, where PCB-contaminated equipment contains PCB concentrations greater than 50 ppm but less than 500 ppm. The US Environmental Protection Agency (EPA), under TSCA guidance, regulates the removal and disposal of all sources of PCB's containing 50 ppm or more.

Any electrical equipment containing dielectric insulating fluids or coolants, manufactured prior to 1976, should be considered as potentially PCB-containing. This includes transformers, capacitors, and fluorescent light fittings. In addition, PCB's may also be found as a stabilizer in older lubricating oils, pesticide extenders, cutting oils, hydraulic fluids, paints, sealants, and flame retardants (UNEP, 1999).

Overhead power lines were observed along Circle R Drive and Mountain Ridge Road. Pole mounted transformers were observed at a number of locations. The electrical transformers appeared to be in good operating condition and no signs of leaking were noted. Based on our experience with similar sites surrounding the subject property and San Diego County, PCB containing pole-mounted transformers is unlikely; therefore, is not considered an environmental concern at this time.

4.0 SUBJECT PROPERTY RECONNAISSANCE

4.1 Purpose

The purpose of our subject property reconnaissance was to visually and physically observe the subject property, structures, and adjoining properties for conditions indicating an existing release, past release, or threatened release of any hazardous materials/substances or petroleum products into structures on the subject property, or into soil and/or groundwater beneath the subject property. This would include any evidence of contamination, distressed vegetation, petroleum-hydrocarbon surface staining, waste drums, ASTs/USTs, illegal dumping, or improper waste storage/handling. Detailed information is provided in the text below.

4.2 Subject Property

On July 9, 2012, EEI personnel conducted a site reconnaissance to visually observe the subject site and adjoining properties for conditions indicating a potential recognized environmental concern. Visual conditions present during the site reconnaissance are documented in the Photographic Log (**Appendix F**), and summarized in **Table 2**.

Overall, the subject project is situated in northern San Diego County, north of the City of Escondido and southeast of the community of Bonsall. Portions of the subject project appear to be situated within the community of Valley Center. The subject project consists of a 2.5-mile section which follows Mountain Ridge Road southward to Circle R Drive, and follows Circle R Drive to the existing Lower Moosa Canyon WRF. Pavement on Circle R Drive consists of asphaltic concrete. Concrete sidewalks and driveway approaches, as well as concrete curb and gutters exist along the south edge of the roadway from Old Highway 395, east to the easterly edge of the Circle R Ranch. Along this section, an asphalt curb was observed along the north edge of Circle R Drive, with occasional concrete paved drainage swales and storm drain curb inlets intersecting the roadway. Generally, curbs were not detected along Circle R Drive east of the Castle Creek Country Club and Circle R Ranch developments. Overall, small, very minor weathered surface soil discoloration was detected at a few locations along the un-paved shoulders of Circle R Drive as a whole. Based upon our experience, this staining does not represent a recognized environmental concern.

Deer Springs Fire District Station Number 1 (8709 Circle R Drive) was observed at the southeast corner of Circle R Drive and Old Highway 395. Lower Moosa Canyon Water Reclamation Facility (8711 Circle R Drive) is situated directly east of the fire station. With the exception of a small citrus grove located south of the northern intersection of Circle R Drive and El Camino De Pinos, undeveloped land mantled with native brush is situated adjacent to the northerly edge of Circle R Drive. Overall, this vacant land is topographically higher in elevation than the roadway. As noted previously, residential developments (i.e., Castle Creek Country Club and Resort, and Circle R Ranch) are located along the southern edge of Circle R Drive, comprising roughly 3,200 linear feet of roadway east of the water reclamation facility.

A mixture of rural residential and orchards comprise the land adjacent to Circle R Drive, from the northern intersection with El Camino De Pinos east to Mountain Ridge Road. Corrugated metal pipe (CMP) storm drains were observed crossing under Circle R Drive at various natural drainages. A mixture of rural residential and orchards comprise the land adjacent to the proposed project area along Mountain Ridge Road, from Circle R Drive north roughly 1,900 feet.

Utilities observed within the paved roadway and along the street edges were observed to consist of Valley Center Municipal Water District water lines (and associated hydrants, backflow preventors, blow off valves, valve clusters in the pavements and laterals), AT&T manholes, above ground power poles with transformers, and buried SDG&E vaults, as well as concrete- and asphalt-paved drainage swales.

Overhead power lines were observed along Circle R Drive and Mountain Ridge Road. Pole mounted transformers were observed at a number of locations. The electrical transformers appeared to be in good operating condition and no signs of leaking were noted.

EEI personnel conducted a reconnaissance of the property by traversing the property from north to south then east to west to physically observe the property and adjoining properties for conditions indicating a potential recognized environmental concern. Concerns would include any evidence of contamination, distressed vegetation, petroleum-hydrocarbon staining, waste drums, illegal dumping, or improper waste storage and/or handling. Minor localized wind-blow trash, including glass and plastic, was noted along the edges of the roadways. No evidence of *recognized environmental conditions* was noted on the subject property during our subject property reconnaissance efforts.

TABLE 2 Summary of Subject Property Reconnaissance		
Item	Concerns	Comments
General Housekeeping	No	Minor wind-blown trash/debris observed onsite.
Surface Spills	No	None observed.
Stained Surfaces	No	A few small, very minor and weathered areas of petroleum staining (?) were observed along the unpaved shoulders.
Fill Materials	No	Minor road fills.
Pits/Ponds/Lagoons	No	None observed on circle R Drive. Small pond observed along southeasterly side of Mountain Ridge Road
Surface Impoundments	No	None observed.
ASTs/USTs	No	Generally, none observed. One large propane tank noted near 30911 Mountain Ridge Road
Distressed Vegetation	No	None observed.
Wetlands	No	None observed.
Electrical Substations	No	None observed. SDG&E vaults were noted near on southerly edge of Circle R Drive, associated with Circle R Ranch and Castle Creek Resort.
Areas of Dumping	No	Significant piles of trash and debris were not observed on the subject property.
Transformers	No	Pole-mounted transformers appearing to be in good condition were detectable within the subject property limits.
Waste/Scrap Storage	No	None observed.
Chemical Use/Storage	No	None observed; however, restricted agricultural chemical residues may exist along the shoulder of roadways due to runoff from adjacent orchards.

4.3 Adjacent Properties

On July 9, 2012, EEI conducted a visual and auto reconnaissance of the adjoining neighborhoods (to the extent practical) to evaluate the potential for offsite impacts that may affect the subject property. These would include evidence of chemical storage or usage, surface staining or leakage, distressed vegetation, or evidence of illegal dumping.

In general, the subject property is surrounded by undeveloped land immediately north and east of Old Highway 395. Deer Springs Fire Protection Station Number 1 and Lower Moosa Canyon Water Reclamation Facility exist along the southern side of Circle R Drive, comprising roughly 1,000 feet of roadway east of Old Highway 395. Both of these facilities were reported as having environmental related issues on the databases researched and reported above in **Section 3.2 State and Regional Sources**.

Circle R Ranch and Castle Creek Resort are developed along the southern edge of Circle R Drive east of the water reclamation facility. Rural residential and agricultural development (i.e., irrigated groves) was observed along both side of the subject roadway, east of the northern intersection of Circle R Drive and El Camino De Pinos. Fencing limited access to the grove sites along both Circle R Drive and Mountain Ridge Road. Generally, immediately adjacent properties were not identified as having environmental related issues on any of the databases researched and reported herein. The grove sites may be considered as an environmental concern at this time only due to the usage of pesticides/herbicides that may have created soil residues from runoff impacting the proposed project. No service stations and dry cleaners were located in the immediate vicinity.

5.0 FINDINGS AND OPINIONS

Based on the information obtained in this ESA, EEI has the following findings and opinions:

- Known or suspected RECs – No known or suspected RECs have been identified during the preparation of this ESA:
- Historical REC's – No historical REC's have been revealed during the preparation of this ESA.
- *De Minimis* Conditions – No de minimis conditions have been revealed during the preparation of this ESA.

6.0 DATA GAPS AND DEVIATIONS FROM ASTM PRACTICES

Section 3.2.20 (ASTM 1527-05) defines a data gap as “a lack or inability to obtain information required by the practice despite good faith efforts of the environmental professional to gather such information.”

6.1 Historical Data Gaps

Based on the information obtained during the course of this investigation, the following historical data gaps were encountered.

Specific Gaps

Information regarding the current and past owners of the subject property was not readily available; therefore, this historical source was not researched.

Resolution Efforts

EEI researched historic topographic maps, historic aerial photographs, and internet research to supplement historical information.

Opinions on Data Gap Significance

Based on the information gathered from readily available sources, EEI does not consider the absence of this interview to effect the validity of this Phase I ESA.

6.2 Regulatory Data Gaps

No regulatory data gaps were identified during our research efforts.

6.3 On-site Data Gaps

No on-site data gaps were identified during our research efforts.

6.4 Deviations from ASTM Practices

Section 12.10 (ASTM 1527-05), states that all deletions and deviations from this practice shall be listed individually and in detail, including Client imposed constraints, and all additions should be listed.

EEI believes that there are no exceptions to, or deletions from, the ASTM Designation E1527-05 Guidelines.

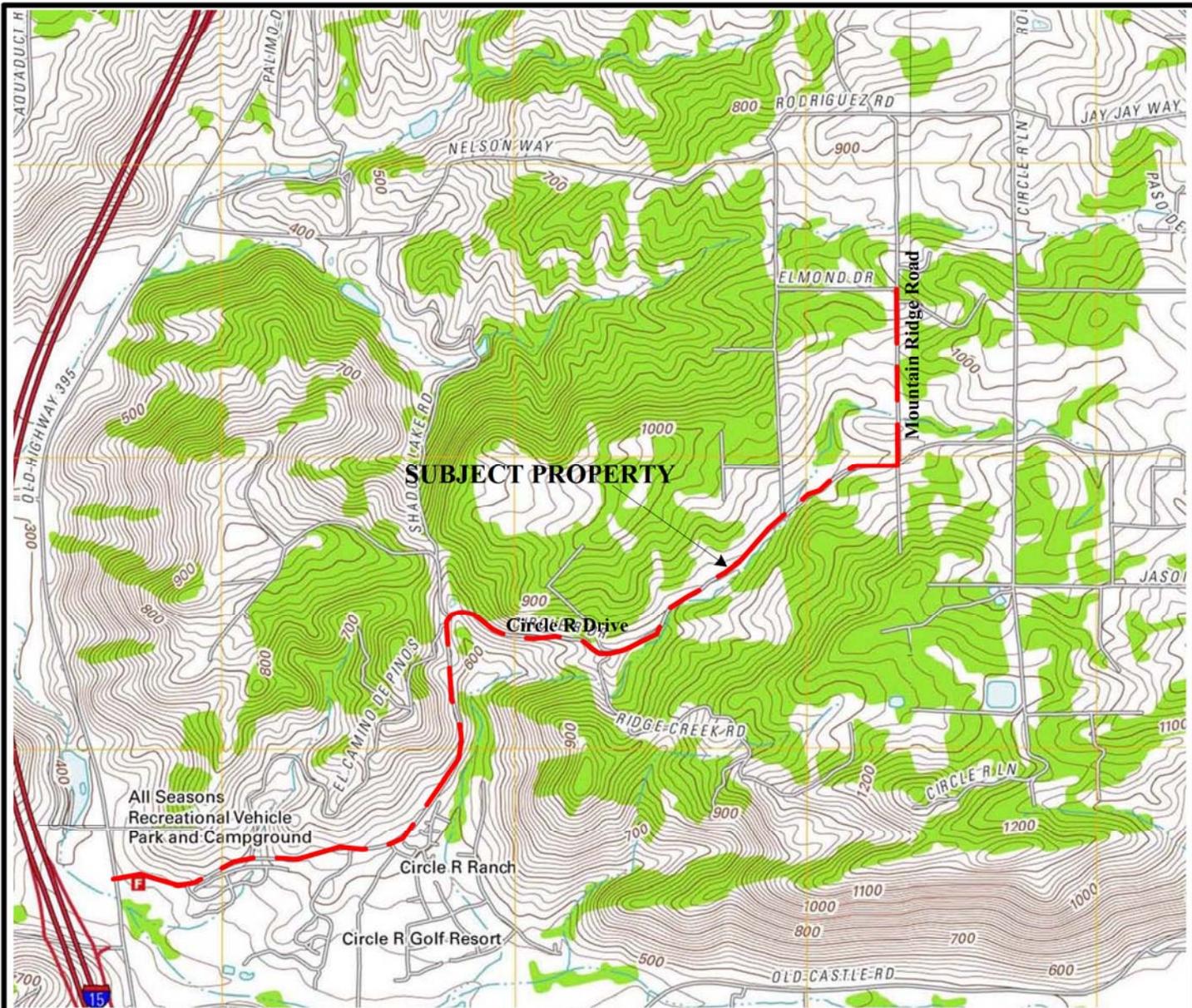
7.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of ASTM Designation E1527-05 for the subject property identified as the Lilac Hills Master Planned Community Offsite Sewer Easement Property, located along portions of Mountain Ridge Road, and Circle R Drive, Escondido, California. Any exceptions to, or deletions from, this practice are described in Section 6.0 of this report. This Phase I ESA has revealed no evidence of *recognized environmental conditions* in connection with the property.

8.0 REFERENCES

- California Department of Water Resources, Water Data Library (WDL), Website (<http://www.water.ca.gov/waterdatalibrary>), accessed July 2012.
- California Division of Oil, Gas, and Geothermal Resources (CDOGGR) Website (<http://maps.conservation.ca.gov/doms/index.html>), accessed July 2012.
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- County of San Diego Land Use and Environmental Group (LUEG), KIVA, Website (<http://landinfo.sdcountry.ca.gov/permit/index.cfm>), accessed July 2012.
- Department of Toxic Substances (DTSC), Website (<http://www.envirostor.dtsc.ca.gov/public/>), EnviroStor database, accessed July 2012.
- Federal Emergency Management Act (FEMA), Flood Insurance Rate Map (FIRM), Website <http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1> accessed February 2012.
- Los Angeles County Public Library (LAPL), Sanborn Maps 1867-1970, Website <http://databases.lapl.org/#s>, accessed July 2012.
- National Pipeline Mapping System (NPMS), Public Map Viewer Website, (<https://www.npms.phmsa.dot.gov/PublicViewer/>), accessed July 2012.
- San Diego Geographic Information Source, (SanGIS), Website, (<http://files.sangis.org/interactive/viewer/viewer.asp>), accessed July 2012.
- San Diego Regional Water Quality Control Board (SDRWQCB), 1994, “Water Quality Control Plan for the San Diego Basin (9),” dated September 8.
- State Water Resources Control Board, Website, GeoTracker database, (<http://www.geotracker.swrcb.ca.gov/>), accessed July 2012.
- Tan, Siang S., 2000, Geologic Map of the Bonsall 7.5’ Quadrangle, San Diego County, California, A Digital Database, (1:24,000), California Division of Mines and Geology (CDMG) in cooperation with the United States Geological Survey (USGS).
- United Nations Environmental Programme, 1999, Guidelines for the Identification of PCBs and Materials Containing PCBs.
- United States Department of Agriculture (USDA), Natural Resources Conservation Service, Website (<http://websoilsurvey.nrcs.usda.gov/app/>) Web Soil Survey, accessed July 2012.
- United States Geological Survey (USGS, 2012), Bonsall, 7.5-Minute Quadrangle.

FIGURES



Map Source: USGS, Bonsall, California 7.5 Minute Quadrangle map (USGS, 2012)



Scale: 1" = 1,600'



Note All Locations Are Approximate

SITE LOCATION MAP

ACCRETIVE INVESTMENTS, INC.

Lilac Hills Ranch

Offsite Sewer Easement Property

Mountain Ridge Road and Circle R Drive

Escondido, California 92026

EEI Project Number ACR-71497.2c

Created July 2012



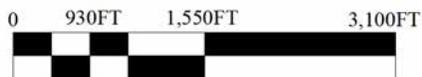
FIGURE 1



Map Source: Google Earth®, August 23, 2010



Scale: 1" = 1,550'



Note All Locations Are Approximate

AERIAL SITE MAP
 ACCRETIVE INVESTMENTS, INC.
 Lilac Hills Ranch
 Offsite Sewer Easement Property
 Mountain Ridge Road and Circle R Drive
 Escondido, California 92026
 EEI Project Number ACR-71497.2c
 Created July 2012



FIGURE 2

**APPENDIX A
RESUME OF ENVIRONMENTAL PROFESSIONAL**



Polly Ivers

Project Scientist

HIGHLIGHTS OF QUALIFICATIONS

- Experienced in project management duties for conducting field research, data collection, inventory, analyses and report development in the Environmental Science industry.
- Knowledgeable of environmental compliance and regulations and technical writing specifications for environmental documentation and regulatory reporting.
- Excellent communication and interpersonal skills. Diplomatic and experienced in working with diverse populations including the public, colleagues, clients and agency representatives.
- Strong analytical, detail-oriented, organizational, and verbal/written communication skills.
- Proficient in MS Office, MS Visio, CADD, ArcGIS 9.1, Adobe Acrobat and internet research.

EDUCATION

UNIVERSITY OF COLORADO, Boulder, CO B.S. Biology 1987
WETLANDS TRAINING INSTITUTE, San Diego, CA 2004
UNIVERSITY OF UTAH, Salt Lake City, UT GIS/Environmental Science Coursework 2002 - 2010

PROFESSIONAL EXPERIENCE

EEI, INC., (*Geotechnical and Environmental Solutions*), Carlsbad, CA 2004 - Present

Environmental Project Scientist (4/05 - Present)

- Oversee the execution and management of Phase I Environmental Site Assessments (ESA) for over 200+ sites in California, Nevada, and Arizona.
- Direct Phase II limited site investigations, including Soil and Agricultural Chemical Surveys (drilling, sampling, and monitoring). Supervised small field crews on key client projects.
- Assisted with Biological Assessment reports and Wetland Delineation Surveys.
- Manage budgets ensuring fiscal responsibility on each project.
- Supervise and mentor two staff members in daily duties and perform yearly peer reviews.
- Write ESA reports based on researched technical data. Edit and review co-worker reports.
- Contributed compliance documents for Environmental Impact Reports (under NEPA and CEQA regulation) and Storm Water Pollution Prevention Plans (SWPPP).

Environmental Staff Scientist (3/04 - 3/05)

- Worked closely with Project Managers: conducted field visits to project sites for evaluation; used topographic maps, aerial photographs, GPS units, and scientific tools and equipment; attended meetings; and managed project files and database.

CERTIFICATIONS

40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPPER)

**APPENDIX B
COUNTY SEWER ROUTE PROFILE MAP**

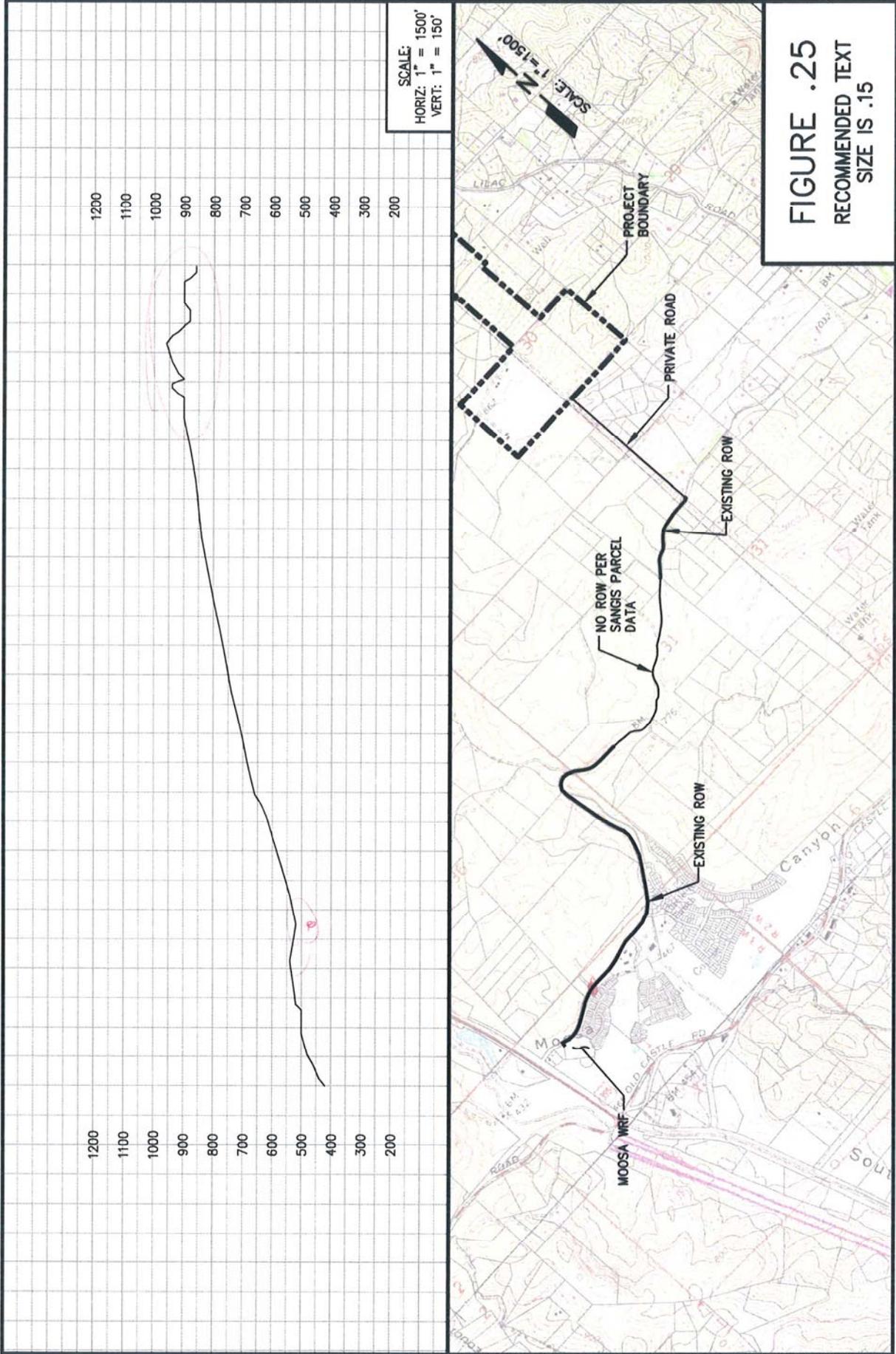
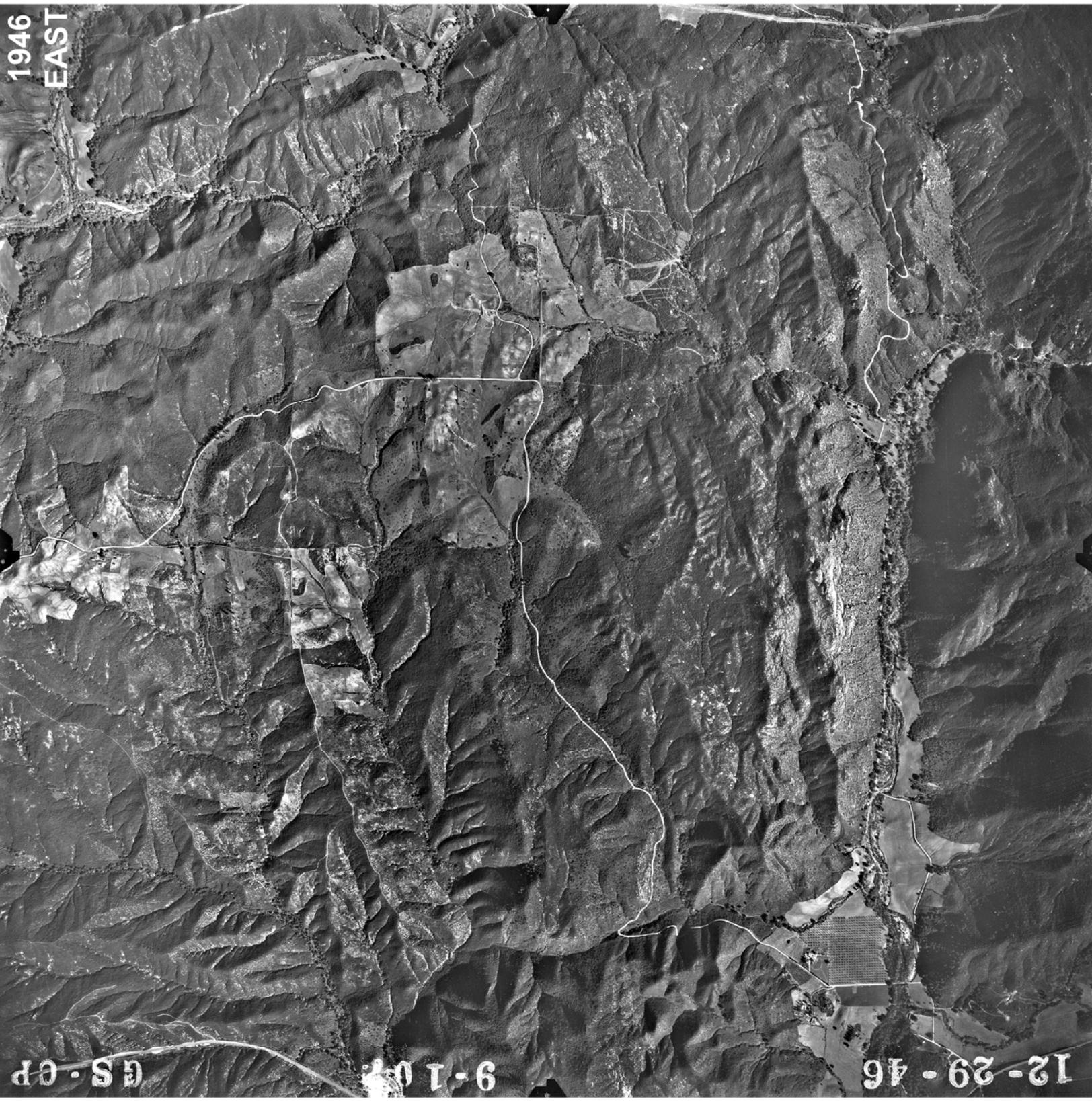


FIGURE .25
RECOMMENDED TEXT
SIZE IS .15

**APPENDIX C
HISTORICAL AERIAL PHOTOGRAPHS/TOPOGRAPHIC MAPS**

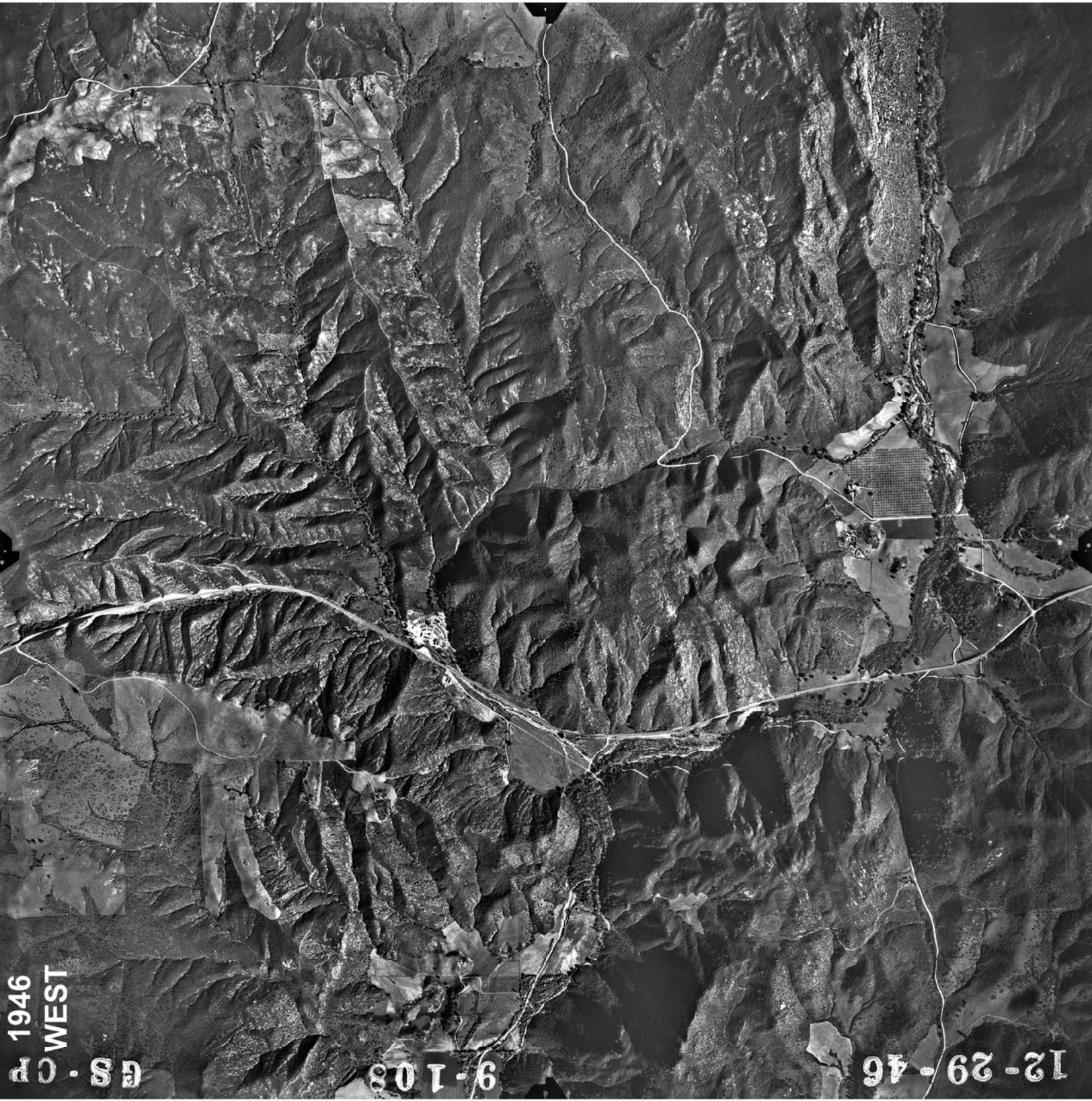


1946
EAST

GS-OP

9-107

12-29-46



1946
WEST
GS - CP

9-108

12-29-46