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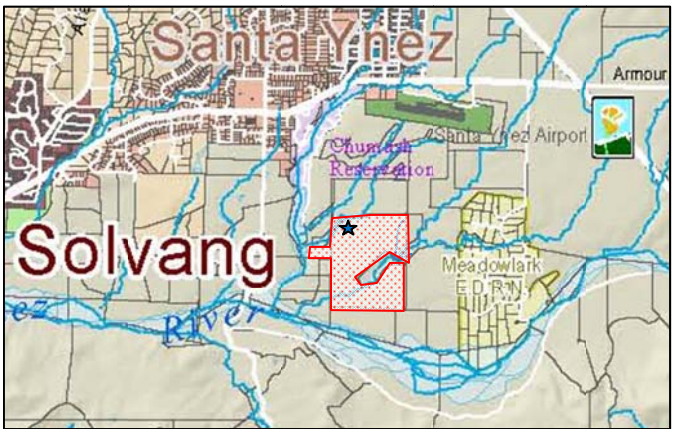
Draft Mitigated Negative Declaration 19NGD-00000-00007

Sanja Cota
Frost Protection Reservoir No. 2
18CUP-00000-00028

May 30, 2019



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1.0 REQUEST/PROJECT DESCRIPTION

A request of Brett Jones, agent for The Wine Group, LLC, owner, to consider Case No. 18CUP-00000-00028 for approval of a Minor Conditional Use Permit to allow the construction and operation of a water storage reservoir on a 237-acre parcel (APN 141-440-017). The reservoir would be used to provide frost protection and irrigation water for approximately 300 acres of vineyards located on the project parcel and on Assessor Parcels 141-440-011, -16, - and -30. A project-related soil stockpile would be located approximately 150 feet south of the reservoir, also on Assessor Parcel 141-440-017. A temporary construction staging area would be located on Assessor Parcel 141-440-011. The project would be located at 222 Refugio Road, in the Santa Ynez area, Third Supervisorial District.

The proposed reservoir would have a water storage capacity of 41 acre feet, a maximum water depth of 20 feet, and a water surface area of 2.64 acres. Grading for the construction of the reservoir would occur on approximately 4.4 acres. Water to be stored in the reservoir would be supplied by two existing Santa Ynez River Water Conservation District agricultural water meters, and an existing agricultural well. The existing water meters and water well are located on Assessor Parcel 141-440-017. Water from each of the water meters and the well would be conveyed to the proposed reservoir by existing vineyard irrigation pipelines, and water that is stored in the reservoir would be distributed using existing irrigation pipelines. The existing water delivery pipelines and frost protection water distribution pipelines would be connected to the reservoir at a new pump station to be located near the southwestern corner of the reservoir. The pump station would be located on a proposed 900 square foot concrete pad.

Frost protection would generally be required during the months of February, March and April, and the reservoir would be maintained at a full condition during those months. Between May and January water levels would be maintained at approximately one-third of the reservoir's storage capacity, and the stored water would be used for the operation of the vineyard's drip irrigation system.

Approximately 36,475 cubic yards of cut and 29,127 cubic yards of fill would be required to construct the reservoir. The excavated soil would be used to construct the proposed reservoir's water impoundment berms, which would have a maximum height of 15 feet above surrounding grade and a 2.5:1 (H:V) gradient. The excess soil (approximately 7,348 cubic yards) would be placed in the proposed stockpile. The stockpile would be located approximately 150 feet south of the reservoir, cover an area of approximately 50,600 square feet (1.1 acres), have a maximum height of four feet, and would have side slopes that do not exceed 4(h):1(v).

The proposed reservoir would be lined with a 40-mil thick high-density polyethylene plastic liner to prevent water infiltration. An emergency overflow discharge system would be constructed to prevent stored water from overtopping the reservoir. The overflow system would discharge to a rip-rap apron located near the northwest corner of the reservoir. An eight-foot tall, wire mesh fence would be installed around the perimeter of the reservoir to exclude deer and other animals from entering the reservoir. A sloped bench would be constructed around the interior perimeter of the reservoir, and 11 evenly spaced safety ladders would be installed to prevent accidental human and animal drowning.

Storm water runoff that currently flows through the proposed reservoir site would be intercepted by a proposed grass-lined swale to be located along the south, east and west sides of the reservoir. The V-shaped swale would be approximately 1.25 feet deep and approximately six feet wide at top. The swale would have the capacity to convey runoff generated by a 100-year storm and would discharge to the emergency overflow outlet rip-rap apron, and an additional apron located near the northeast corner of the

reservoir. After being discharged across the rip-rap energy dissipating aprons, the water would sheet flow northward similar to existing conditions.

A temporary construction equipment and vehicle staging area approximately 2,500 square feet in size would be used during the construction of the reservoir. The staging area would be approximately 200 feet southwest of the reservoir site, located on the southeast corner of Assessor Parcel 141-440-011.

During the construction of the proposed reservoir and soil stockpile a variety of erosion control best management practices would be implemented, including the use of silt fences and fiber rolls. After construction and prior to the start of the rainy season, the proposed soil stockpile, reservoir exterior side slopes, and other areas disturbed by project-related construction would be revegetated using a grass seed mix.

Regional access to the project area is provided by State Route 246. Access to the project site from SR 246 is from an existing road that extends southward from the Santa Ynez Airport, and along existing dirt vineyard roads. Access to the project site from SR 246 is also available from North Refugio Road. A new dirt access road would be constructed around the perimeter of the reservoir.

If needed, mosquito control at the reservoir site a licensed aquatic pest control company would be used to implement pest control methods. Biological controls would be implemented prior to the use of chemical treatments. All project-related mosquito control methods would comply with Santa Barbara County Vector Control District requirements and standards.

The proposed project plans are provided as Attachment 1.

2.0 PROJECT LOCATION

The project site is located at 222 Refugio Road, approximately 1.1 miles south of the Santa Ynez Airport, and approximately 1.5 miles south of State Route 246 and the community of Santa Ynez. The proposed reservoir would be located approximately 3,000 feet north of Refugio Road. The project site is in the Third Supervisorial District.

2.1 Site Information	
Comprehensive Plan Designation	Rural Area; Agricultural Commercial (AC). The project site is located within the boundaries of the Santa Ynez Valley Community Plan.
Zoning District, Ordinance	Land Use and Development Code, AG-II-100, Agriculture, 1 unit per 100 acres.
Site Size	The proposed reservoir and associated soil stockpile would be located near the northwestern corner of a 237-acre parcel (APN 141-440-017).
Present Use & Development	The proposed reservoir and soil stockpile sites are vacant and have been prepared for planting grape vines. The project parcel has been farmed with irrigated row crops in the past.
Surrounding Uses / Zoning	North: Agriculture / AG-II-100. Residences on the Chumash Indian Reservation are approximately 2,800 feet northwest of the project site. South: Agriculture / AG-II-100. The Santa Ynez River is approximately 3,500 feet south of the project site. East: Agriculture / AG-II-100. Residences in the Meadowlark Existing

2.1 Site Information	
	Developed Residential Neighborhood are approximately 5,000 feet east of the project site. West: Agriculture / AG-II-100. Zanja de Cota Creek is approximately 1,200 feet west of the project site. Scattered residences are located west of the creek and along North Refugio Road. The nearest residence is approximately 2,600 feet southwest of the project site.
Access	There are two routes that provide access to the project site. The project site can be access from SR 246 by traveling approximately 900 feet south on Airport Road; approximately 4,600 feet along paved and dirt roads that are adjacent to the Santa Ynez Airport property; then southward on dirt vineyard roads. A recorded access easement between Gainey Vineyard and the project applicant allows access along the roads that are adjacent to the Airport property. The project site can also be accessed from SR 246 by traveling south and then east on North Refugio Road.

3.0 ENVIRONMENTAL SETTING

3.1 PHYSICAL SETTING

The proposed reservoir and associated soil stockpile would be located on a 237-acre parcel that is north of North Refugio Road. A proposed temporary construction staging area would be on a 252-acre parcel that is west of and adjacent to the project site. The parcels that would be used for the construction of the reservoir, staging area and soil stockpile (the project site) have historically been used for cattle grazing or irrigated row crops, and were recently prepared for planting grape vines.

Zanja de Cota Creek is approximately 1,200 feet west of the proposed reservoir site. A small ephemeral tributary to Zanja de Cota Creek is located approximately 400 feet northwest of the project site, and another ephemeral tributary is approximately 1,500 feet southeast of the reservoir site. Zanja de Cota Creek drains to the Santa Ynez River, which is approximately 3,500 feet south of the reservoir site.

The proposed reservoir would be located north of and adjacent to a 60-foot wide easement granted to the Central Coast Water Authority. The easement is for the construction and operation of an underground water pipeline.

Slope/Topography. The project site is level and slopes gently to the north. Elevations along the southern portion of the reservoir site are approximately 540 feet above sea level, and the northern portion of the site has an elevation of approximately 535 feet. A slope that is approximately 60 feet in height and that slopes downward to the ephemeral drainage northwest of the project site is approximately 200 feet northwest of the proposed reservoir footprint. The proposed soil stockpile would be located approximately 150 feet south of the reservoir on a level site that has an elevation of approximately 545 feet.

Flora/Fauna. Flora and fauna conditions at and near the project site are described in a report titled *Biological Resources Assessment for the LTC-Ranch Sanja Cota Vineyard Reservoir Project, Santa Ynez Valley, Santa Barbara County, California*, (Kevin Merk Associates, September 19, 2018, Attachment 2). The proposed reservoir and soil stockpile sites are located on disturbed agricultural lands with very little

vegetation cover. Vegetation on the site consists mostly of non-native weeds. An area of annual grassland is located approximately 50 feet from the northwest corner of the reservoir site. The grassland consists of dense non-native grasses. No oak trees are located on or adjacent to the project site. Oak trees closest to the project site are located adjacent to the small ephemeral that is northwest of the reservoir site. Sensitive habitat in the project area includes freshwater forested/shrub wetland, freshwater emergent wetland, and freshwater pond habitat associated with Zanja de Cota Creek. No sensitive plant or animal species were observed on the project site, however, 12 special status plant species and 15 special-status animal species are known to exist within five miles of the site. The project site is located approximately 1.25 miles west of designated critical habitat for the federally threatened vernal pool fairy shrimp. No suitable habitat for this species was observed on the project site. Critical habitat for the federally endangered southern California steelhead and federally threatened California red-legged frog does not exist on the project site.

Archaeological Sites. The results of an archaeological resource survey conducted on the project site is described in a report titled *Cultural Resources Survey of the Ranch Sanja Cota Vineyard Reservoirs Project, 222 Refugio Road, Santa Ynez, Santa Barbara County, California* (January, 2019). The Phase 1 investigation included a survey of the proposed reservoir, staging, and soil stockpile sites. The Phase 1 survey did not identify any archaeological resources within the proposed project site boundaries. Recorded archaeological site CA-SBA-2723 is located in the vicinity of the proposed reservoir site.

Soils: Two soil types have been identified at the project site. The majority of the site is covered by the Positas fine sandy loam (2 to 9 percent slopes). This soil has land capability classifications of 3e and 4e. The Ballard fine sandy loam (2 to 9 percent slopes) is located on a small portion of the southwest corner of the project site. This soil has land capability classifications of 2e and 3e.

Cumulative Development. Two additional development projects have been proposed by the project applicant and are related to the proposed reservoir project.

- **Conditional Use Permit 18CUP-00000-00027** (Sanja Cota Frost Protection Reservoir No. 1) proposes to construct an additional frost protection reservoir approximately 4,000 feet southeast of the proposed project site on Assessor Parcel 141-440-031. This proposed reservoir would have the capacity to contain approximately 48 acre feet of water. This project application is being processed concurrently with the proposed project (18CUP-00000-00028).

- **Land Use Permit 18LUP-00000-00434** proposes to make improvements to the existing reservoir access road that extends southward from the Santa Ynez Airport and provides access to the reservoir project site. The road improvements have been proposed primarily to serve existing farm worker dwellings located on APN 141-440-024 and are not required to serve the proposed reservoir project. This project application has been deemed to be incomplete.

3.2 ENVIRONMENTAL BASELINE

The environmental baseline from which the project's impacts are measured consists of the on the ground conditions described above.

4.0 POTENTIALLY SIGNIFICANT EFFECTS CHECKLIST

The following checklist indicates the potential level of impact and is defined as follows:

Potentially Significant Impact: A fair argument can be made, based on the substantial evidence in the file, that an effect may be significant.

Less Than Significant Impact with Mitigation: Incorporation of mitigation measures has reduced an effect from a Potentially Significant Impact to a Less Than Significant Impact.

Less Than Significant Impact: An impact is considered adverse but does not trigger a significance threshold.

No Impact: There is adequate support that the referenced information sources show that the impact does not apply to the subject project.

Reviewed Under Previous Document. The analysis contained in a previously adopted/certified environmental document addresses this issue adequately for use in the current case and is summarized in the discussion below. The discussion should include reference to the previous documents, a citation of the page(s) where the information is found, and identification of mitigation measures incorporated from the previous documents.

4.1 AESTHETICS/VISUAL RESOURCES

Will the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. The obstruction of any scenic vista or view open to the public or the creation of an aesthetically offensive site open to public view?			X		
b. Change to the visual character of an area?			X		
c. Glare or night lighting which may affect adjoining areas?			X		
d. Visually incompatible structures?			X		

Setting

Physical

There are no structures located at or adjacent to the proposed reservoir, staging area, and soil stockpile sites. The project site is generally level, and is a tilled agricultural field that supports sparse, non-native vegetation. Residences closest to the project site include the Meadowlark Existing Developed Residential Neighborhood, approximately 5,000 feet to the east; scattered houses located west of Zanja de Cota Creek, a minimum of approximately 2,600 feet to the west; and houses on the Chumash Indian Reservation, which are approximately 2,800 feet to the northwest and also located on the west side of Zanja de Cota Creek. Roads in the vicinity of the project site that may be used by the public include SR 246, approximately 1.5 miles to the north; and North Refugio Road, approximately 3,000 feet to the south

Regulatory

County Environmental Thresholds. The County's Visual Aesthetics Impact Guidelines classify coastal and mountainous areas, the urban fringe, and travel corridors as "especially important" visual resources. A project may have the potential to create a significantly adverse aesthetic impact if (among other potential effects) it would impact important visual resources, obstruct public views, remove significant amounts of vegetation, substantially alter the natural character of the landscape, or involve extensive grading visible from public areas. The guidelines address public, not private views.

Impact Discussion

(a-d) Less than significant. The proposed reservoir would be constructed by excavating soil below existing grade and using the excavated soil to construct berms that would impound stored water. The height of the water impoundment berms would vary but would not exceed 15 feet above the adjacent ground surface. The proposed soil stockpile would be used to store excess soil and would have a maximum height of approximately four feet. Construction of the reservoir and soil stockpile would not result in the removal of a substantial amount of vegetation, as the only vegetation that would be removed is scattered non-native weeds. An approved erosion control grass seed mix would be applied to the exterior slopes of the proposed reservoir and soil stockpile. The proposed water pipelines that would connect the reservoir to existing irrigation water pipelines would be below ground and not visible.

Due to distance, intervening topography, and vegetation along Zanja de Cota Creek, the proposed reservoir and soil stockpile would not be visible from residences located in the Meadowlark residential neighborhood, or residences located west of the creek. In addition, the project would not be visible from North Refugio Road or SR 246. The reservoir and soil stockpiles would not substantially alter the existing topography of the project site and would not result in the removal of a substantial amount of vegetation. Erosion control grass seeds would be applied to the proposed reservoir berms and soil stockpile, which would be visually compatible with the appearance of the nearby vineyard and non-native grassland located northwest of the reservoir site. Construction equipment and material that would be stored in the staging area southwest of the reservoir site would be removed at the conclusion of project construction. No nighttime lighting would be installed at the project site. Therefore, the project would not obstruct a scenic vista, substantially change the visual character of the project site, or result in development that is visually incompatible with nearby residential, open space, and agricultural uses. Therefore, the project's aesthetic/visual resource impacts would be less than significant.

Cumulative Impacts. Grading to construct proposed reservoir No. 2 would result in relatively minor alterations to the topography of the project site and would not be visible from nearby residential areas. The project would not result in the development of new buildings, would not remove a substantial amount of vegetation, and the appearance of the proposed reservoir and soil stockpile would be compatible with existing visual conditions at and near the project site. Therefore, the project would not result in cumulatively considerable changes to existing aesthetic/visual resource conditions at the project site. Proposed Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) would be approximately 4,000 feet southeast of the Reservoir No. 2 project site. Reservoir No. 1 would not be visible to residences located west of Zanja de Cota Creek, but may be visible from viewpoints in the Meadowlark neighborhood. Reservoir No. 1, however, would not result in significant change in existing visual conditions at that project site and the combined aesthetic impacts of both reservoir projects would not be significant. Proposed improvements to the existing access road that would serve Reservoir No. 1 and No. 2 (18LUP-00000-00434) would result in approximately 20,000 cubic yards of cut and fill along the 2.8-mile roadway. The minor

grading alterations would not substantially change existing visual conditions along the roadway corridor. Therefore, the proposed projects would result in less than significant cumulative aesthetic/visual resource impacts.

Mitigation and Residual Impact: The project's impacts would be less than significant and no mitigation is required.

4.2 AGRICULTURAL RESOURCES

Will the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Convert prime agricultural land to non-agricultural use, impair agricultural land productivity (whether prime or non-prime) or conflict with agricultural preserve programs?			X		
b. An effect upon any unique or other farmland of State or Local Importance?			X		

Background. Agricultural lands play a critical economic and environmental role in Santa Barbara County. Agriculture continues to be Santa Barbara County's major producing industry with a gross production value of almost $1.5 billion (Santa Barbara County 2014 Crop Production Report). In addition to the creation of food, jobs, and economic value, farmland provides valuable open space and maintains the County's rural character.

Physical. The 237-acre project parcel has been prepared to plant grape vines, and has been used for grazing and row crops in the past. . The proposed reservoir would provide frost protection and irrigation water for approximately 300 acres of vineyards. Two soil types have been identified on the proposed reservoir and soil stockpile sites, an area of approximately 5.5 acres. The Positas fine sandy loam is located on approximately 4.4 acres of the proposed development area and has capability classifications of 3e and 4e, which are not considered to be a "prime" agricultural soil. Ballard fine sandy loam soil is located primarily on the proposed soil stockpile site and covers approximately 1.1 acres of the proposed development area. This soil type has capability classifications of 2e and 3e. Soils with a classification of 2 are considered prime agricultural soil. The project parcel is subject to agricultural preserve contract 07-AP-037.

Regulatory

County Thresholds Manual**.** The County's Agricultural Resources Guidelines (approved by the Board of Supervisors, August 1993) provide a methodology for evaluating agricultural resources. These guidelines use a weighted point system to serve as a preliminary screening tool for determining significance. The tool assists planners in identifying whether a previously viable agricultural parcel could potentially be subdivided into parcels that are not considered viable after division. A project that would result in the loss or impairment of agricultural resources would result in a potentially significant impact. The proposed reservoir project does not include a land subdivision, nor would it impair agricultural uses located on the project parcel. Therefore, the weighted point system was not used for this analysis.

Impact Discussion

(a - b) Less than significant. The proposed reservoir would store water to be used for frost protection and would serve approximately 300 acres of grape vines located on the project parcel and three nearby parcels. Approximately 1.1 acres of the proposed soil stockpile would be located in an area that may contain prime agricultural soil, however, the stockpile would be an agricultural use that supports an irrigated agriculture operation, and the stockpile area could be used for agricultural operations in the future. The proposed construction staging area would temporarily remove a 2,500 square foot area from potential farming operations, however, farming could be resumed in the storage area after project-related construction activities are completed. The proposed project would not convert prime agricultural land to a non-agricultural use, or permanently impair agricultural land productivity. The project parcel is under an agricultural preserve contract. The proposed project was reviewed by the Agricultural Preserve Advisory Committee on November 2, 2018 and found to be compatible with the Uniform Rules for agricultural preserves (Attachment 3). Therefore, the project would not conflict with an agricultural preserve contract, and its impacts to agricultural resources would be less than significant.

Cumulative Impacts. Proposed Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) and an associated soil stockpile would remove approximately 5.6 acres of agricultural land from active crop production. Similar to the proposed Reservoir No. 2 project, Reservoir No. 1 would also serve approximately 300 acres of vineyards and would not convert agricultural soils to a non-agricultural use. Proposed improvements to the existing access road (18LUP-00000-00434) that would serve Reservoir No. 1 and No. 2 would not substantially increase the size of the existing road and would not remove any land from agricultural production. Both of the proposed reservoirs and the proposed road improvements would support the long-term use of the project sites for irrigated agriculture. Therefore, proposed cumulative development would not result in a cumulatively considerable loss of agricultural resources and potential cumulative impacts would be less than significant.

Mitigation and Residual Impact: The project's impacts would be less than significant and no mitigation is required.

4.3a AIR QUALITY

Will the proposal result in:	**Poten. Signif.**	**Less than Signif. with Mitigation**	**Less Than Signif.**	**No Impact**	**Reviewed Under Previous Document**
a. The violation of any ambient air quality standard, a substantial contribution to an existing or projected air quality violation, or exposure of sensitive receptors to substantial pollutant concentrations (emissions from direct, indirect, mobile and stationary sources)?			X		
b. The creation of objectionable smoke, ash or odors?			X		
c. Extensive dust generation?			X		

Setting. The project site is located within the South Central Coast air basin, a federal and state non-attainment area for ozone (O_3) and a state non-attainment area for particulate matter (PM_{10}). Reactive organic compounds (ROC) and nitrogen oxides (NO_x), which are precursors to ozone, are considered to be non-attainment pollutants. The major sources of ozone precursor emissions in the County are motor

vehicles, the petroleum industry and solvent use. Sources of PM_{10} include grading, road dust and vehicle exhaust.

County Environmental Thresholds. Chapter 5 of the Santa Barbara County Environmental Thresholds and Guidelines Manual addresses the subject of air quality. The thresholds provide that a proposed project will not have a significant impact on air quality if operation of the project will:

- emit (from all project sources, mobile and stationary), less than the daily trigger for offsets (55 pounds per day for NO_x and ROC, 80 pounds per day for PM_{10});
- emit less than 25 pounds per day of oxides of nitrogen (NO_x) or reactive organic compounds (ROC) and from motor vehicle trips only;
- not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone);
- not exceed the APCD health risk public notification thresholds adopted by the APCD Board; and
- be consistent with the adopted federal and state Air Quality Plans.

As indicated above, long-term/operational emissions thresholds have been established to address mobile emissions (i.e., motor vehicle emissions) and stationary source emissions (i.e., stationary boilers, engines, paints, solvents, and chemical or industrial processing operations that release pollutants). No thresholds have been established for short-term impacts associated with construction activities. However, the County's Grading Ordinance and the Air Pollution Control District requires standard dust control measures for all projects involving grading activities.

Impact Discussion

(a - b) Less than significant. Short-term emissions of ozone precursors (NO_x and ROC) during project construction would result primarily from the use of earthmoving equipment. Project-related grading to construct the reservoir would require approximately 36,475 cubic yards of cut and 29,127 cubic yards of fill. Excess soil (approximately 7,348 cubic yards) would be transported approximately 150 feet south of the reservoir site to be placed in a soil stockpile. Since short-term construction-related emissions are not considered to result in significant air quality impacts, project-related construction emissions of NO_x and ROC would be less than significant on a project-specific and cumulative basis. However, due to the non-attainment status of the air basin for ozone, the project would be required to implement standard conditions required by the APCD to reduce construction-related emissions of ozone precursors to the extent feasible. The implementation of these standard conditions is routinely required for all new development in the County.

The operation of the proposed reservoir would not generate a substantial amount of traffic (Section 4.13, Transportation/Circulation) or result in substantial direct or indirect emissions from stationary sources. The project would not result in industrial or other operations that would have the potential to result in emissions of smoke, ash, or objectionable odors. Therefore, the project would not be a substantial long-term source of emissions and would result in less than significant project-specific air emission impacts. The project's air emissions would not be substantial or be cumulatively considerable. Therefore, the project would not result in significant air emission impacts.

(c) Less than significant. Project-related grading would have the potential to be a short-term source of fugitive dust that could have the potential to impact nearby agricultural operations. Project-related grading would also contribute to regional emissions of PM_{10} and $PM_{2.5}$. Dust emissions resulting from project-related construction would be reduced to the extent feasible through the implementation of County Grading Ordinance and the Air Pollution Control District requirements, which require the implementation of standard dust control measures. Therefore, short-term dust emissions from project-related grading would be less than significant. The project would not be a substantial long-term source of dust emissions, and the project's potential dust emissions would not be cumulatively considerable. Therefore, the project would not result in significant cumulative dust-related impacts.

Cumulative Impacts. If a project's total ozone precursor emissions exceed the 25 pounds per day threshold, the project's cumulative impacts will also be significant. For a project that does not have significant ozone precursor emissions, its emissions have been taken into account in the Air Quality Attainment Plan (AQMP) growth projections and its cumulative impacts are considered to be less than significant. As described in responses a-c above, the operation of the proposed reservoir would not be a substantial source of ozone or dust emissions, and would not result in cumulatively considerable air emission impacts. Similarly, the operation of the proposed operation of Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) would not be a substantial source of emissions. The minor improvements proposed for the existing on-site access road (18LUP-00000-00434) would not result in a substantial increase in emissions from increased traffic. In addition, the proposed reservoirs and road improvements would not result in additional population growth that would be inconsistent with growth projections used by AQMP. Therefore, the proposed projects would result in less than significant cumulative air quality impacts.

Mitigation and Residual Impact. The project's impacts would be less than significant with the implementation of standard measures required by APCD. No mitigation is required.

4.3b AIR QUALITY - GREENHOUSE GAS EMISSIONS

Greenhouse Gas Emissions - Will the project:	**Poten. Signif.**	**Less than Signif. with Mitigation**	**Less Than Signif.**	**No Impact**	**Reviewed Under Previous Document**
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X		
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X		

Greenhouse Gas Emissions

Setting. Greenhouse gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). The largest source of greenhouse gas emissions from human activities in the United States is from fossil fuel combustion for electricity, heat, and transportation. Specifically, the *Inventory of U.S. Greenhouse Gasses and Sinks* (U.S. Environmental Protection Agency, 2013) states that the primary sources of greenhouse gas emissions in 2013 included electricity production (31%), transportation (27%), industry (21%), commercial and residential (12%), and agriculture (9%). This release of gases creates a

blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as "the greenhouse effect," there is strong evidence to support that human activities have accelerated the generation of greenhouse gases beyond natural levels. The overabundance of greenhouse gases in the atmosphere has led to a warming of the earth and has the potential to severely impact the earth's climate system. For instance, Santa Barbara County is projected to experience an increase in the number of wildfires, land vulnerable to 100-year flood events, and temperature increases, even under a low-emissions scenario (California Energy Commission, 2015).

Climate change results from greenhouse gas emissions "*…generated globally over many decades by a vast number of different sources*" rather than from greenhouse gas emissions generated by any one project (County of Santa Barbara Planning and Development, 2008). As defined in CEQA Guidelines Section 15355 and discussed in Section 15130, "…a cumulative impact consists of an impact which is created as a result of the combination of the [proposed] project…evaluated…together with other projects causing related impacts." Therefore, by definition, climate change under CEQA is a cumulative impact.

Environmental Threshold. CEQA Guidelines Section 15183.5(a) states,

> *Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in…a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from…that existing programmatic review…a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan…*

In May 2015, the County of Santa Barbara Board of Supervisors adopted the *Energy and Climate Action Plan* (ECAP) (County of Santa Barbara Long Range Planning Division, 2015) and certified the accompanying EIR (SCH# 20144021021) (PMC, 2015). The ECAP includes a greenhouse gas emissions forecast for unincorporated Santa Barbara County to 2035 and otherwise meets the criteria in CEQA Guidelines Section 15183.5(b) for a "plan to reduce greenhouse gas emissions." The ECAP commits the County to reduce community-wide greenhouse gas emissions by 15 percent below 2007 levels by 2020 consistent with the California Global Warming Solutions Act of 2006 (AB 32) and the related *Climate Change Scoping Plan* (California Air Resources Board, 2008). The ECAP concludes that the County can meet this emission reduction target by implementing 53 existing and new County projects, policies, and programs ("emission reduction measures"). As a result, specific projects included in the ECAP's emission forecast are not currently required to incorporate emission reduction measures listed in the ECAP or any other mitigation measures to reduce greenhouse gas emissions. Concurrent with the ECAP, the Board of Supervisors also adopted an amendment to the Energy Element of the Comprehensive Plan that requires the County to monitor progress meeting the emission reduction target and, as necessary, update the ECAP.

The growth estimates used in the ECAP's greenhouse gas emissions forecast were based on the *Santa Barbara County Regional Growth Forecast 2005-2040* (Santa Barbara County Association of Governments, 2007) and the 2010 U.S. Census. The growth estimates were based on factors such as population projections, vehicle trends, and planned land uses. The sources of greenhouse gas emissions included various sectors, such as transportation, residential energy, commercial energy, off-road, solid waste, agriculture, water and wastewater, industrial energy, and aircraft. As a result, most residential and commercial projects that are consistent with the County's zoning (in 2007) were included in the forecast. However, certain projects were not included in the emissions forecast, such as stationary source projects (e.g., large boilers, gas stations, auto body shops, dry cleaners, oil and gas production facilities, and water treatment facilities),

Comprehensive Plan amendments, and community plans that exceed the County's projected population and job growth.

A proposed project that was included in the ECAP's emissions forecast may tier from the ECAP's EIR for its CEQA analysis of greenhouse gas emissions. A project that tiers from the ECAP's EIR is considered to be in compliance with the requirements in the ECAP and, therefore, its incremental contribution to a cumulative effect is not cumulatively considerable.

Impact Discussion

(a - b) Less than significant. The proposed reservoir and soil stockpile would not result in an increase in population, the development of land uses that would result in substantial long-term emissions of greenhouse gases, and reservoirs are commonly associated with agricultural uses that are allowed in the AG-II zone. Therefore, the project would be consistent with growth projections for the County and long-term GHG emissions that may result from the operation of the reservoir were included in the ECAP's forecasted 2020 emissions. As such, GHG emission impacts that may result from the project are mitigated by the 53 emission reduction measures specified in the ECAP. Therefore, the impact of this individual project is less than significant and no mitigation measures are required.

Cumulative Impacts. The ECAP quantifies and forecasts greenhouse gas emissions for certain non-stationary sectors within unincorporated Santa Barbara County through 2020. As discussed for items "a-b" above, the proposed project was included in the ECAP's greenhouse gas emissions forecast. As a result, the proposed project would tier from the ECAP's certified EIR for its cumulative impact analysis of greenhouse gas emissions. The EIR contains a programmatic analysis of greenhouse gas emissions for unincorporated Santa Barbara County.

The ECAP contains 53 County and community-wide programmatic emission reduction measures to achieve the 15 percent greenhouse gas emissions reduction target by 2020. The County recently created the Energy and Sustainability Initiatives Division and is taking other steps to implement and monitor the effectiveness of these measures throughout the unincorporated county. The ECAP does not require the proposed project to incorporate any project-specific emission reduction measures or any mitigation measures to reduce greenhouse gas emissions. Therefore, the project complies with the requirements of the ECAP and, as provided in CEQA Guidelines 15183.5(b), its incremental contribution to the cumulative effect is not cumulatively considerable and would have a less than significant impact on the environment.

Mitigation and Residual Impact. Since the proposed project would not have a significant impact on the environment, no additional mitigation is necessary. Therefore, residual impacts would be less than significant.

4.4 BIOLOGICAL RESOURCES

Will the proposal result in:	**Poten. Signif.**	**Less than Signif. with Mitigation**	**Less Than Signif.**	**No Impact**	**Reviewed Under Previous Document**
Flora					
a. A loss or disturbance to a unique, rare or threatened plant community?			X		
b. A reduction in the numbers or restriction in the range			X		

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
of any unique, rare or threatened species of plants?					
c. A reduction in the extent, diversity, or quality of native vegetation (including brush removal for fire prevention and flood control improvements)?			X		
d. An impact on non-native vegetation whether naturalized or horticultural if of habitat value?			X		
e. The loss of healthy native specimen trees?			X		
f. Introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat?			X		
Fauna					
g. A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals?			X		
h. A reduction in the diversity or numbers of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates)?		X			
i. A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)?		X			
j. Introduction of barriers to movement of any resident or migratory fish or wildlife species?			X		
k. Introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife?			X		

Background and Methods

A biological resources assessment for the reservoir project (Kevin Merk Associates, LLC, September 19, 2018) was prepared for the project and is provided as Attachment 2. The assessment describes the existing biological resource conditions at and near the project site, identifies special-status biological resources known to exist in the project region, and evaluates potential impacts to sensitive habitat, oak trees, and wildlife that could result from the construction of the proposed project.

Setting

Biological resource surveys of the reservoir project site were conducted in the winter, spring, summer and fall of 2018. The results of the surveys are summarized below. Please refer to Attachment 2 for more detailed information regarding plant and animal species observed or expected to occur on the project site.

Vegetation. The project site consists of tilled agriculture land that supports patchy occurrences of weedy, non-native annual forbs growing on bare sandy loam soils. Prior to vineyard development, the project site and surrounding areas were regularly disturbed through tilling and crop rotation. No oak trees are located within the reservoir footprint area or adjacent to the reservoir site. An area that supports non-native grassland and oak trees is located northwest of the project site. The grassland and oak trees are associated with the ephemeral drainage that is approximately 400 feet northwest of the reservoir site. The non-

native grassland is at least 50 feet from the reservoir project site and is composed of a dense cover of non-native grasses, such as wild oats. Oak trees closest to the project site are approximately 225 feet from the reservoir footprint.

Wildlife. Agricultural or disturbed areas generally provide marginal habitat for wildlife because the ongoing human disturbance disrupts breeding and reduces the amount of available food. The active agriculture on the project site supports birds and other wildlife adapted to rural and suburban settings. Wildlife species observed within the within the project area included a variety of common birds and two raptor species (red-tailed hawk and American kestrel). The agricultural area also provide habitat for small mammals such as the California ground squirrel Botta's pocket gopher. Agricultural land and the nearby annual grassland areas can serve as foraging habitat for raptors, such as those observed throughout the project property.

Natural Communities of Special Concern. Five special status natural communities are located within five miles of the project site: Southern California Steelhead Stream, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Vernal Pool, and Southern Willow Scrub. The steelhead and riparian communities occur within the Santa Ynez River corridor approximately 3,500 feet south of the project site, and riparian communities occur along Zanja de Cota Creek approximately 1,200 feet west of the site. Vernal pool habitat, including defined critical habitat for vernal pool fairy shrimp is located approximately 1.25 miles east of the project site.

Critical Habitat. The US Fish and Wildlife Service has designated critical habitat essential to the conservation of three federally endangered or threatened species. Critical habitat for the following species has been designated near the project site:

- California red-legged frog critical habitat is approximately eight miles northeast and four miles south of the project site.
- Southern steelhead trout critical habitat is approximately 3,500 feet southwest of the project site in the Santa Ynez River.
- Vernal pool fairy shrimp critical habitat has been designated approximately 1.25 miles west of the project site.

Sensitive Plant Species. The California Natural Diversity Database (CNDDB) identifies 12 sensitive plants that occur in the project area (see Attachment 2, Table 1). None of the identified plants were observed or are expected to occur on the project site due to on-going farming operations that have removed potential suitable habitat for the identified species.

Sensitive Animal Species. The California Natural Diversity Database (CNDDB) identifies 15 sensitive wildlife species that occur in the project area (see Attachment 2, Table 1). Other special status bird species not listed by the CNDDB also have the potential to occur in the project region. It is unlikely or not expected that most of the sensitive species known to occur in the project area would utilize the reservoir project site, which has been disked and plowed for many years and does not contain habitat suitable to support most sensitive animal species. One of the species identified by the CNDDB, Cooper's hawk (*Accipiter cooperii*), has the potential to be located on or near the project site as suitable roosting, foraging and nesting habitat is present. No stick nests indicative of raptors were observed in trees near the project site.

County Environmental Thresholds

The County of Santa Barbara Environmental Thresholds and Guidelines Manual establishes thresholds for significant impacts to biological resources. Thresholds applicable to the proposed project include:

Individual Native Trees. Native specimen trees, regardless of size, are potentially significant. Specimen trees are defined as mature trees that are health and structurally sound and have grown into the natural stature particular to the species. In general, the loss of 10% or more of the trees of biological value on a project site is considered potentially significant.

Other Rare Habitat Types. The Manual recognizes that not all habitat-types found in Santa Barbara County are addressed by the habitat-specific guidelines. Impacts to other habitat types or species may be considered significant, based on substantial evidence in the record, if they substantially: (1) reduce or eliminate species diversity or abundance; (2) reduce or eliminate the quality of nesting areas; (3) limit reproductive capacity through losses of individuals or habitat; (4) fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources; (5) limit or fragment range and movement; or (6) interfere with natural processes, such as fire or flooding, upon which the habitat depends.

Impact Discussion

(a) Less than Significant. None of the five special status plant communities that exist in the vicinity of the project site (Southern California Steelhead Stream, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Vernal Pool, and Southern Willow Scrub) are located on the project site. Therefore, the project would not result in direct (i.e., removal) impacts to any sensitive habitat. As described in response "i" below, the project would implement a variety of best management practices to minimize potential erosion and construction-related water quality impacts that could adversely affect habitat associated with the small ephemeral tributary to the northwest of the project site, Zanja de Cota Creek, and the Santa Ynez River. Additional water quality protection Mitigation Measure No. 4 (Erosion and Sediment Control Plan) and Mitigation Measure No. 5 (Equipment Storage-Construction) would reduce potential water quality-related impacts to off-site habitat to a less than significant level. Therefore, the project would have less than significant impacts to a unique, rare or threatened habitat or plant community.

(b, c, d and f) Less than Significant. None of the sensitive plant species known to exist in the project region were observed at or near the project site, and are not expected to occur on or near the site due to on-going farming operations that have removed suitable habitat that could support sensitive plant species. Therefore, the project would not result in significant impacts resulting from a reduction in the number of sensitive native plants or a significant reduction in the extent or quality of non-native vegetation.

The construction and operation of the proposed reservoir and the construction of the proposed soil stockpile would not substantially increase the human-related use of the project site or result in an increase in the use of herbicides when compared to past agricultural activities that have occurred at the site.

(e) Less than Significant. No oak trees are located on or adjacent to the proposed reservoir site. The oak trees closest to the project site are at least 225 feet from the reservoir footprint area. Therefore, the construction and operation of the proposed project would have less than significant impacts to native oak trees.

(g) Less than Significant. Critical habitat has been designated in the project region for California red-legged frog, southern steelhead trout, and vernal pool fairy shrimp. However, no habitat suitable for these species exists at the project site, and the proposed reservoir and associated soil stockpile would not encroach into the designated critical habitat for these species. Therefore, the project would not result in development that would restrict the range of these species.

(h) Less than Significant with Mitigation. As described in the Setting section above, 15 sensitive wildlife species were identified by the CNDDB, and several other sensitive species are known to exist in the project area. Based on the results of surveys conducted at and in the vicinity of the project site, it is unlikely or not expected that most to the identified sensitive species would occur at or near the site due to the absence of suitable habitat. One of the identified species, Cooper's hawk, has the potential to be located on or near the project site as suitable roosting and nesting habitat is present. Nesting and foraging opportunities for other raptors is also available at the project site and surrounding areas. The proposed project would not result in significant potential nesting tree removal impacts, and would not remove a substantial area of potential foraging area. Therefore, the project would have a less than significant potential to result in direct impacts to sensitive wildlife known to exist in the project area.

Construction activities that cause birds to abandon an active nest would result in a significant impact. Due the proximity of oak trees to the northwest of the project site, there is a potential that project-related construction activities could result in a nest abandonment impact. This impact would be reduced to a less than significant level by Mitigation Measure 1, which requires pre-construction bird nest surveys and if necessary the establishment of buffer areas if construction is to occur during the nesting season.

(i) Less than Significant with Mitigation. Grading required to construct the proposed reservoir and associated soil stockpile would have the potential to result in significant short- and long-term erosion-related impacts to downstream aquatic species and habitat in the small ephemeral tributary to the northwest of the project site, Zanja de Cota Creek, and the Santa Ynez River. Construction operations also have the potential to result in the release of vehicle fluids and construction materials that can adversely affect downstream water quality. Erosion- and other water quality-related impacts would have the potential to impact sensitive species that may be present downstream of the project site.

The proposed project plans identify measures that would be implemented to minimize the potential for erosion- and other water quality-related impacts. These measures include the use of silt fences and fiber rolls to minimize potential short-term erosion impacts; seeding graded slopes, drainage swales, and soil stockpiles with native grasses to reduce the potential for long-term erosion impacts; and the use of "good housekeeping" best management practices to minimize the release of vehicle fluids or construction materials. These proposed measures would substantially reduce the potential for project-related erosion and other water quality impacts. The project's potential water quality-related impacts to aquatic species would be reduced to a less than significant level by implementing the requirements of Mitigation Measure No. 4 (Erosion and Sediment Control Plan) and Mitigation Measure No. 5 (Equipment Storage-Construction).

Storm water runoff currently sheet flows across the project site in a generally south to north direction. Runoff from areas south of the proposed reservoir would be intercepted and diverted by a proposed grass-lined swale to be located along the southern, eastern, and western perimeters of the reservoir. This swale would have the capacity to convey runoff generated by a 100-year storm, and would discharge to two ungrouted rock rip-rap aprons at the eastern and western ends of the reservoir. After being discharged across the rip-rap energy dissipater, runoff from the eastern end of the reservoir would sheet flow northward across agricultural fields similar to existing conditions. Runoff from the western energy

dissipater would sheet across agricultural fields and to the small ephemeral drainage northwest of the reservoir site, also similar to existing conditions. Therefore, the project would not substantially increase or decrease the amount of water available for aquatic species or habitat located downstream of the project site.

(j and k) Less than significant. The biological surveys conducted on the project site did not detect the presence of any wildlife game trails or movement corridors on the project site. The proposed reservoir would be fenced to exclude people and animals from entering and potentially becoming trapped in the reservoir. Fencing around the reservoir would not substantially inhibit wildlife travel through the project area. No lighting would be provided at the project site and the operation of the reservoir would not result in a substantial increase in noise or other conditions that would result in significant long-term habitat quality impacts at or near the project site. Therefore, the project would have less than significant impacts related to wildlife movement or activities.

Cumulative Impacts. The project site for Reservoir No. 2 has been extensively disturbed by agricultural activities; it is unlikely that the project site supports sensitive plant or wildlife species; and potential short- and long-term water quality-related impacts that may affect sensitive aquatic wildlife downstream from the project site would be reduced to a less than significant level. Therefore, the project's impacts to biological resources would not be cumulatively considerable. Potential biological resource impacts of the proposed Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) project were also evaluated by the biological resources report prepared for Reservoir No. 2 (see Attachment 2). The analysis concludes that the Reservoir No. 1 project site has also been extensively disturbed by farming activities and has a low potential to impact sensitive biological resources. Proposed improvements to the existing access road (18LUP-00000-00434) would generally result in minor grading along the roadway, however, the road project could have the potential to result in impacts to riparian resources located along the roadway. It is anticipated that any impacts to riparian resources would be limited in area and reduced to a less than significant level by required mitigation, and if necessary the implementation of requirements specified by a California Department of Fish and Wildlife approved Streambed Alteration Agreement. The proposed reservoir projects would not result in impacts to riparian resources, therefore, cumulative impacts to this sensitive habitat type would not be cumulatively significant. Therefore, with the implementation of proposed mitigation measures, potential cumulative impacts to biological resource impacts would be less than significant.

Mitigation and Residual Impact

Implementation of the following mitigation measures would reduce the project's impacts to biological resources to a less than significant level (Class II). Residual impacts would be less than significant.

1. **Special Condition: Pre-Construction Surveys for Nesting Birds**. Vegetation removal and grading shall not occur during bird nesting season (February 1–September 1). If these activities must occur during this time, pre-construction breeding bird surveys shall be performed by a qualified, County-approved biologist. Nesting bird pre-construction surveys shall occur within the area to be disturbed and extend outward 500 ft. If any occupied bird nests or cavity roosts are found, a County-approved biologist shall determine an appropriate buffer zone that considers the bird species, nest location, nest height, existing pre-construction level of disturbance in the vicinity of the nest, and proposed construction activities. A buffer ranging in size from 100 ft. for nesting passerine species to 500 ft. for nesting raptors shall be determined and demarcated by the biologist with bright-orange construction fencing, flagging, construction lathe, or other means to mark the boundary, unless a smaller buffer is considered adequate based on the factors listed above (as approved by the County of Santa Barbara).

The nest buffer zone shall remain in place until nesting activity has been completed and young birds have fledged.

PLAN REQUIREMENT AND TIMING: This survey shall be undertaken approximately10 days prior to the start of project grading to determine if active nests are located on or adjacent to the project site. A brief letter shall be prepared by the biologist and reviewed and approved by P&D before project grading is initiated. If nesting birds are found, the applicant shall avoid work in the area by providing a buffer from active nests until birds have fledged as determined by the qualified biologist.

MONITORING: P&D shall be given the name and contact information for the qualified biologist prior to initiation of the survey. Biologist shall contact P&D at the conclusion of the field survey to inform P&D in writing of the results of the surveys. If no active nests are found, P&D will allow grading activities to commence. All required mitigation shall be implemented prior to the start of proposed grading activities. Grading Inspectors shall inspect as needed.

4.5 CULTURAL RESOURCES

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
Archaeological Resources					
a. Cause a substantial adverse change in the significance of any object, building, structure, area, place, record, or manuscript that qualifies as a historical resource as defined in CEQA Section 15064.5?			X		
b. Cause a substantial adverse change in the significance of a prehistoric or historic archaeological resource pursuant to CEQA Section 15064.5?		X			
c. Disturb any human remains, including those located outside of formal cemeteries?		X			

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
d. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in the Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: 1) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020(k), or 2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant according to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of the Public Resources Code Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.		X			

Setting

For at least the past 10,000 years, the area that is now Santa Barbara County has been inhabited by Chumash Indians and their ancestors. A Phase 1 investigation (Cultural Resources Survey of the Rancho Sanja Cota Vineyard Reservoir Projects, 222 Refugio Road, *Santa Ynez, Santa Barbara County, California,* Central Coast Archaeological Research Consultants, 2019) of the proposed reservoir and associated soil stockpile areas was conducted. The survey did not identify any archaeological resources at the project site, however, a recorded cultural resource site is located within 5,000 feet of the project site.

County Environmental Thresholds

Chapter 8 of the Santa Barbara County Environmental Thresholds and Guidelines Manual (2008, revised February 27, 2018) contains guidelines for the identification, significance evaluation, and mitigation of impacts to cultural resources, including archaeological, historic, and tribal cultural resources. In accordance with the requirements of CEQA, these guidelines specify that if a resource cannot be avoided, it must be evaluated for importance under specific CEQA criteria. CEQA Section 15064.5(a)(3)A-D contains the criteria for evaluating the importance of archaeological and historic resources. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the significance criteria for listing in the California Register of Historical Resources: (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural

heritage; (B) Is associated with the lives of persons important in our past; (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or (D) Has yielded, or may be likely to yield, information important in prehistory or history. The resource also must possess integrity of at least some of the following: location, design, setting, materials, workmanship, feeling, and association. For archaeological resources, the criterion usually applied is (D).

CEQA calls cultural resources that meet these criteria "historical resources". Specifically, a "historical resource" is a cultural resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources, or included in or eligible for inclusion in a local register of historical resources, as defined in subdivision (k) of Section 5020.1, or deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1. As such, any cultural resource that is evaluated as significant under CEQA criteria, whether it is an archaeological resource of historic or prehistoric age, a historic built environment resource, or a tribal cultural resource, is termed a "historical resource".

CEQA Guidelines Section 15064.5(b) states that "a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." As defined in CEQA Guidelines Section 15064.5(b), substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. The significance of an historical resource is materially impaired when a project: (1) demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; (2) demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources; or (3) demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

For the built environment, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Weeks and Grimmer 1995), is generally considered as mitigated to a less than a significant impact level on the historical resource.

Impact Discussion

(a) Less than significant. The Mission/Fremont Trail (CA-SBA-2728/H) is located on a lower Santa Ynez River terrace approximately 3,500 feet south of the reservoir project site. The site record for this historical resource documents the historically reconstructed route of the ca. 1800 trail from Santa Barbara Mission to the Santa Ynez Valley. The mission route is thought to have been laid out following a Chumash trail and to have been followed by Fremont in 1846 when he marched into Santa Barbara. The first stage coach road over San Marcos Pass (CA-SBA-2685H; Feature I) is also recorded on the lower Santa Ynez River terrace. Construction of the San Marcos Pass stagecoach route began in 1868 and was completed in 1869. A review of the record for the route showed no stage stops or land use coinciding with the project site. The proposed reservoir would not result in any disturbances of or changes to existing conditions along the historic trail/stagecoach route located south of the project site. Therefore, the project would result in less than significant impacts to these historical resources.

(b and c) Less than significant with mitigation. Background research, consultation with the Chumash community, previous archaeological studies conducted in the vicinity of the project site, and the survey of the project site did not identify any archaeological resources that would be impacted by the construction of the proposed reservoir, associated soil stockpile, or the use of the temporary construction staging area. Therefore, the project would not impact any recorded cultural resource sites. The potential for intact archaeological deposits at the project site is considered to be low due to previous modifications to the project site (i.e., farming activities) and the results of the site survey and inspection of subsurface soil. However, the project area has a moderate to high density of archaeological sites; the project site is located near the confluence of two streams; and the project site is located approximately 400 feet from the mapped boundaries of archaeological site CA-SBA-2723. The site is recorded as containing ground stone, flaked stone tools and debitage (waste from making stone tools). Although the potential for unanticipated discoveries of cultural resources during project construction is low, there is the potential that unknown cultural resources could be encountered during grading and ground disturbance. Impacts are considered significant but mitigable with monitoring of earth disturbances by a qualified archaeologist and Native American monitor (CulRes-07), and the standard measure requiring that work be stopped in the event that cultural materials are uncovered during grading (CulRes-09).

(d) Less than significant with mitigation. To date, Santa Barbara County has received one tribal request, from the Barbareno/Ventureno Band of Mission Indians, to participate in government-to-government consultation pursuant to Public Resources Code (PRC) Section 21080.3.1 and in accordance with the provisions of Assembly Bill (AB) 52. On March 12, 2019, a formal notice of application completeness for the proposed project was sent to Julie Tumamait-Stenslie, Chair, Barbareno/Ventureno Band of Mission Indians. The notice provided notification of the opportunity for consultation under AB 52, and included a description of the proposed project and a copy of the project's Phase 1 survey report. No reply was received and no tribal cultural resources were identified on the subject parcel.

As described above in responses "b and c" above, no tribal cultural resources were identified on the project site. However, given the overall cultural sensitivity of the project area, there is the potential that unknown cultural resources, including tribal cultural resources could be encountered during grading and ground disturbance. Impacts are considered significant but mitigable with monitoring (CulRes-07), and the standard condition requiring that work be stopped in the event that cultural materials are uncovered during grading (CulRes-09). These measures would ensure that any previously unidentified cultural resources discovered during site development, including tribal cultural resources, are treated in accordance with the requirements of CEQA and Chapter 8 of the County's Environmental Thresholds and Guidelines. Impacts would be less than significant with mitigation.

Cumulative Impacts. The project would have a low potential to encounter previously undetected cultural resources during project construction. The archaeological resource survey conducted for the proposed project also evaluate potential cultural resource impacts that may result from the implementation of proposed Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) project. The survey did not detect the presence of cultural resources at the Reservoir No. 1 site and recommended the same mitigation measures to reduce potential impacts that may result if previously undetected resources are encountered. It is anticipated that similar requirements would also be required for the proposed project that would make improvements to the existing road that provides access to the project site (18LUP-00000-00434). Therefore, with the implementation of proposed mitigation measures, potential cumulative impacts cultural resource impacts would be less than significant.

Mitigation and Residual Impact. Implementation of the following requirements would reduce the project's potential impacts to cultural resources to a less than significant level (Class II). Residual impacts would be less than significant.

2. **CulRes-07 Cultural Resource Monitor**. The Owner/Applicant shall have all project-related grading that occur from the ground surface to six feet below the surface monitored by a P&D approved archaeologist and a Native American consultant in compliance with the provisions of the County Archaeological Guidelines.

   TIMING: Prior to zoning clearance approval for grading, the Owner/Applicant shall submit for P&D review and approval, a contract or Letter of Commitment between the Owner/Applicant and the archaeologist, consisting of a project description and scope of work, and once approved, shall execute the contract.

   MONITORING: The Owner/Applicant shall provide P&D compliance monitoring staff with the name and contact information for the assigned onsite monitor(s) prior to grading/building permit issuance. P&D compliance monitoring staff shall confirm monitoring by archaeologist and Native American consultant and P&D grading inspectors shall spot check field work.

3. **CulRes-09 Stop Work at Encounter.** The Owner/Applicant and/or their agents, representatives or contractors shall stop or redirect work immediately in the event archaeological remains are encountered during grading, construction, landscaping or other construction-related activity. The Owner/Applicant shall retain a P&D approved archaeologist and Native American representative to evaluate the significance of the find in compliance with the provisions of Phase 2 investigations of the County Archaeological Guidelines and funded by the Owner/Applicant. If remains are found to be significant, they shall be subject to a Phase 3 mitigation program consistent with County Archaeological Guidelines and funded by the applicant.

   PLAN REQUIREMENTS: This condition shall be printed on all grading plans.

   MONITORING: The P&D permit processing planner shall check plans prior to Zone Clearance and P&D compliance monitoring staff shall spot check in the field.

4.6 ENERGY

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Substantial increase in demand, especially during peak periods, upon existing sources of energy?			X		
b. Requirement for the development or extension of new sources of energy?			X		

Setting

The County has not identified significance thresholds for electrical and/or natural gas service impacts (Thresholds and Guidelines Manual). Private electrical and natural gas utility companies provide service to customers in Central and Southern California, including the unincorporated areas of Santa Barbara County.

(a-b) Less than significant impact. The proposed project would result in the construction and operation of a water reservoir. It is not anticipated that energy use to operate a reservoir water pump would result in a substantial increase in demand for energy; use energy in a wasteful manner; or require the development of new energy sources. Therefore, project-related energy use would be less than significant.

Cumulative Impacts. The project's contribution to the regional demand for energy would not be cumulatively considerable and its cumulative effect would be less than significant.

Mitigation and Residual Impact. Project-related energy demand would be less than significant. Therefore, no mitigation measures are required.

4.7 FIRE PROTECTION

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Introduction of development into an existing high fire hazard area?			X		
b. Project-caused high fire hazard?			X		
c. Introduction of development into an area without adequate water pressure, fire hydrants or adequate access for fire fighting?			X		
d. Introduction of development that will hamper fire prevention techniques such as controlled burns or backfiring in high fire hazard areas?			X		
e. Development of structures beyond safe Fire Dept. response time?			X		

Setting

Physical. The project site is not located within a designated Very High Fire Hazard Severity Area (CalFire, 2008). Vegetation at and adjacent to the project site is sparse, and consists of weeds in a plowed agricultural field. Irrigated vineyards are being installed adjacent to the reservoir site. Fire protection and suppression services for the project would be provided by Santa Barbara County Fire Station 32 (906 Airport Road, Santa Ynez), which is approximately 1.4 miles north of the project site.

Impact Discussion

(a - e) Less than significant. The proposed project would not result in the construction of habitable or combustible structures, would not increase the population of the project area, would not restrict future wildfire suppression activities, and would not result in a substantial demand for fire protection services. Therefore, the project would have a less than significant impact on fire protection services.

Cumulative Impacts. The proposed project, along with proposed Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) and the proposed improvements to the existing road that provides access to the project site (18LUP-00000-00434), would not result in new construction that would result in a substantial increase in the demand for fire suppression services. Therefore, potential cumulative fire protection impacts would be less than significant.

Mitigation and Residual Impact

No mitigation is required. Residual impacts would be less than significant.

4.8 GEOLOGIC PROCESSES

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Exposure to or production of unstable earth conditions such as landslides, earthquakes, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar hazards?			X		
b. Disruption, displacement, compaction or overcovering of the soil by cuts, fills or extensive grading?			X		
c. Exposure to or production of permanent changes in topography, such as bluff retreat or sea level rise?			X		
d. The destruction, covering or modification of any unique geologic, paleontologic or physical features?			X		
e. Any increase in wind or water erosion of soils, either on or off the site?		X			
f. Changes in deposition or erosion of beach sands or dunes, or changes in siltation, deposition or erosion which may modify the channel of a river, or stream, or the bed of the ocean, or any bay, inlet or lake?		X			
g. The placement of septic disposal systems in impermeable soils with severe constraints to disposal of liquid effluent?				X	
h. Extraction of mineral or ore?				X	
i. Excessive grading on slopes of over 20%?				X	
j. Sand or gravel removal or loss of topsoil?				X	
k. Vibrations, from short-term construction or long-term operation, which may affect adjoining areas?				X	
l. Excessive spoils, tailings or over-burden?			X		

Setting

Most of the proposed reservoir site is level and slopes gently to the north. A slope that is approximately 60 feet in height and that slopes downward to the ephemeral drainage northwest of the project site is approximately 200 feet northwest of the proposed reservoir footprint. No project-related grading would occur on the nearby slope. No groundwater was encountered in borings that ranged from six to 15 feet in depth (Pacific Coast Testing, 2018).

The Santa Ynez River fault zone has been mapped in a location that generally follows the Santa Ynez River, which is approximately 3,500 feet south of the project site. The United States Geological Survey classifies the fault as a Late Quaternary feature, with the last movement along the fault occurring between 15,000 and 130,000 years ago (https://usgs.maps.arcgis.com).

County Environmental Thresholds. Pursuant to the County's Adopted Thresholds and Guidelines Manual, impacts related to geological resources may have the potential to be significant if the proposed project involves any of the following characteristics:

1. The project site or any part of the project is located on land having substantial geologic constraints, as determined by P&D or PWD. Areas constrained by geology include parcels located near active or potentially active faults and property underlain by rock types associated with compressible/collapsible soils or susceptible to landslides or severe erosion. "Special Problems" areas designated by the Board of Supervisors have been established based on geologic constraints, flood hazards and other physical limitations to development.

2. The project results in potentially hazardous geologic conditions such as the construction of cut slopes exceeding a grade of 1.5 horizontal to 1 vertical.

3. The project proposes construction of a cut slope over 15 feet in height as measured from the lowest finished grade.

4. The project is located on slopes exceeding 20% grade.

Impact Discussion

(a, b, c, l) Less than significant. Construction of the proposed reservoir would result approximately 36,475 cubic yards of excavation and 29,127 cubic yards of fill. The excavated soil would be used to construct the proposed reservoir's water impoundment berms, which would have a maximum height of 15 feet above surrounding grade and a 2.5:1 (H:V) gradient. Approximately 7,348 cubic yards of excess soil would be placed in a soil stockpile located south of the reservoir site. The stockpile would cover an area of approximately 1.1 acres, have a maximum height of four feet, and would have side slopes that would not exceed 4:1. After construction, the exterior slopes of the reservoir and soil stockpile would be seeded with a grass seed mix. Therefore, the proposed reservoir and stockpile would not result in significant impacts related to grading, changes in topography, or covering existing soils.

The Santa Ynez River fault zone is located approximately 3,500 feet south of the project site, therefore, the there is a low potential for fault-related ground rupture to impact the reservoir. The geotechnical investigation prepared for the project concluded that based on a preliminary evaluation of on-site soil conditions the potential for liquefaction to occur at the project site is low. All proposed project-related design parameters, including the construction of reservoir side slopes and soil stockpile, would be reviewed and included in the grading permit required by the Building and Safety Division. Implementation of requirements included in approved grading plans and adherence to the requirements set forth in the Santa Barbara County Code, Chapter 14 Grading Ordinance would also reduce potential seismic and soil-related impacts. Therefore, the project would not result in significant seismic or soil-related hazard impacts.

(d) Less than significant. There are no unique geologic features at the project site and proposed modifications to the topography of the project property would not be extensive. Therefore, impacts to unique features would be less than significant.

(e, f,) Less than significant with mitigation. Grading to construct the proposed reservoir and the associated soil stockpile would have the potential to result in significant short- and long-term erosion-related impacts to downstream water resources, including the ephemeral drainage northwest of the project site, Zanja de Cota Creek, and the Santa Ynez River. The Santa Barbara County Code, Chapter 14 Grading Ordinance (2010) contains the minimum standards and procedures necessary to minimize grading-related erosion hazards. The Ordinance also addresses compliance with the National Pollutant Discharge Elimination System Phase II storm water regulations and sets forth local storm water requirements for project that disturb more than one acre. The implementation of these requirements would reduce the potential for the project to result in erosion- and sedimentation-related impacts to water resources. Mitigation Measure No. 4 (Erosion and Sediment Control Plan) provides specific erosion control requirements that would reduce the project's potential erosion-related impacts to a less than significant level.

(g, h, i, j, k) No impact. The project would not require the use of septic systems and would not result in mining operations. Grading to construct the proposed reservoir and soil stockpile would occur primarily on areas that are almost level, therefore, no grading would occur on slopes of 20 percent or greater. The project would not result in construction operations that would be a substantial source of vibrations (i.e., pile driving) and no sensitive vibration receptors are located near the project site.

Cumulative Impacts. Geologic impacts are generally project-specific and addressed based on the characteristics of individual project site. However, erosion and off-site sedimentation from a project site may contribute to off-site water quality and other sedimentation-related impacts. With the implementation of regulatory requirements and proposed project-specific mitigation, the project would not result in significant short- or long-term erosion impacts and the project's geologic impacts would not be cumulatively considerable and its cumulative effect would be less than significant.

Mitigation and Residual Impact

The following mitigation measure would reduce the project's potentially significant erosion- and sedimentation-related impacts to a less than significant level.

4. **Geo-02. Erosion and Sediment Control Plan**. Where required by the latest edition of the California Green Code and/or Chapter 14 of the Santa Barbara County Code, a Storm Water Pollution Prevention Plan (SWPPP), Storm Water Management Plan (SWMP) and/or an Erosion and Sediment Control Plan (ESCP) shall be implemented as part of the project. Grading and erosion and sediment control plans shall be designed to minimize erosion during construction and shall be implemented for the duration of the grading period and until re-graded areas have been stabilized by structures, long-term erosion control measures or permanent landscaping. The Owner/Applicant shall submit the SWPPP, SWMP or ESCP using Best Management Practices (BMP) designed to stabilize the site, protect natural watercourses/creeks, prevent erosion, convey storm water runoff to existing drainage systems keeping contaminants and sediments onsite. The SWPPP or ESCP shall be a part of the Grading Plan submittal and will be reviewed for its technical merits by P&D. Information on Erosion Control requirements can be found on the County web site re: Grading Ordinance Chapter 14 (http://sbcountyplanning.org/building/grading.cfm) refer to Erosion and Sediment Control Plan Requirements; and in the California Green Code for SWPPP (projects greater than 1 acre) and/or SWMP requirements.

PLAN REQUIREMENTS: The grading and SWPPP, SWMP and/or ESCP shall be submitted for review and approved by P&D prior to Zoning Clearance. The plan shall be designed to address erosion, sediment and pollution control during all phases of development of the site until all disturbed areas are permanently stabilized. **TIMING**: The SWPPP requirements shall be implemented prior to the commencement of grading and throughout the year. The ESCP/SWMP requirements shall be implemented between November 1st and April 15th of each year, except pollution control measures shall be implemented year round.

MONITORING: P&D staff shall perform site inspections throughout the construction phase.

4.9 HAZARDOUS MATERIALS/RISK OF UPSET

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. In the known history of this property, have there been any past uses, storage or discharge of hazardous materials (e.g., fuel or oil stored in underground tanks, pesticides, solvents or other chemicals)?			X		
b. The use, storage or distribution of hazardous or toxic materials?			X		
c. A risk of an explosion or the release of hazardous substances (e.g., oil, gas, biocides, bacteria, pesticides, chemicals or radiation) in the event of an accident or upset conditions?			X		
d. Possible interference with an emergency response plan or an emergency evacuation plan?			X		
e. The creation of a potential public health hazard?			X		
f. Public safety hazards (e.g., due to development near chemical or industrial activity, producing oil wells, toxic disposal sites, etc.)?			X		
g. Exposure to hazards from oil or gas pipelines or oil well facilities?			X		
h. The contamination of a public water supply?			X		

Setting

The area that would be used for the construction of the proposed reservoir is vacant and has been used for farming. According to the SWRCB Geotracker website (accessed March 25, 2019) there are no known contamination or permitted hazardous waste sites located on the project property, and there are no active contamination or remediation sites near the project property.

County Environmental Threshold

Pursuant to the County's Adopted Thresholds and Guidelines Manual, the County's safety threshold addresses involuntary public exposure from projects involving significant quantities of hazardous

materials. The threshold addresses the likelihood and severity of potential accidents to determine whether the safety risks of a project exceed significant levels.

Impact Discussion

(a-h) Less than Significant. The proposed project would result in the development and operation of a water storage reservoir. The construction and operation of the reservoir would not result in or require the use of hazardous materials at levels that would have the potential to result in a significant hazard to human health or the environment. Minor amounts of traffic that may be generated by the project would generally be for short-term construction or long-term maintenance purposes, and project-related traffic would not substantially interfere with emergency response capabilities to the project site or to other properties in the project area. Therefore, the project's potential hazard-related impacts would be less than significant.

Cumulative Impacts

The project would not result in significant impacts with respect to hazardous materials and/or risk of upset. Similarly, proposed Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) and proposed improvements to the existing access road that would serve Reservoir No. 1 and No. 2 (18LUP-00000-00434), would not require the use of substantial quantities of hazardous materials or generate traffic that could interfere with emergency response capabilities. Therefore, the potential cumulative impacts would be less than significant.

Mitigation and Residual Impact. No impacts are identified. No mitigations are necessary.

4.9 LAND USE

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Structures and/or land use incompatible with existing land use?			X		
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X		
c. The induction of substantial growth or concentration of population?				X	
d. The extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project?				X	
e. Loss of existing affordable dwellings through demolition, conversion or removal?				X	
f. Displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X	

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
g. Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X	
h. The loss of a substantial amount of open space?			X		
i. An economic or social effect that would result in a physical change? (i.e. Closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.)			X		
j. Conflicts with adopted airport safety zones?			X		

Setting

The project property and surrounding properties have historically been used for a variety of agricultural purposes. The project site was recently graded to accommodate planting grape vines. The proposed reservoir would be approximately 2,600 feet northeast of residences located on the west side of Zanja de Cota Creek; approximately 2,800 feet southeast of residences on the Chumash Indian Reservation that are also located on the west side of Zanja de Cota Creek; and approximately 5,000 feet west of the Meadowlark Existing Developed Rural Neighborhood. The project site is approximately 3,500 feet north of the Santa Ynez River; approximately 1.1 miles south of the Santa Ynez Airport; and approximately 1.5 miles south of the community of Santa Ynez. The proposed reservoir and associated soil stockpile would be located on a 237-acre parcel that is zoned AG-I1-100.

County Environmental Threshold

The Thresholds and Guidelines Manual contains no specific thresholds for land use. Generally, a potentially significant impact can occur if a project would result in substantial growth inducing effects or result in a physical change in conflict with County policies adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Discussion

(a, b) Less than significant. The project property is zoned AG-II-100 and land uses on and adjacent to the proposed reservoir site are agricultural uses. Agricultural reservoirs are a conditionally permitted use in the AG-II zone, and the proposed reservoir would be compatible with the agricultural character of the project site and adjacent areas. Therefore, the project would not conflict with applicable land use requirements.

A 60-foot wide easement is located south of the proposed reservoir project site and was granted to the Central Coast Water Authority for the purposes of constructing a water pipeline, appurtenances, temporary construction, and revegetation. The southern extent of grading required to construct the reservoir would

occur approximately 20 feet north of the easement boundary. No project-related roadways, utilities, surface improvements, fencing, or landscaping would be installed in the easement area. Therefore, the project would not conflict with the easement.

(c, d) No impact. The project would not result in an extension of urban services that could serve new development beyond the proposed project, and would not result in an increase in the population of the project area. Therefore, the project would not result in potential growth inducing impacts.

(e, f, g) No impact. The project would not result in the removal of any housing or the displacement of any people. Therefore, the project would have no impact to existing housing supplies.

(h) Less than significant. The proposed project would occupy approximately 5.5 acres of the 237-acre project property, and would be used to support an agricultural operation. The proposed soil stockpile would be re-vegetated with a grass seed mix and would not result in a permanent loss of open space. Therefore, project-related impacts to open space would be less than significant.

(i) Less than significant. The proposed reservoir would not divide or isolate any existing uses conducted on or near the project site and would support an agricultural use on a property that has historically been used for agriculture. Therefore, the project would not result in adverse economic or social effects that would have the potential to result in physical changes to existing environmental conditions on the project sites or in the project area.

(j) Less than significant. The proposed reservoir would be located approximately 1.1 miles south of the Santa Ynez Airport. The project site is south of the airport safety area established by the 1993 Santa Barbara County Airport Land Use Plan. The project site is also approximately 3,000 feet south of Safety Zone 6 (the outermost safety zone) identified by the Draft Airport Land Use Compatibility Plan (SBCAG, 2012). The proposed reservoir would not result in conditions (light, glare, structure height, birds, etc) that would adversely affect aircraft operations at the airport. Therefore, the project would have less than significant impacts on airport operations.

Cumulative Impacts. Proposed Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) would be located approximately 1.2 miles west of residential areas located on the west side of Zanja de Cota Creek, and proposed improvements to the existing access road that would serve Reservoir No. 1 and No. 2 (18LUP-00000-00434) would occur a minimum of approximately 2,000 feet from those residential areas. With these separation distances, short-term construction activities associated with the Reservoir No. 1 and road improvement projects would not result in cumulatively considerable land use-related conflicts with nearby residential areas. The Reservoir No. 1 and road improvement projects would not result in potential long-term cumulative land use impacts such as removing housing, requiring an extension of utilities, or resulting in development that would conflict with operations at the Santa Ynez Airport. Therefore, potential cumulative land use impacts would be less than significant.

Mitigation and Residual Impact. No significant land use impacts have been identified and no mitigation is required. Residual impacts would be less than significant.

4.10 NOISE

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Long-term exposure of people to noise levels exceeding County thresholds (e.g. locating noise sensitive uses next to an airport)?			X		
b. Short-term exposure of people to noise levels exceeding County thresholds?			X		
c. Project-generated substantial increase in the ambient noise levels for adjoining areas (either day or night)?			X		

Setting. Aircraft operations at the Santa Ynez Airport and vehicles traveling on Highway 246 are the major noise source in the project region. The operation of agricultural equipment is the major noise source on the project site. The project site is approximately 2,600 feet northeast of residences located on the west side of Zanja de Cota Creek; approximately 2,800 feet southeast of residences on the Chumash Indian Reservation that are also located on the west side of Zanja de Cota Creek; and approximately 5,000 feet west of the Meadowlark Existing Developed Rural Neighborhood.

County Environmental Thresholds. Noise is generally defined as unwanted or objectionable sound which is measured on a logarithmic scale and expressed in decibels (dB(A)). The duration of noise and the time period at which it occurs are important values in determining impacts on noise-sensitive land uses. The Community Noise Equivalent Level (CNEL) and Day-Night Average Level (L_{dn}) are noise indices which account for differences in intrusiveness between day- and night-time uses. County noise thresholds are: 1) 65 dB(A) CNEL maximum for exterior exposure, and 2) 45 dB(A) CNEL maximum for interior exposure of noise-sensitive uses. Noise-sensitive land uses include: residential dwellings; transient lodging; hospitals and other long-term care facilities; public or private educational facilities; libraries, churches; and places of public assembly.

Noise from grading and construction activity proposed within 1,600 feet of sensitive receptors, including schools, residential development, commercial lodging facilities, hospitals or care facilities, would generally result in a potentially significant impact. According to EPA guidelines average construction noise is 95 dB(A) at a 50-foot distance from the source. A 6 dB drop occurs with a doubling of the distance from the source. Therefore, locations within 1,600 feet of the construction site would be affected by noise levels over 65 dB(A).

Impact Discussion

(a, c) Less than significant. The operation of the proposed reservoir would not result in the generation of noise that would have the potential to result in significant noise impacts to residential noise receptors located near the project site. Minor amounts of traffic that may be generated by the project would generally be for periodic maintenance-related purposes, and such traffic would not substantially increase existing noise conditions on nearby local roads or along Highway 246. The reservoir project would not result in new development that would be adversely affected by noise associated with the Santa Ynez Airport. Therefore, the project's potential long-term noise impacts would be less than significant.

(b) Less than significant. Construction of the proposed reservoir and soil stockpile would result in a temporary increase in noise levels at the project site. It is estimated that construction of the reservoir would

occur over a period of approximately 90 days. The residences located on the west side of Zanja de Cota Creek are more than 1,600 feet from the project site, therefore, the project's short-term noise impacts to those residences would not be significant.

Cumulative Impacts. The operation of the proposed reservoir project would not be a substantial source of noise. Similarly, the operation of proposed Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) and the proposed improvements to the existing access road that would serve Reservoir No. 1 and No. 2 (18LUP-00000-00434) would not substantially increase existing traffic or related noise conditions in the project area. Therefore, potential cumulative long-term noise impacts would be less than significant. Proposed Reservoir No. 1 would be approximately 1.2 miles west of residential areas located on the west side of Zanja de Cota Creek, and proposed road improvements would occur at a minimum of approximately 2,000 feet from the those residential areas. With these separation distances, short-term construction activities associated with the Reservoir No. 1 and road improvement project would not result in cumulatively considerable noise impacts to nearby residential areas.

Mitigation and Residual Impact. No significant noise impacts have been identified and no mitigation is required. Residual impacts would be less than significant.

4.11 PUBLIC FACILITIES

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. A need for new or altered police protection and/or health care services?				X	
b. Student generation exceeding school capacity?				X	
c. Significant amounts of solid waste or breach any national, state, or local standards or thresholds relating to solid waste disposal and generation (including recycling facilities and existing landfill capacity)?				X	
d. A need for new or altered sewer system facilities (sewer lines, lift-stations, etc.)?				X	
e. The construction of new storm water drainage or water quality control facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X		

Setting

The proposed project site does not contain any structural development or any public facilities.

County Environmental Thresholds

Schools. A significant level of school impacts is generally considered to occur when a project would generate a sufficient number of students to require an additional classroom.

Solid Waste. A project is considered to result in significant impacts to landfill capacity if it would generate 196 tons per year of solid waste. This volume represents 5% of the expected average annual increase in waste generation, and is therefore considered a significant portion of the remaining landfill capacity. In addition, construction and demolition waste from remodels and rebuilds is considered significant if it exceeds 350 tons. Waste generation of 40 tons per year is considered a potentially significant contribution to cumulative waste generation.

Impact Discussion

(a-d) No impact. The proposed project would not result in the development of habitable structures and would not increase population on the project site or in the project area. The project would not result in a demand for law enforcement, generate additional school age children, generate solid waste, or be a source of sewage generation. Therefore, the project would have no impact on these services.

(e) Less than significant. The proposed reservoir includes the construction of a new grass-lined drainage swale to be located along the south, east, and west sides of the reservoir. The proposed operation characteristics of the drainage swale are described in Section 4.14 (Water Resources/Flooding) below. No off-site drainage improvements are required for the proposed project.

Cumulative Impacts. The proposed project would not result in a population increase that would contribute to significant public facilities impacts. Solid waste generation would be below the County threshold of 40 tons per year for a significant cumulative impact. The project's public facilities impacts would not be cumulatively considerable. Similarly, the proposed Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) and the proposed improvements to the existing access road that would serve Reservoir No. 1 and No. 2 (18LUP-00000-00434) are not expected to result in cumulatively considerable public service impacts. Therefore, the potential public facility impacts would be less than significant.

Mitigation and Residual Impact

No mitigation is required. Residual impacts would be less than significant.

4.12 RECREATION

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Conflict with established recreational uses of the area?				X	
b. Conflict with biking, equestrian and hiking trails?				X	
c. Substantial impact on the quality or quantity of existing recreational opportunities (e.g., overuse of an area with constraints on numbers of people, vehicles, animals, etc. which might safely use the area)?				X	

Setting

There are no recreation facilities on or near the project site.

County Environmental Thresholds. The Thresholds and Guidelines Manual contains no threshold for park and recreation impacts. However, the Board of Supervisors has established a minimum standard ratio of 4.7 acres of recreation/open space per 1,000 people to meet the needs of a community. The Santa Barbara County Parks Department maintains more than 900 acres of parks and open spaces, as well as 84 miles of trails and coastal access easements. The County's Comprehensive Plan, Land Use Element, Parks/Recreation Policies state, in part: "Opportunities for hiking and equestrian trails should be preserved, improved, and expanded wherever compatible with surrounding uses."

Impact Discussion

(a-c) No impact. There are no parks or public trails located on or near the project site, and the project would not result in a population increase that would contribute to significant impacts to recreation facilities. Therefore, the project would have no impact on existing recreational facilities or increase the demand for recreation opportunities.

Cumulative Impacts. The proposed project would not result in an increase in population in the project area and would not directly or indirectly impact any existing recreation facilities. Therefore, the project's contribution to cumulative recreation impacts would not be cumulatively considerable and its cumulative impacts would be less than significant.

Mitigation and Residual Impact. No mitigation is required. Residual impacts would be less than significant.

4.13 TRANSPORTATION/CIRCULATION

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Generation of substantial additional vehicular movement (daily, peak-hour, etc.) in relation to existing traffic load and capacity of the street system?			X		
b. A need for private or public road maintenance, or need for new road(s)?			X		
c. Effects on existing parking facilities, or demand for new parking?			X		
d. Substantial impact upon existing transit systems (e.g. bus service) or alteration of present patterns of circulation or movement of people and/or goods?				X	
e. Alteration to waterborne, rail or air traffic?				X	
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians (including short-term construction and long-term operational)?			X		

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
g. Inadequate sight distance?			X		
ingress/egress?			X		
general road capacity?			X		
emergency access?			X		
h. Impacts to Congestion Management Plan system?			X		

Setting

There are two routes that provide access to the project site. The project site can be access from SR 246 by traveling approximately 900 feet south on Airport Road; approximately 4,600 feet along paved and dirt roads that are adjacent to the Santa Ynez Airport property; then southward on dirt vineyard roads. An access road easement recorded in 2017 between Gainey Vineyard and the project applicant allows access along the roads adjacent to the Airport property. The project site can also be accessed from SR 246 by traveling south and then east on North Refugio Road.

County Environmental Thresholds. The Public Works Department, Roads Division's general standards governs all project proposals within the County. In addition, according to the County's Environmental Thresholds and Guidelines Manual, a significant traffic impact would occur when:

a. The addition of project traffic to an intersection increases the volume to capacity (V/C) ratio by the value provided below, or sends at least 15, 10 or 5 trips to an intersection operating at LOS D, E or F.

LEVEL OF SERVICE (including project)	INCREASE IN VOLUME/CAPACITY RATIO GREATER THAN
A	0.20
B	0.15
C	0.10
	Or the addition of:
D	15 trips
E	10 trips
F	5 trips

b. Project access to a major road or arterial road would require a driveway that would create an unsafe situation, or would require a new traffic signal or major revisions to an existing traffic signal.

c. Project adds traffic to a roadway that has design features (e.g., narrow width, road side ditches, sharp curves, poor sight distance, inadequate pavement structure) or receives use which would be incompatible with substantial increases in traffic (e.g. rural roads with use by farm equipment, livestock, horseback riding, or residential roads with heavy pedestrian or recreational use, etc.) that will become potential safety problems with the addition of project or cumulative traffic. Exceeding the roadway capacity designated in the Circulation Element may indicate the potential for the occurrence of the above impacts.

d. Project traffic would utilize a substantial portion of an intersection(s) capacity where the intersection is currently operating at acceptable levels of service (A-C) but with cumulative traffic would degrade to or approach LOS D (V/C 0.81) or lower. Substantial is defined as a minimum change of 0.03 for intersections which would operate from 0.80 to 0.85 and a change of 0.02 for intersections which would operate from 0.86 to 0.90, and 0.01 for intersections operating at anything lower.

Impact Discussion

(a-c, f-h) Less than significant. Short-term traffic generated by the proposed project would be primarily from the transportation of construction equipment and materials to and from the project site, and by construction workers commuting to and from the project site. Long-term traffic would likely result from periodic maintenance activities. Overall, traffic generated by the project would be very low and would not adversely affect the operation of State Route 246 or other local roads in the project area. Due to very low traffic volumes generated by the project, it would not substantially increase the need for road maintenance in the project area, and the project would not adversely affect emergency vehicle operations on roads located near the project site. Adequate area would be available on the site, including on the proposed staging area, to accommodate construction and maintenance vehicle parking. The small amount of traffic generated by the project would result in less than significant impacts related to traffic volume or safety.

(d, e) No impact. The proposed project would not result in an increased demand for transit services, and would have no effect on rail or waterborne traffic. The proposed reservoir would be located approximately 1.1 miles south of the Santa Ynez Airport. The construction and operation of the proposed reservoir would not result in alterations to existing air traffic at the airport. Therefore, the project would have no impact on transit or aircraft operations.

Cumulative Impacts. Construction of the proposed reservoir would not generate a substantial amount of traffic, and long-term operation traffic would primarily be for periodic maintenance of the reservoir. Therefore, traffic generated by the project would not cumulatively considerable. Similarly, the construction and operation of proposed Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) would not generate a substantial amount of traffic, and proposed improvements to the existing access road that would serve Reservoir No. 1 and No. 2 (18LUP-00000-00434) would primarily serve five existing farm worker dwellings and would not substantially increase existing traffic along the roadway. Therefore, potential cumulative traffic-related impacts would be less than significant.

Mitigation and Residual Impact. No mitigation required. Residual impacts would be less than significant.

4.14 WATER RESOURCES/FLOODING

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters?			X		
b. Changes in percolation rates, drainage patterns or the rate and amount of surface water runoff?			X		
c. Change in the amount of surface water in any water body?			X		
d. Discharge, directly or through a storm drain system, into surface waters (including but not limited to wetlands, riparian areas, ponds, springs, creeks, streams, rivers, lakes, estuaries, tidal areas, bays, ocean, etc) or alteration of surface water quality, including but not limited to temperature, dissolved oxygen, turbidity, or thermal water pollution?			X		
e. Alterations to the course or flow of flood water or need for private or public flood control projects?			X		
f. Exposure of people or property to water related hazards such as flooding (placement of project in 100 year flood plain), accelerated runoff or tsunamis, sea level rise, or seawater intrusion?			X		
g. Alteration of the direction or rate of flow of groundwater?			X		
h. Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or recharge interference?			X		
i. Overdraft or over-commitment of any groundwater basin? Or, a significant increase in the existing overdraft or over-commitment of any groundwater basin?			X		
j. The substantial degradation of groundwater quality including saltwater intrusion?			X		
k. Substantial reduction in the amount of water otherwise available for public water supplies?			X		
l. Introduction of storm water pollutants (e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) into groundwater or surface water?		X			

Setting

The proposed reservoir site is general level and slopes gently to the north. A slope that is approximately 60 feet in height and that slopes downward to the ephemeral drainage northwest of the project site is approximately 200 feet northwest of the proposed reservoir footprint. The proposed soil stockpile would be located approximately 150 feet south of the reservoir in an area that is also level. Stormwater drainage

from the reservoir and soil stockpile sites currently sheet flows northward over agricultural fields. Some of the runoff from the project site may flow to the ephemeral drainage located northwest of the project site that is a tributary to Zanja de Cota Creek. The creek ultimately flows to the Santa Ynez River, which is approximately 3,500 feet south of the project site.

The mapped boundaries of groundwater basins in the Santa Ynez Valley are depicted by the Santa Ynez Valley Community Plan on Figure 19: *Santa Ynez Valley Region Ground Water Resources*. As depicted by this map, the proposed reservoir and existing water supply wells are located within the Santa Ynez Uplands Groundwater Basin (Attachment 4). The County of Santa Barbara Environmental Thresholds and Guidelines Manual (1992) and the 2014 Groundwater Basins Status Report (Santa Barbara County Water Agency, 2014) state that groundwater overdraft in the Santa Ynez Uplands Basin is 2,028 acre feet per year (AFY).

County Environmental Thresholds. A project is determined to have a significant effect on water resources if it would exceed established threshold values that have been set for each overdrafted groundwater basin. These values were determined based on an estimation of a basin's remaining life of available water storage. If the project's net new consumptive water use [total consumptive demand adjusted for recharge less discontinued historic use] exceeds the threshold adopted for the basin, the project's impacts on water resources are considered significant. The water demand threshold for the Santa Ynez Uplands Groundwater Basin is 61 AFY. The adopted threshold applies only to projects subject to discretionary review by the County, and does not apply to uses, such as agricultural operations that do not require approval of a discretionary permit.

Water Quality Thresholds. A significant water quality impact is presumed to occur if the project:

- Is located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;
- Increases the amount of impervious surfaces on a site by 25% or more;
- Results in channelization or relocation of a natural drainage channel;
- Results in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands;
- Is an industrial facility that falls under one or more of categories of industrial activity regulated under the NPDES Phase I industrial storm water regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; recycling facilities; steam electric plants; transportation facilities; treatment works; and light industrial activity);
- Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the Regional Water Quality Control Board's (RWQCB) Basin Plan or otherwise impairs the beneficial uses[1] of a receiving water body;

[1] Beneficial uses for Santa Barbara County are identified by the Regional Water Quality Control Board in the Water Quality Control Plan for the Central Coastal Basin, or Basin Plan, and include (among others) recreation, agricultural supply, groundwater recharge, fresh water habitat, estuarine habitat, support for rare, threatened or endangered species, preservation of biological habitats of special significance.

- Results in a discharge of pollutants into an "impaired" water body that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act); or

- Results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.

Impact Discussion

(a-d) Less than significant impact. Stormwater flows over the project site are generally from south to north. The project includes the construction of a new grass-lined swale along the south, east, and west sides of the reservoir that would collect and divert stormwater runoff around the reservoir. This drainage swale would collect runoff from a two small watershed areas. The watershed located south of the western portion of the reservoir site is approximately 6.69 acres, and the watershed located south of the eastern portion of the reservoir site is approximately 7.52 acres. The proposed drainage swale would have adequate capacity to convey runoff generated by a 100-year storm. The swale would discharge collected water to rip-rap aprons located adjacent to the eastern and western sides of the reservoir. After being discharged across the rip-rap energy dissipater, runoff from the eastern end of the reservoir would sheet flow northward across agricultural fields similar to existing conditions. Runoff from the western energy dissipater would sheet across agricultural fields and to the small ephemeral drainage northwest of the reservoir site, also similar to existing conditions. The proposed drainage system would not collect or discharge a substantial amount of water, would not substantially alter existing drainage patterns on the project property, and the drainage system would not substantially increase or decrease the amount of runoff that is currently discharged from the project site. The proposed rip-rap aprons would reduce the potential for erosion-related impacts.

The interior of the reservoir would be covered with an impermeable liner and precipitation that falls within the reservoir would not percolate into the ground. However, most of the retained precipitation would eventually be used for crop production, either for frost protection or irrigation after the end of the frost season. Therefore, most of the retained precipitation would ultimately be returned to the ground surface and not result in substantial long-term changes to percolation conditions at the project site.

The proposed soil stockpile would have a maximum height of approximately four feet and have side slopes that would not exceed 4(h):1(v). The stockpile would not substantially change existing topographic or stormwater flow conditions that occur at the stockpile site or downstream from the site.

Overall, the proposed project's drainage system would not result in significant changes in water movement through the project site; significant changes to existing percolation rates or the amount of water in any water body; or result in significant drainage-related erosion impacts. Therefore, the project would result in less than significant drainage-related impacts.

(e-f) Less than significant. The project site is located approximately 1,600 feet north of the Santa Ynez River. In the project area, the 100-year floodplain for the River is generally located within the river channel (Flood Insurance Rate Maps 06083C1079G). The proposed reservoir and soil stockpile sites are not located within a designated 100-year floodplain and would not alter the flow of flood water. The project site is not located in a coastal area that may be affected by a tsunami or a rise in sea level. The proposed project would be required to comply with County Grading Ordinance requirements, which would ensure that the proposed reservoir berms are structurally adequate to contain the water impounded by the reservoir. Therefore, the project would have less than significant impacts related to flood-related hazards.

(g-k) Less than significant. Water to be stored in the reservoir would be supplied by two existing Santa Ynez River Water Conservation District agricultural water meters, and an existing agricultural well. The existing water meters and water well are located on Assessor Parcel 141-440-017. Water from each of the wells would be conveyed to the proposed reservoir by existing vineyard irrigation pipelines, and water that is stored in the reservoir would be distributed using existing irrigation pipelines. The existing water delivery pipelines and frost protection water distribution pipelines would be connected to the reservoir at a new pump station to be located near the southwestern corner of the reservoir.

Agricultural operations conducted on properties with agricultural zoning are an allowed use and no land use entitlements are required for such uses (LUDC Section 35.21.030). The vineyard operations located on and near the proposed reservoir are located on property with agricultural zoning (AG-II-100). Therefore, the vineyard operations and water used by the vineyards do not require any discretionary land use entitlements from the County, and water impounded in the proposed reservoir that would be used to support (i.e., provide frost protection) the vineyards is not subject to the water use threshold established for the Santa Ynez Uplands Groundwater Basin.

The amount of water that may be used for vineyard frost protection can vary substantially each year depending on the number and duration of frost events. During a frost event, water would be sprayed on the vines at a rate of 57 gallons per minute per acre[2]. The reservoir would serve approximately 300 acres of vineyards, therefore during a frost event the existing and potential future vineyards would require the use of approximately 3.14 acre feet of water per hour.[3] As indicated above, the use of water for frost protection supports an allowed agricultural use and is not subject to the water use threshold established for the Santa Ynez Uplands Groundwater Basin.

The proposed water storage reservoir is a conditionally permitted use in the AG-II-100 zone and requires the approval of a discretionary Minor Conditional Use Permit. Therefore, water impounded in the reservoir that is not directly or indirectly used in support of the existing vineyards is subject to the water use thresholds of the Environmental Thresholds Manual. Water impounded in the reservoir that would not be directly or indirectly used in support of the vineyards would be the water that evaporates from the reservoir. As proposed, water would be stored in the reservoir throughout the year for both frost protection and irrigation. If the amount of water that evaporates from the proposed reservoir throughout the year exceeds the threshold of 61 AFY, the project would result in a significant water use impact.

An estimate of net evaporative losses from the reservoirs was prepared based on a variety of factors, including climatic conditions throughout the year; precipitation that enters the reservoir; and calculated evaporative losses. It was estimated that the average annual net evaporative loss from the reservoir would be approximately 5.09 AFY. Additional information regarding the estimated evaporative losses of water stored in the reservoir is provided in a report titled *Evaporative Loss Determination for Sanja Cota Vineyard Frost Protection Project*, October 4, 2018 (Attachment 5). Therefore, net evaporative losses

[2] Source: Paul Ranch Frost Protection Reservoir Final Mitigated Negative Declaration (18NGD-00000-00005, September 25, 2018.

[3] $\frac{300 \text{ acres} \times 57 \text{ gallons/minute} \times 60 \text{ minutes/hour}}{325{,}851 \text{ gallons/acre foot}} = 3.14 \text{ acre feet/hour}$

from the reservoir would be substantially below the water use significance threshold of 61 AFY and the project would result in a less than significant water use impact.

(l) Less than significant with mitigation. Grading and construction activities could result in increased soil erosion, and the use of concrete and other substances could have the potential to result in short-term water quality impacts. To reduce the project's potential short-term impacts to runoff water quality, the project proposes to implement a variety or erosion/sedimentation control Best Management Practices. These measures include the use of silt fences and fiber rolls to minimize potential short-term erosion impacts; seeding graded slopes, drainage swales, and the soil stockpile with a grass seed mix to reduce the potential for long-term erosion impacts; and the use of "good housekeeping" best management practices to minimize the release of vehicle fluids or construction materials from construction areas and the proposed construction staging area. In addition, proposed Mitigation Measure No. 4 requires the preparation and implementation of an approved Erosion and Sediment Control Plan and a Storm Water Pollution Prevention Plan; and Mitigation No. 5 requires the implementation of additional water quality measures at construction equipment storage area. With implementation of these measures, potential short-term water quality impacts would be less than significant.

The operation of the proposed reservoir would not require the use of fertilizers, pesticides or other substances that would have the potential to result in significant water quality impacts. The project would not result in the use of an on-site wastewater disposal system that could have the potential to contribute to the degradation of groundwater quality. Long-term erosion from proposed reservoir water impoundment berms, drainage swales and soil stockpile would have the potential to result in erosion and sediment impacts to downstream water resources. This potential impact, however, would be minimized as the proposed project plans show that proposed berms, the soil stockpile, and drainage swale would be planted with a grass seed mix. In addition, County Grading Ordinance requirements and proposed Mitigation Measure No. 4, which requires the preparation and implementation of a Stormwater Management Plan and/or Erosion and Sediment Control Plan, would further reduce the potential for significant long-term erosion-related impacts. Therefore, potential long-term erosion impacts of the project would be reduced to a less than significant with mitigation.

Cumulative Impacts. The storage of water in the proposed reservoir would result in annual evaporative water losses of approximately 5.09 acre feet. Although the project's evaporative water losses would contribute to overdraft conditions in the Santa Ynez Valley, the project-related evaporative losses would be substantially below the adopted significance threshold of 61 AFY, which is also the point where a project's use of water is determined to be a cumulatively considerable impact. In addition, it has been estimated that proposed Sanja Cota Frost Protection Reservoir No. 1 (18CUP-00000-00027) would result in annual evaporative water losses of approximately 8.45 acre feet (Attachment 5). The combined Reservoir No. 1 and No.2 water losses would be approximately 13.54 acre feet, which is also substantially below the adopted significance threshold. Proposed improvements to the existing access road that would serve Reservoir No. 1 and No. 2 (18LUP-00000-00434) would not result in a long-term increase in water demand.

With the implementation of proposed project plans and identified mitigation measures, the proposed project would not be a substantial short- or long-term source of pollutants that would adversely affect downstream water resources. It is anticipated that similar requirements would be required for the construction of Reservoir No. 1 and proposed access road improvements. Therefore, cumulative water use and water quality impacts would be less than significant.

Mitigation and Residual Impact

The following mitigation measure would reduce the project's water resource impacts to a less than significant level:

5. **WatConv-04 Equipment Storage-Construction**. The Owner/Applicant shall designate a construction equipment filling and storage area(s) to contain spills, facilitate clean-up and proper disposal and prevent contamination from discharging to the storm drains, street, drainage ditches, creeks, or wetlands. The areas shall be no larger than 50 x 50 foot unless otherwise approved by P&D and shall be located at least 100 feet from any storm drain, water body or sensitive biological resources. **PLAN REQUIREMENTS:** The Owner/Applicant shall designate the P&D approved location on all plans for zoning clearance, grading and building permits. **TIMING:** The Owner/Applicant shall install the area prior to commencement of construction.

   MONITORING: P&D compliance monitoring staff shall ensure compliance prior to and throughout construction.

5.0 INFORMATION SOURCES

5.1 County Departments Consulted

Police, Fire, Public Works, Flood Control, Parks, Environmental Health, Air Pollution Control District, Special Districts, Regional Programs, Other :

5.2 Comprehensive Plan:

X	Seismic Safety/Safety Element	X	Conservation Element
	Open Space Element		Noise Element
	Coastal Plan and Maps		Circulation Element
	ERME		

5.3 Other Sources

X	Field work		Ag Preserve maps
X	Calculations	X	Flood Control maps
X	Project plans	X	Other technical references
	Traffic studies		(reports, survey, etc.)
	Records	X	Planning files, maps, reports
X	Grading plans	X	Zoning maps
	Elevation, architectural renderings	X	Soils maps/reports
X	Published geological map/reports	X	Plant maps
X	Topographical maps	X	Archaeological maps and reports
			Other

6.0 PROJECT SPECIFIC *(short- and long-term)* AND CUMULATIVE IMPACT SUMMARY

The proposed project does not have potential impacts that cannot be feasibly mitigated to less than significant levels.

I. Project-Specific Impacts which are of unavoidable significance levels (Class I): None

II. Project-Specific Impacts which are potentially significant but can be mitigated to less than significant levels (Class II): Biological Resources, Cultural Resources, Geologic Processes, Water Resources/Flooding.

III. No potentially significant adverse cumulative impacts have been identified.

7.0 MANDATORY FINDINGS OF SIGNIFICANCE

Will the proposal result in:	**Poten. Signif.**	**Less than Signif. with Mitigation**	**Less Than Signif.**	**No Impact**	**Reviewed Under Previous Document**
1. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, contribute significantly to greenhouse gas emissions or significantly increase energy consumption, or eliminate important examples of the major periods of California history or prehistory?		X			
2. Does the project have the potential to achieve short-term to the disadvantage of long-term environmental goals?			X		
3. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects.)			X		
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X			

Will the proposal result in:	Poten. Signif.	Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
5. Is there disagreement supported by facts, reasonable assumptions predicated upon facts and/or expert opinion supported by facts over the significance of an effect which would warrant investigation in an EIR ?			X		

Implementation of required mitigation measures would reduce potentially significant impacts to nesting birds to a less than significant level. Compliance with required mitigation would reduce potentially significant impacts to cultural resources to a less than significant level should any be encountered during construction activities; and would also reduce potential short-term construction-related water quality impacts to less than significant. The project's effects on air quality, noise, traffic, water demand, and public services would be below adopted thresholds of significance.

8.0 PROJECT ALTERNATIVES

Not applicable.

9.0 INITIAL REVIEW OF PROJECT CONSISTENCY WITH APPLICABLE SUBDIVISION, ZONING AND COMPREHENSIVE PLAN REQUIREMENTS

Zoning

The proposed project is consistent with the requirements of the Santa Barbara County Land Use and Development Code (Inland Zoning Ordinance). The proposed AG-II-100 zoning of the site allows for the development of reservoirs more than 50,000 square feet in area with the approval of a Minor Conditional Use Permit.

Comprehensive Plan

The project will be subject to all applicable requirements and policies under the Santa Barbara County Land Use and Development Code, the County's Comprehensive Plan, and the Santa Ynez Valley Community Plan. This analysis will be provided in the forthcoming Staff Report. The following policies will be addressed:

Comprehensive Plan Policies

1. Land Use Development Policy #4
2. Hillside & Watershed Protection policy # 1, 2, 3,5 and 5
3. Historical and Archaeological Policy # 2, 3 and 5
4. Visual Resources Policy # 2
5. Agricultural Element Goal 1.

Santa Ynez Valley Community Plan Policies

1. BIO-SYV-1, 3, 4, 5, 7 and 8
2. FLD-SYV-1 and 2
3. GEO-SYV-1 and 2
4. HA-SYV-1, 2 and 4
5. VIS-SYV-1

10.0 RECOMMENDATION BY P&D STAFF

On the basis of the Initial Study, the staff of Planning and Development:

___ Finds that the proposed project WILL NOT have a significant effect on the environment and, therefore, recommends that a Negative Declaration (ND) be prepared.

__X__ Finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures incorporated into the REVISED PROJECT DESCRIPTION would successfully mitigate the potentially significant impacts. Staff recommends the preparation of an ND. The ND finding is based on the assumption that mitigation measures will be acceptable to the applicant; if not acceptable a revised Initial Study finding for the preparation of an EIR may result.

____ Finds that the proposed project MAY have a significant effect on the environment, and recommends that an EIR be prepared.

____ Finds that from existing documents (previous EIRs, etc.) that a subsequent document (containing updated and site-specific information, etc.) pursuant to CEQA Sections 15162/15163/15164 should be prepared.

Potentially significant unavoidable adverse impact areas:

_____ With Public Hearing __X__ Without Public Hearing

PREVIOUS DOCUMENT:

PROJECT EVALUATOR: Steve Rodriguez DATE: May 22, 2019

11.0 DETERMINATION BY ENVIRONMENTAL HEARING OFFICER

__X__ I agree with staff conclusions. Preparation of the appropriate document may proceed.
____ I DO NOT agree with staff conclusions. The following actions will be taken:
____ I require consultation and further information prior to making my determination.

SIGNATURE: _____ **INITIAL STUDY DATE:** 05/22/2019

SIGNATURE: _____ **NEGATIVE DECLARATION DATE:** _____

SIGNATURE:_____ **REVISION DATE: _____**

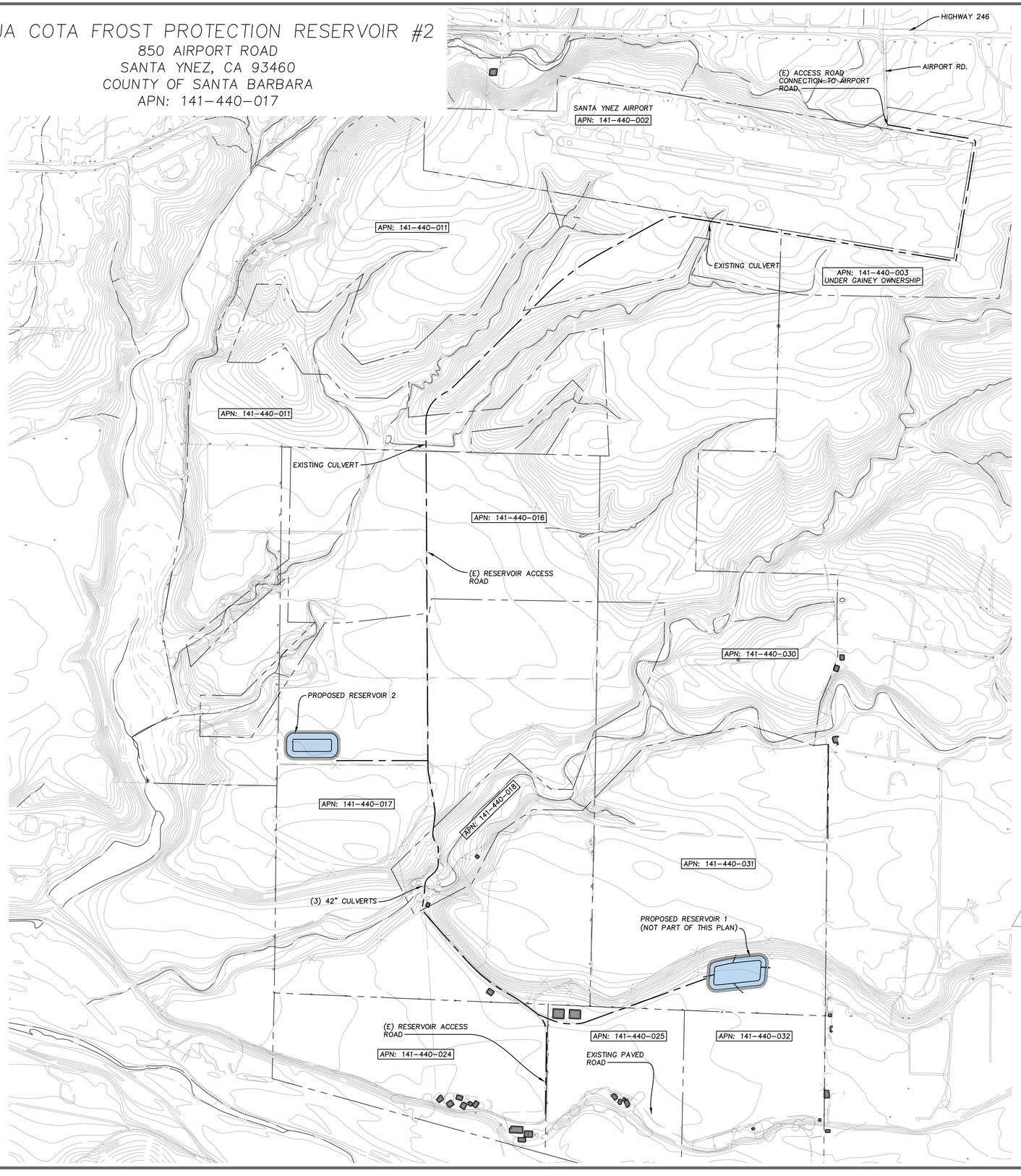
SIGNATURE:_____ **FINAL NEGATIVE DECLARATION DATE: _____**

12.0 ATTACHMENTS

1. Project Plans
2. Biological Assessment
3. Agricultural Preserve Advisory Committee Minutes
4. Santa Ynez Uplands Groundwater Basin Maps
5. Reservoir Evaporation Study
6. Assessor Parcel Map

SANJA COTA FROST PROTECTION RESERVOIR #2

850 AIRPORT ROAD
SANTA YNEZ, CA 93460
COUNTY OF SANTA BARBARA
APN: 141-440-017



LEGEND

- PROPOSED WATER (W)
- PROPOSED SEWER MAIN (S)
- PROPOSED STORM DRAIN (SD)
- PROPOSED CATCH BASIN
- PROPOSED FLOW LINE
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED HARDSCAPE
- PROPOSED GRAVEL
- PROPOSED RIPRAP
- PROPERTY LINE
- EASEMENT
- LIMITS OF GRADING

EROSIVITY WAIVER

Facility Information

- Start Date: 04/01/2019
- End Date: 09/20/2019
- Address: 850 airport road
- Latitude: 34.6106
- Longitude: -120.0696

Erosivity Index Calculator Results

An erosivity index value Of **4.96** has been determined for the construction period of **04/01/2019 - 09/20/2019**.

A rainfall erosivity factor of less than 5.0 has been calculated for your site and period of construction. Contact your permitting authority to determine if you are eligible for a waiver from NPDES permitting requirements. If you are covered under EPA's construction general permit then you can use eNOI to submit your low erosivity waiver certification.

If your construction activity extends past the project completion date you specified above, you must recalculate the R factor using the original start date and a new project completion date. If the recalculated R factor is still less than 5.0, a new waiver certification form must be submitted before the end of the original construction period. If the new R factor is 5.0 or greater, the operator must submit a Notice of Intent to be covered by the Construction General Permit before the original project completion date.

RESERVOIR STATISTICS

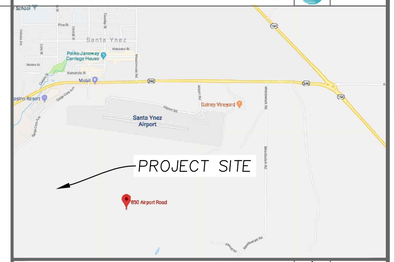
VOLUME:	40.65	AC-FT
POND SURFACE:	2.64	AC
WSE:	547.5	FT
TOP OF BANK:	550	FT
SAFETY BENCH:	547	FT
BOTTOM:	524	FT
CUT:	36,475	CY
FILL:	29,127	CY
NET:	7,348	CY (CUT)
TOTAL GRADED AREA:	192,217	SF

811 Know what's **below.** **Call** before you dig.

SCALE: 1"=1000'
0 1000 2000 3000

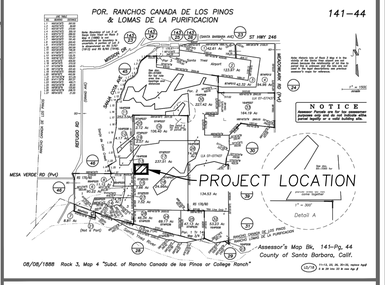
VICINITY MAP

N.T.S.



ASSESSORS PARCEL MAP

N.T.S.



PROJECT DATA

PROJECT ADDRESS:	850 AIRPORT ROAD SANTA YNEZ, CA 93460
CLIENT INFORMATION:	LONE CREEK VINEYARDS RANCHO SANJA COTA VINEYARD c/o MESA VINEYARD MANAGEMENT, INC. P.O. BOX 789 TEMPLETON, CA 93465
PROPOSED WORK:	DESIGN AND PERMIT AN IRRIGATION FROST PROTECTION RESERVOIR APPROXIMATELY 40.65 ACRE-FT IN STORAGE CAPACITY

GRADING STATISTICS

CUT	36,475	CY
FILL	29,127	CY
NET	7,348	CY (CUT)
TOTAL GRADED AREA	192,217	SF
	4.41	ACRES

EARTHWORK QUANTITIES ARE RAW VOLUMETRIC ESTIMATES FOR PERMITTING ONLY. EARTHWORK VOLUMES ARE CALCULATED FROM THE EXISTING GROUND SURFACE TO THE PROPOSED SUBGRADE. CONTRACTOR SHALL PERFORM INDEPENDENT EARTHWORK ANALYSIS FOR PRICING OR PAY PURPOSES. QUANTITIES ABOVE DO NOT INCLUDE CLEARING, GRUBBING, SUBSIDENCE, SHRINKAGE FACTORS OR OVEREXCAVATION QUANTITIES. EXPANSION FACTOR IS 1.2.

CONSULTANTS

CIVIL ENGINEER:	TODD ROBINSON, P.E. 75756 (805) 440-3348
GEOTECHNICAL ENGINEER:	RON J. CHURCH, G.E. #2184 PACIFIC COAST TESTING, INC.
SURVEY STATEMENT:	JED B. BLAKE, PLS 4786

THIS MAP IS A TRUE DEPICTION OF A FIELD SURVEY MADE BY THIS OFFICE AND MEETS THE STANDARDS OF MY PROFESSION FOR THE DATE THAT IT WAS PREPARED.

ABBREVIATIONS

AC	ASPHALT CONCRETE	N.T.S.	NOT TO SCALE
BW	BACK OF WALK	PP	POWER POLE
C	COMMUNICATIONS	RIM	TOP OF STRUCTURE
CLF	CHAIN LINK FENCE	S	SEWER
CO	CLEANOUT	SD	STORM DRAIN
E	ELECTRICAL	SDMH	STORM DRAIN MANHOLE
EP	EDGE OF PAVEMENT	SL	SEWER LATERAL
FF	FINISHED FLOOR	SSMH	SEWER MANHOLE
FG	FINISHED GRADE	STBK	SETBACK
FH	FIRE HYDRANT	TC	TOP OF CURB
FL	FLOW LINE	TF	TOP OF FOOTING
FS	FINISHED SURFACE	TG	TOP OF GRATE
FW	FIRE WATER	TP	TOP OF PIPE
G	GAS	TW	TOP OF WALL
GFF	GARAGE FINISHED FLOOR	U	DRY UTILITIES
GM	GAS METER	W	WATER
HP	HIGH POINT	WM	WATER METER
INV	INVERT	WV	WATER VALVE
LP	LOW POINT		

SHEET INDEX

COAST ENGINEERING & SURVEY, INC.
SAN LUIS OBISPO
CELL: (805) 440-3348
OFFICE: (805) 439-1820

REGISTERED PROFESSIONAL ENGINEER
TODD A. ROBINSON
No. 75756
CIVIL
STATE OF CALIFORNIA

REVISIONS:	DATE:	DESCRIPTION:
1	10/18/2018	COUNTY PLANNING COMMENTS

DRAWN KMS
CHECKED TAR

LOCATION
850 AIRPORT ROAD
SANTA YNEZ, CA
APN: 141-440-017

PROJECT NO.
17195

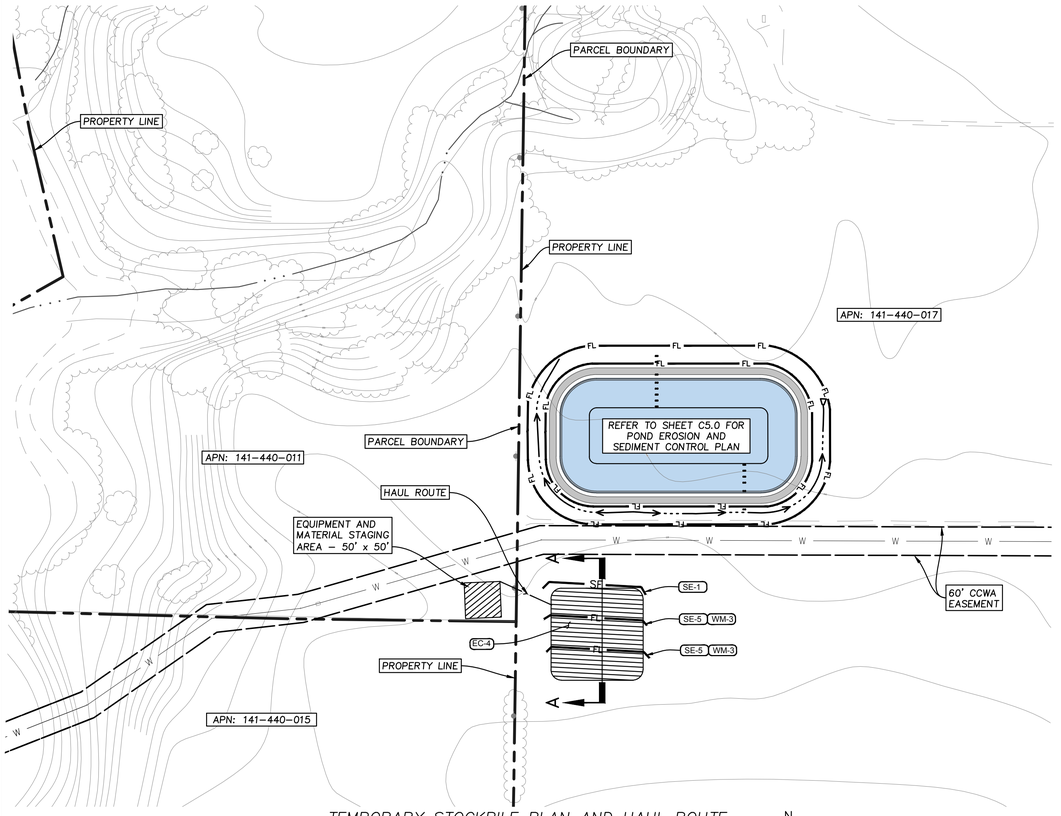
CLIENT
LONE CREEK VINEYARDS

SANJA COTA
FROST PROTECTION RESERVOIR #2
18CUP-00000-00028

TITLE SHEET

SHEET: C1.0 OF: 10

DATE: AUGUST 21, 2018



TEMPORARY STOCKPILE PLAN AND HAUL ROUTE
1"=150'

Know what's **below.**
Call before you dig.

BMP SELECTION AND LEGEND

BMP'S SPECIFIED ON THIS PLAN REFERENCE THE NOVEMBER 2009 EDITION OF THE CASQA "CALIFORNIA STORM WATER HANDBOOK. IT'S THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THE BMP DETAILS AVAILABLE AT WWW. CASQA.ORG.

THE FOLLOWING BMPS ARE NOT SHOWN IN THE SPECIFIC LOCATION ON THIS PLAN AND ARE APPLICABLE TO THE PROJECT. THE CONTRACTOR SHALL INCORPORATE THESE BMPS INTO THE PROJECT SCOPE.

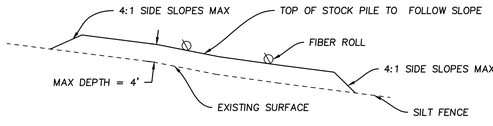
- EC-1 PROJECT SCHEDULING
- EC-2 PRESERVATION OF EXISTING VEGETATION
- NS-1 WATER CONSERVATION
- NS-2 DISCHARGE REPORTING
- NS-7 POTABLE WATER / IRRIGATION
- NS-8 VEHICLE CLEANING
- NS-9 VEHICLE FUELING
- NS-10 VEHICLE MAINTENANCE
- WE-1 WIND EROSION CONTROL

THE FOLLOWING BMPS ARE SPECIFIED ON THIS PLAN

- SE-5 FIBER ROLLS —— FL ——
- SE-1 SILT FENCE —— SF ——
- EC-4 NON-IRRIGATED HYDRO SEEDING
- WM-3 STOCKPILE MANAGEMENT

SEED MATRIX

		SLOPES LESS THAN 9% LBS/ACRE		SLOPES GREATER THAN 9% LBS/ACRE	
		DRILLED	BROADCAST	DRILLED	BROADCAST
GRASS MIX:	ZORRO ANNUAL FESCUE	4	6	12	18
	BLANDO BROME	10	12	10	12
	DRYLAND LEGUME MIX	12	15	15	20
NATIVE PERENNIAL GRASS MIX SUCH AS 2 OR 3 OF THE FOLLOWING VARIETIES: CALIFORNIA OATGRASS, CALIFORNIA MELIC, MEADOW BARLEY, OR BLUE WILDRYE		15	20	20	30



TYPICAL STOCKPILE SECTION A-A

SCALE: NTS

STOCKPILE CONSTRUCTION NOTES

1. STRIP TOPSOIL PRIOR TO PLACEMENT OF STOCK PILE MATERIAL.
2. KEY AND STOCKPILE TO EXISTING GROUND, WHEEL COMPACT DURING PLACEMENT.
3. SPREAD TOPSOIL ON TOP OF STOCKPILE AND SEED WITH NATIVE MIX.

AIR POLLUTION CONTROL MEASURES

1. ALL PORTABLE DIESEL-POWERED CONSTRUCTION EQUIPMENT SHALL BE REGISTERED WITH THE STATE'S PORTABLE EQUIPMENT REGISTRATION PROGRAM OR SHALL OBTAIN AN APCD PERMIT.
2. FLEET OWNERS OF MOBILE CONSTRUCTION EQUIPMENT ARE SUBJECT TO THE CALIFORNIA AIR RESOURCES BOARD (CARB) REGULATION FOR IN-USE OFF-ROAD DIESEL VEHICLES (TITLE 13, CALIFORNIA CODE OF REGULATIONS (CCR), §2449), THE PURPOSE OF WHICH IS TO REDUCE OXIDES OF NITROGEN (NOx), DIESEL PARTICULATE MATTER (DPM), AND OTHER CRITERIA POLLUTANT EMISSIONS FROM IN-USE OFF-ROAD DIESEL-FUELED VEHICLES. OFF-ROAD HEAVY-DUTY TRUCKS SHALL COMPLY WITH THE STATE OFF-ROAD REGULATION. FOR MORE INFORMATION, SEE WWW.ARB.CA.GOV/MSPROG/ORDIESEL/ORDIESEL.HTM.
3. FLEET OWNERS OF MOBILE CONSTRUCTION EQUIPMENT ARE SUBJECT TO THE CALIFORNIA CARB REGULATION FOR IN-USE (ON-ROAD) HEAVY DUTY DIESEL-FUELED VEHICLES (TITLE 13, CCR, §2025), THE PURPOSE OF WHICH IS TO REDUCE NOx, DPM, AND OTHER CRITERIA POLLUTANT EMISSIONS FROM IN-USE ON-ROAD DIESEL-FUELED VEHICLES. ON-ROAD HEAVY-DUTY TRUCKS SHALL COMPLY WITH THE STATE ON-ROAD REGULATION. FOR MORE INFORMATION, SEE WWW.ARB.CA.GOV/MSPROG/ONRDIESEL/ONRDIESEL.HTM.
4. ALL COMMERCIAL OFF-ROAD AND ON-ROAD DIESEL VEHICLES ARE SUBJECT, RESPECTIVELY, TO TITLE 13, CCR, §2449(d)(3) AND §2485, LIMITING ENGINE IDLING TIME. IDLING OF HEAVY DUTY DIESEL CONSTRUCTION EQUIPMENT AND TRUCKS DURING LOADING AND UNLADING SHALL BE LIMITED TO FIVE MINUTES; ELECTRIC AUXILIARY POWER UNITS SHOULD BE USED WHENEVER POSSIBLE.

SPECIFICATIONS FOR PRESERVATION OF EXISTING OAK TREES

1. ALL WORK WITHIN THE DRIPLINES OF OAK TREES SHALL BE BY HAND AND PERFORMED ONLY AS APPROVED OR DIRECTED BY THE LANDSCAPE ARCHITECT OR A QUALIFIED ARBORIST.
2. ALL ROOTS ENCOUNTERED DURING TRENCHING OPERATIONS SHALL BE CLEANLY CUT. ROOTS OVER TWO INCHES IN DIAMETER SHALL BE SEALED WITH APPROVED TREE SEAL. TRENCHES FOR ALL CURBS AND WALLS ADJACENT TO OAK TREES SHALL BE BACK FILLED WITH POROUS TOPSOIL FROM ONSITE.
3. WHERE WALLS OR CURBS ARE TO BE BUILT WITHIN SIX FEET OF THE TRUNK OF ANY OAK TREE, A ROOT CONTROL BARRIER (DEEP ROOT OR EQUAL) SHALL BE PLACED BETWEEN THE TREE AND THE WALL OR CURB. BARRIER SHALL EXTEND FROM GROUND SURFACE TO BOTTOM OF NEW STRUCTURE.
4. ANY CURB OR WALL ADJACENT TO A TREE SHALL BE BUILT WITH FOOTINGS DIRECTED OUTWARD FROM THE TREE TO AVOID DAMAGING ROOTS. WHERE FEASIBLE, FOOTINGS SHALL BE BRIDGED OVER THE ROOT ZONE.
5. A TEMPORARY FENCE OF CHAIN LINK OR OTHER APPROVED FABRIC SHALL BE ERECTED AROUND EACH TREE OR BETWEEN THE TREE AND THE PROPOSED CONSTRUCTION AS SHOWN ON THE PLANS. THE HEIGHT OF THE FENCE SHALL BE NO LESS THAN SIX FEET. FENCE SUPPORT POSTS SHALL BE INSTALLED AT A MAXIMUM SPACING OF EIGHT FEET.
6. WHERE CONSTRUCTION IS TO OCCUR WITHIN THE DRIPLINE OF A TREE, THE FENCE SHALL BE ERECTED NO FURTHER THAN FIVE FEET FROM THE EDGE OF THE WORK. WHERE CONSTRUCTION IS TO OCCUR OUTSIDE THE DRIPLINE OF A TREE THE FENCE SHALL BE ERECTED AT THE LIMIT OF THE WORK OR SIX FEET OUTSIDE THE DRIPLINE.
7. FENCING CONSTRUCTED ABOVE (UPHILL) TREES SHALL INCLUDE 'SILT STOP" FABRIC, SECURELY ATTACHED TO THE FENCE FABRIC 'SILT STOP' SHALL BE INSTALLED WITH THE BOTTOM 6" BELOW GRADE.
8. AT LOCATIONS WHERE FENCE DOES NOT SURROUND TREES, THE FENCE MUST EXTEND AT LEAST TEN FEET BEYOND THE DRIPLINE, AND A SIGN SHALL BE SECURELY ATTACHED ATEACH END OF THE FENCE, STATING "NO CONSTRUCTION OR STORAGE OF ANY KIND BEYOND FENCE" IN BOTH ENGLISH AND SPANISH ("NO SE PERMITE CONSTRUCION O' ALMACENACE DE QUALQUIERA TIPO MAS DE ESTE SURCO"). SIGNS SHALL BE AT LEAST TWO SQUARE FEET IN AREA.
9. NO CHEMICALS OR HERBICIDES MAY BE APPLIED WITHIN FIFTY FEET OF ANY TREE WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT OR ARBORIST.
10. LANDSCAPING ADJACENT TO ANY TREE SHALL BE LIMITED TO INERT MATERIALS OR PLANTS WITH SIMILAR CULTURAL REQUIREMENTS TO THE TREE. NO LANDSCAPING SHALL OCCUR WITHIN THE DRIPLINES OF EXISTING OAKS.
11. NO CONSTRUCTION EQUIPMENT, VEHICLES, OR MATERIALS SHALL BE PARKED OR STORED WITHIN 6 FEET OF ANY OAK TREE DRIPLINE.
12. NO FILL SOIL OR ROCKS SHALL BE STORED WITHIN 3 FEET OF ANY OAK TREE DRIPLINE.
13. ANY ALTERATION OF GRADES SHALL RESULT IN POSITIVE DRAINAGE AWAY FROM AFFECTED TREES.
14. DUST AND DIRT SHALL BE WASHED OFF ALL TREES WITHIN FIFTY FEET OF THE CONSTRUCTION AREA AT FOUR-WEEK INTERVALS, MAY THROUGH OCTOBER, AND AT THE END OF THE CONSTRUCTION PERIOD. WASHING SHALL OCCUR IN THE MORNING TO ALLOW THE TREE TO DRY DURING THE DAY.
15. PRUNING OF TREES SHALL BE PERFORMED ONLY UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT OR ARBORIST.
16. NO IRRIGATION OR UTILITY LINES SHALL BE INSTALLED WITHIN FIFTEEN FEET OF THE TRUNK OF ANY OAK TREE, EXCEPT DRIP-IRRIGATION TUBING LAID ON THE SURFACE OF THE GROUND. IN NO CASE SHALL IRRIGATION OCCUR WITHIN THREE FEET OF THE TRUNK OF THE TREE.
17. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR ALL EXISTING OAK TREES SHOWN ON THIS PLAN. ANY TREE REMOVED OR IRREPARABLY DAMAGED DURING CONSTRUCTION MUST BE REPLACED.
18. PHOTOGRAPHIC DOCUMENTATION OF THE FENCING OF THE TREES SHALL BE PROVIDED TO THE PLANNING AND DEVELOPMENT DEPARTMENT, COUNTY OF SANTA BARBARA, PRIOR TO START OF CONSTRUCTION.
19. PROTECTIVE FENCING MAY NOT BE REMOVED UNTIL THE CERTIFICATE OF OCCUPANCY IS OBTAINED FROM THE COUNTY OF SANTA BARBARA.
20. PROTECTIVE FENCING MAY NOT BE REMOVED UNTIL COMPLETION OF GRADING AND INSTALLATION OF THE IRRIGATION SYSTEM, PRIOR TO HYDROSEEDING.
21. ALL REPLACEMENT TREES SHALL BE MAINTAINED AND, IF NECESSARY, REPLACED DURING THE THREE YEAR BONDING PERIOD. AT THE END OF THE BONDING PERIOD, A MINIMUM OF 50% OF THE REPLACEMENT TREES MUST BE ESTABLISHED (ABILITY TO SURVIVE WITHOUT SUPPLEMENTAL IRRIGATION). IF 50% ARE NOT ESTABLISHED, A NEW BONDING PERIOD OF TWO YEARS WILL BE REQUIRED. DEFINITIONS: CANOPY - THE AREA OF GROUND WITHIN THE DRIPLINE OF THE TREE. DAYLIGHT LINE - THE POINT AT WHICH NEW GRADING MEETS EXISTING GRADE. DRIPLINE - THE OUTER EDGE OF A TREE'S BRANCHING AND FOLIAGE.

DUST CONTROL

1. DUST CONTROL MEASURES CAPABLE OF PREVENTING THE MIGRATION OF DIRT AND DUST OFF-SITE, IN A MANNER ACCEPTABLE TO THE AGENCY SHALL BE IMPLEMENTED AND MAINTAINED DURING ALL CONSTRUCTION, EARTH MOVING, AND GRADING PHASES OF THE PROJECT. FAILURE TO DO SO WILL RESULT IN THE ISSUANCE OF A "STOP WORK" ORDER WHICH WILL NOT BE RELEASED UNTIL SUCH TIME AS AN ADEQUATE PROGRAM IS IMPLEMENTED.
2. DUST GENERATED BY DEVELOPMENT ACTIVITIES SHALL BE KEPT TO A MINIMUM WITH A GOAL OR RETAINING DUST ON THE SITE BY FOLLOWING THE DUST CONTROL MEASURES LISTED BELOW:
   - 2.1. DURING CLEANING, GRADING, EARTH MOVING, EXCAVATION, OR TRANSPORTATION OF CUT OR FILL MATERIALS, WATER TRUCKS OR SPRINKLER SYSTEMS ARE TO BE USED TO PREVENT DUST FORM LEAVING THE SITE AND TO CREATE A CRUST AFTER EACH DAY'S ACTIVITIES CEASE.
   - 2.2. DURING CONSTRUCTION, WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED TO KEEP ALL AREAS OF VEHICLE MOVEMENT DAMP ENOUGH TO PREVENT DUST FROM LEAVING THE SITE. AT MINIMUM, THIS WOULD INCLUDE WETTING DOWN SUCH AREAS IN THE LATER MORNING AND AFTER WORK IS COMPLETED FOR THE DAY AND WHENEVER WIND EXCEEDS 15 MILES PER HOUR.
   - 2.3. MINIMIZE AMOUNT OF DISTURBED AREA AND REDUCE ONSITE VEHICLE SPEEDS TO 15 MILES PER HOUR OR LESS.
   - 2.4. GRAVEL PADS SHALL BE INSTALLED AT ALL ACCESS POINTS TO PREVENT TRACKING OF MUD ONTO PUBLIC ROADS.
   - 2.5. ANY TEMPORARY STOCKPILES OF EARTH OR DEBRIS SHALL BE APPROVED BY THE AGENCY AND SHALL NOT OBSTRUCT DRAINAGE OR CREATE BLOWING DUST.
   - 2.6. THE CONTRACTOR OR BUILDER SHALL DESIGNATE A PERSON OR PERSONS TO MONITOR THE DUST CONTROL PROGRAM AND TO ORDER INCREASED WATERING, AS NECESSARY, TO PREVENT TRANSPORT OF DUST OFFSITE. THEIR DUTIES SHALL INCLUDE HOLIDAY AND WEEKEND PERIODS WHEN WORK MAY NOT BE IN PROGRESS. THE NAME AND TELEPHONE NUMBER OF SUCH PERSONS SHALL BE APPROVED BY THE AGENCY AND PROVIDED TO THE AIR POLLUTION CONTROL BOARD PRIOR TO GRADING/BUILDING PERMIT ISSUANCE AND/OR MAP CLEARANCE.

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR

1. ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR AND THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS "CONSTRUCTION SAFETY ORDERS." THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTORS AND SUBCONTRACTORS COMPLIANCE WITH SAID REGULATIONS AND ORDERS.
2. CONTRACTOR FURTHER AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB-SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE CIVIL ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

CONSTRUCTION CERTIFICATION

1. PRIOR TO FINAL INSPECTION, THE GEOTECHNICAL ENGINEER SHALL PROVIDE A LETTER CERTIFYING THAT THE EARTHWORK HAS BEEN INSPECTED DURING CONSTRUCTION AND CONFORMS TO THE RECOMMENDATIONS IN THE GEOTECHNICAL ENGINEERING REPORT. ANY MODIFICATION TO THE REPORT RECOMMENDATIONS SHALL BE CLARIFIED IN A LETTER PROVIDED.
2. PRIOR TO FINAL INSPECTION, THE ENGINEER OF RECORD SHALL PROVIDE A LETTER CERTIFYING THAT THE RESERVOIR CONSTRUCTION PROJECT WAS INSPECTED DURING CONSTRUCTION AND WAS COMPLETED IN SUBSTANTIAL CONFORMANCE TO THE APPROVED PLANS. ANY MODIFICATION TO THE REPORT RECOMMENDATIONS SHALL BE CLARIFIED IN A LETTER PROVIDED.

TABLE 1705.6 REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	---	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	---	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	---	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	--
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	---	X

NOTE: ALL TESTING AND REPORTING TO BE PERFORMED BY A LICENSED SOILS ENGINEER / ENGINEERING GEOLOGIST AND SHALL COMPLETE A REPORT AND MAP UPON COMPLETION OF THE ROUGH GRADING.

SANTA BARBARA COUNTY BUILDING & SAFETY DIVISION GRADING NOTES

1. ALL GRADING SHALL CONFORM TO SANTA BARBARA COUNTY CODE CHAPTER 14 AND STANDARDS AND REQUIREMENTS PERTAINING THERETO, THESE CONSTRUCTION DRAWINGS AND THE RECOMMENDATIONS OF THE SOILS ENGINEER AND ENGINEERING GEOLOGIST.
2. CONTRACTOR TO NOTIFY THE COUNTY GRADING INSPECTOR AND SOILS LABORATORY AT LEAST 48 HOURS BEFORE START OF GRADING WORK OR ANY PRE-CONSTRUCTION MEETING.
3. CONTRACTOR SHALL EMPLOY ALL LABOR, EQUIPMENT AND METHODS REQUIRED TO PREVENT HIS OPERATIONS FROM PRODUCING DUST IN AMOUNTS DAMAGING TO ADJACENT PROPERTY, CULTIVATED VEGETATION AND DOMESTIC ANIMALS OR CAUSING A NUISANCE TO PERSONS OCCUPYING BUILDINGS IN THE VICINITY OF THE JOB SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE CAUSED BY DUST FROM HIS GRADING OPERATION.
4. BEFORE BEGINNING WORK REQUIRING EXPORTING OR IMPORTING OF MATERIALS, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM PUBLIC WORKS ROAD DIVISION FOR HAUL ROUTES USED AND METHODS PROVIDED TO MINIMIZE THE DEPOSIT OF SOILS ON COUNTY ROADS. GRADING/ROAD INSPECTORS SHALL MONITOR THIS REQUIREMENT WITH THE CONTRACTOR.
5. THE GEOTECHNICAL ENGINEER SHALL PROVIDE OBSERVATION AND TESTING DURING GRADING OPERATIONS IN THE FIELD AND SHALL SUBMIT A FINAL REPORT STATING THAT ALL EARTH WORK WAS PROPERLY COMPLETED AND IS IN SUBSTANTIAL CONFORMANCE WITH THE REQUIREMENTS OF THE GRADING ORDINANCE.
6. AREAS TO BE GRADED SHALL BE CLEARED OF ALL VEGETATION INCLUDING ROOTS AND OTHER UNSUITABLE MATERIAL FOR A STRUCTURAL FILL, THEN SCARIFIED TO A DEPTH OF 6"OR PER GEOTECHNICAL ENGINEER'S RECOMMENDATION (WHICHEVER IS GREATER), PRIOR TO PLACING OF ANY FILL. CALL GRADING INSPECTOR FOR INITIAL INSPECTION.
7. A THOROUGH SEARCH SHALL BE MADE FOR ALL ABANDONED MAN-MADE FACILITIES SUCH AS SEPTIC TANK SYSTEMS, FUEL OR WATER STORAGE TANKS, AND PIPELINES OR CONDUITS. ANY SUCH FACILITIES ENCOUNTERED SHALL BE REMOVED AND THE DEPRESSION PROPERLY FILLED AND COMPACTED UNDER OBSERVATION OF THE GEOTECHNICAL ENGINEER.
8. AREAS WITH EXISTING SLOPES WHICH ARE TO RECEIVE FILL MATERIAL SHALL BE KEYED AND BENCHED. THE DESIGN AND INSTALLATION OF THE KEYWAY SHALL BE PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATION OR PER COUNTY STANDARD DETAIL NO. G-13.
9. FILL MATERIAL SHALL BE SPREAD IN LIFTS NOT EXCEEDING 6"IN COMPACTED THICKNESS, MOISTENED OR DRIED AS NECESSARY TO NEAR OPTIMUM MOISTURE CONTENT AND COMPACTED BY AN APPROVED METHOD. FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DENSITY AS DETERMINED BY 1957 ASTM D -1557 -91 MODIFIED PROCTOR (AASHO) TEST OR SIMILAR APPROVED METHODS. SOME FILL AREAS MAY REQUIRE COMPACTION TO A GREATER DENSITY IF CALLED FOR IN THE CONSTRUCTION DOCUMENTS. SOIL TESTS SHALL BE CONDUCTED AT NOT LESS THAN ONE TEST FOR EACH 18"OF FILL AND/OR FOR EACH 500 CUBIC YARDS OF FILL PLACED.
10. CUT SLOPES SHALL NOT EXCEED A GRADE OF 2 ½ HORIZONTAL TO 1 VERTICAL. FILL AND COMBINATION FILL AND CUT SLOPES SHALL NOT EXCEED 2 ½ HORIZONTAL TO 1 VERTICAL. SLOPES OVER THREE FEET IN VERTICAL HEIGHT SHALL BE PLANTED WITH APPROVED PERENNIAL OR TREATED WITH EQUALLY APPROVED EROSION CONTROL MEASURES PRIOR TO FINAL INSPECTION.
11. SURFACE DRAINAGE SHALL BE PROVIDED AT A MINIMUM OF 5% FOR 10 FEET AWAY FROM THE FOUNDATION LINE OR ANY STRUCTURE.
12. ALL TREES THAT ARE TO REMAIN ON SITE SHALL BE TEMPORARILY FENCED AND PROTECTED AROUND THE DRIP LINE DURING GRADING.
13. AN EROSION AND SEDIMENT CONTROL PLAN SHALL BE REQUIRED AS PART OF THE GRADING PLAN AND PERMIT REQUIREMENTS.
14. 'BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES: ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ONSITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR ROADS. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS MUST BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED AS A SOLID WASTE. TRASH AND CONSTRUCTION RELATED SOLID WASTE MUST BE DEPOSITED INTO A COVERED WASTE RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY ROADS. SEDIMENTS AND OTHER MATERIAL MAY NOT BE TRACKED FROM TO THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITION MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS. ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO MINIMIZE EROSION BY WIND AND WATER.'
15. IF GRADING OCCURS DURING NOV 1 THROUGH APR 15, NO GRADING SHALL OCCUR UNLESS APPROVED EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE. DISCHARGES OF SEDIMENT FROM THE PROJECT SITE MAY RESULT IN A "STOP WORK ORDER".
16. ALL EARTHWORK ON HILLSIDES, SLOPING OR MOUNTAINOUS TERRAIN SHALL BE STABILIZED TO PROTECT AND PREVENT LOSS OF SOILS, AS NECESSARY, YEAR-ROUND.

CAUTION!

CONTRACTOR IS TO HAVE ALL UNDERGROUND UTILITIES FIELD MARKED PRIOR TO ANY EXCAVATION.

COAST
ENGINEERING & SURVEY, INC.
SAN LUIS OBISPO
CELL: (805) 440-3348
OFFICE: (805) 439-1820

REGISTERED PROFESSIONAL ENGINEER
TODD A. ROBINSON
No. 75756
CIVIL
STATE OF CALIFORNIA

REVISIONS:	DATE:	DESCRIPTION:
1	10/18/2018	COUNTY PLANNING COMMENTS

DRAWN KMS
CHECKED TAR

LOCATION
850 AIRPORT ROAD
SANTA YNEZ, CA
APN: 141-440-017

PROJECT NO.
17195

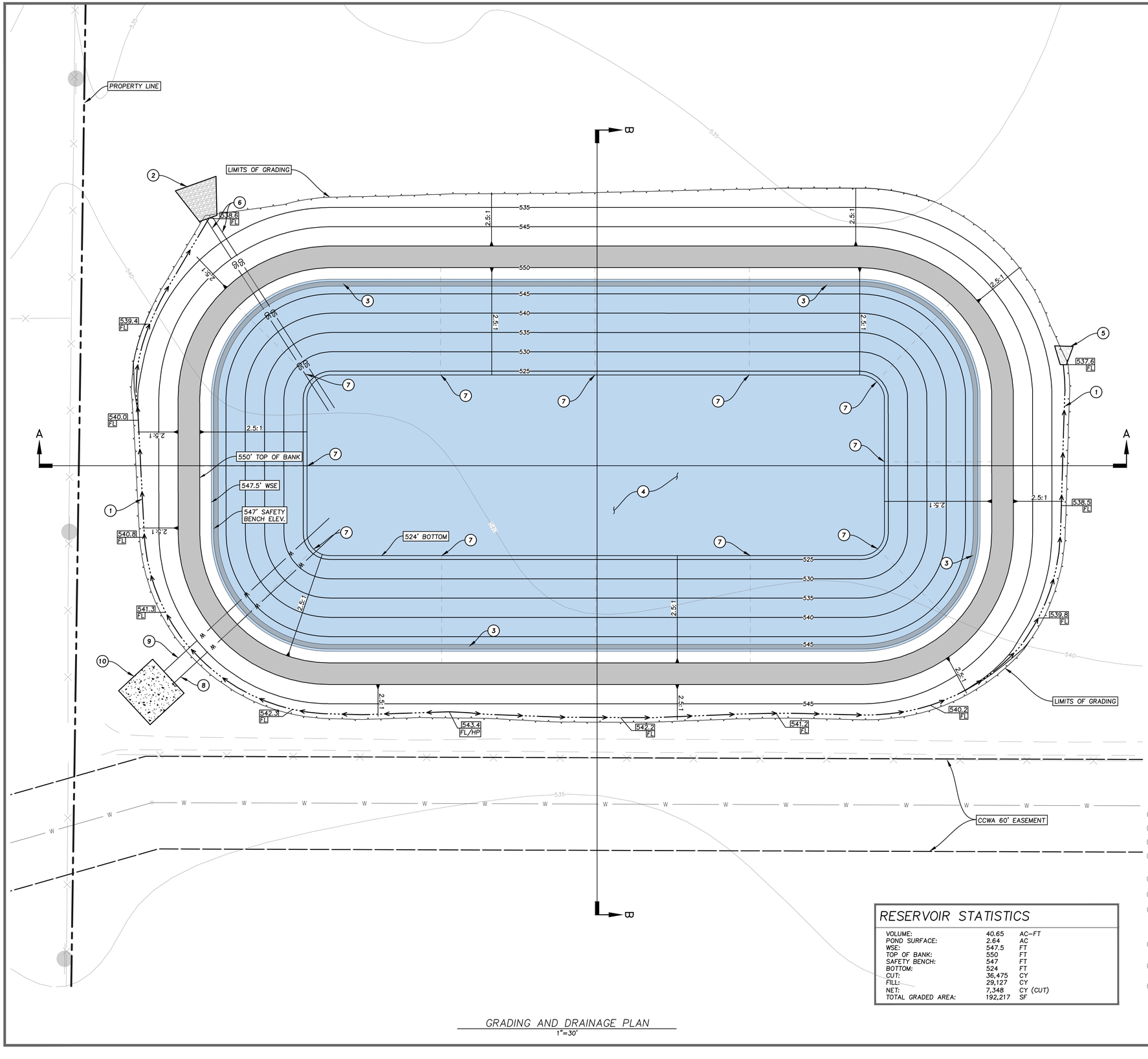
CLIENT
LONE CREEK VINEYARDS

SANJA COTA
FROST PROTECTION RESERVOIR #2
18CUP-00000-00028

STOCKPILE PLAN

SHEET: C1.1
OF: 10

DATE: AUGUST 21, 2018



GRADING AND DRAINAGE PLAN
1"=30'

GENERAL GRADING NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION AND AMENDMENTS OF THE CALIFORNIA BUILDING CODE. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE APPLICABLE CITY/COUNTY STANDARDS AND CALTRANS STANDARD SPECIFICATIONS, LATEST ADOPTED EDITION AND AMENDMENTS. IN THE EVENT THAT THERE IS A CONFLICT BETWEEN CODES, THE CONTRACTOR WILL NOTIFY THE CIVIL ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION. WORK SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING:

   1.1. CBC LATEST EDITION
   1.2. THE SOILS ENGINEERING REPORT
   1.3. NRCS PRACTICES REFERENCE

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEARING AND DISPOSAL OF THE PROPOSED WORK AREA. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIAL LEGALLY AND IS RESPONSIBLE FOR COMPLYING WITH LOCAL RECYCLING ORDINANCES.
3. NO FILL SHALL BE PLACED ON THE EXISTING GROUND SURFACE UNTIL THE GROUND HAS BEEN CLEARED OF WEEDS, DEBRIS, TOPSOIL, DELETERIOUS MATERIAL AND SCARIFIED AND COMPACTED PER THE GEOTECHNICAL RECOMMENDATIONS.
4. CUT AND FILL SLOPES SHALL CONFORM TO GEOTECHNICAL REPORT.
5. FILLS SHALL BE COMPACTED TO THE MINIMUM 95% PERCENTAGE OF MAXIMUM DRY DENSITY AS SPECIFIED IN THE PROJECT SOILS REPORT AND CERTIFIED BY THE GEOTECHNICAL ENGINEER.
6. ALL EXISTING FILLS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER BEFORE ANY ADDITIONAL FILLS ARE ADDED.
7. ALL EXPOSED SLOPES SHALL BE PLANTED PER THE PROJECT EROSION SEDIMENT CONTROL PLANS AND IRRIGATED UNTIL GROUND COVER IS ESTABLISHED.
8. THE STOCKPILING OF EXCESS MATERIAL IS SUBJECT TO THE APPROVAL OF THE RCD.
9. ALL TRENCH BACKFILLS SHALL BE TESTED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
10. ALL CUT SLOPES SHALL BE INVESTIGATED BY THE GEOTECHNICAL ENGINEER DURING GRADING TO DETERMINE IF ANY SLOPE STABILITY PROBLEMS EXIST. SHOULD EXCAVATION DISCLOSE ANY GEOTECHNICAL HAZARDS OR POTENTIAL GEOTECHNICAL HAZARDS, THE GEOTECHNICAL ENGINEER SHALL RECOMMEND NECESSARY TREATMENT TO THE CONTRACTOR.
11. THE FINAL COMPACTION REPORT AND APPROVAL FROM THE GEOTECHNICAL ENGINEER SHALL CONTAIN DETAILS REGARDING THE TYPE OF FIELD TESTING PERFORMED INCLUDING THE METHOD OF OBTAINING THE IN-PLACE DENSITY, WHETHER SAND CONE, NUCLEAR GAUGE, OR DRIVE RING SHALL BE NOTED FOR EACH TEST. SUFFICIENT MAXIMUM DENSITY DETERMINATIONS SHALL BE PERFORMED TO VERIFY THE ACCURACY OF THE MAXIMUM DENSITY CURVES USED BY THE FIELD TECHNICIAN.
12. SANITARY FACILITIES SHALL BE MAINTAINED ON SITE THROUGHOUT THE DURATION OF CONSTRUCTION.
13. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF AND PROTECT ALL EXISTING UTILITIES TO ENSURE THAT SERVICE IS NOT DISRUPTED TO EXISTING FACILITIES.
14. ALL EXISTING DRAINAGE COURSES ON THE PROJECT SITE MUST CONTINUE TO FUNCTION, ESPECIALLY DURING STORM CONDITIONS AND APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT EXISTING STRUCTURES AND ADJACENT PROPERTIES DURING THE CONSTRUCTION PROJECT. IN ALL CASES, THE CONTRACTOR AND/OR OWNER SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING OR ALTERING EXISTING DRAINAGE PATTERNS.
15. EXPORTED MATERIAL SHALL BE TAKEN TO A LEGAL DUMP SITE OR PERMITTED RECEIVING SITE APPROVED BY THE LOCAL AGENCY HAVING JURISDICTION.
16. ANY DIRT, ROCK, DEBRIS OR CONSTRUCTION MATERIAL THAT IS TRACKED OR DROPPED WITHIN THE PUBLIC RIGHT OF WAY DURING THE TRANSPORTATION OF THAT MATERIAL OR EQUIPMENT ASSOCIATED WITH THE PROJECT SHALL BE CLEANED OR REMOVED DAILY.
17. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND OBTAINING REQUIRED PERMITS FROM THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
18. CALIFORNIA AIR RESOURCES BOARD REGULATION RULE 403 AIR QUALITY CONTROL MUST BE IMPLEMENTED DURING CONSTRUCTION.
19. CONSTRUCTION ACTIVITIES SHALL OCCUR ONLY BETWEEN THE HOURS OF 7:00 AM AND 7:00 PM, MONDAY THROUGH FRIDAY AND BETWEEN THE HOURS OF 9:00 AM AND 6:00 PM ON SATURDAYS, UNLESS OTHERWISE AUTHORIZED BY THE OWNER AND COUNTY.
20. CONTRACTOR SHALL USE LOW EMISSIONS MOBILE CONSTRUCTION EQUIPMENT DURING ALL SITE PREPARATION, GRADING AND CONSTRUCTION ACTIVITIES.
21. CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION ENGINES TUNED CONSISTENT WITH MANUFACTURER'S SPECIFICATIONS DURING ALL SITE PREPARATION, GRADING AND CONSTRUCTION ACTIVITIES.
22. THE SPEED OF CONSTRUCTION VEHICLES ON-SITE SHALL BE LIMITED TO 15 MILES PER HOUR.
23. THE CONTRACTOR SHALL CONTROL DUST IN AREAS USED FOR OFF-PAVEMENT PARKING, MATERIAL LAY DOWN AREAS OR THOSE AREAS AWAITING FUTURE CONSTRUCTION.
24. CONTRACTOR SHALL IMPLEMENT THE FOLLOWING HIGH WIND DUST CONTROL MEASURES WHEN INSTANTANEOUS WIND SPEEDS EXCEED 25 MPH:

   24.1. TERMINATION OF SCRAPES, GRADERS OR DOZERS ON UNPAVED SURFACES UNTIL WINDS SUBSIDE.
   24.2. APPLICATION OF WATER AS NEEDED.

25. EXISTING SURVEY MONUMENTS SHALL BE NOTED AND DOCUMENTED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. DISTURBED MONUMENTS SHALL BE RESET BY A LICENSED LAND SURVEYOR AT NO ADDITIONAL COST TO THE PROJECT.
26. FILLS TOEING OUT ON NATURAL SLOPES SHALL BE MADE NOT NEARER TO A ROAD RIGHT-OF-WAY OR THE SITE BOUNDARY THAN ONE-HALF THE HEIGHT OF THE SLOPE WITH A MINIMUM OF TWO FEET AND A MAXIMUM OF TWENTY FEET. WHERE A FILL SLOPE IS TO BE LOCATED NEAR A ROAD RIGHT-OF-WAY, OR THE SITE BOUNDARY AND THE ADJACENT OFF-SITE PROPERTY IS DEVELOPED, SPECIAL PRECAUTIONS, INCLUDING, WITHOUT LIMITATION, ADDITIONAL SETBACK, RETAINING OR SLOUGH WALLS, MECHANICAL OR CHEMICAL TREATMENT OF THE SURFACE, AND PROVISIONS TO CONTROL SURFACE WATERS, SHALL BE INCORPORATED INTO THE WORK, AS THE BUILDING OFFICIAL MAY REQUIRE, TO PROTECT THE ADJOINING PROPERTY FROM DAMAGE AS A RESULT OF SUCH GRADING. FILL SLOPES SHALL NOT BE DIVIDED HORIZONTALLY BY PROPERTY LINES. THE BUILDING OFFICIAL MAY REQUIRE AN INVESTIGATION AND RECOMMENDATION BY A CIVIL ENGINEER, GEOTECHNICAL ENGINEER OR AN ENGINEERING GEOLOGIST TO DEMONSTRATE THAT THE PROVISIONS OF SB 14-26 HAVE BEEN SATISFIED. THE BUILDING OFFICIAL MAY MAKE ADJUSTMENTS AS A CONDITION OF THE PERMIT, AS REQUIRED BY INDIVIDUAL SITE CONDITIONS.

CONSTRUCTION NOTES

1. CONSTRUCT NEW SWALE PER DETAIL D SHEET 2.1.
2. CONSTRUCT ENERGY DISSIPATION DEVICE PER DETAIL C SHEET 2.1 .
3. CONSTRUCT EMERGENCY EGRESS BENCH & LINER ANCHOR PER DETAIL I SHEET 2.2.
4. CONSTRUCT RESERVOIR WITH SMOOTH BLACK, 40MIL THICK HDPE LINER (OR GSE HD SMOOTH APPROVED EQUAL) AS SHOWN ON THIS PLAN AND PER MANUFACTURER'S RECOMMENDATIONS.
5. CONSTRUCT ENERGY DISSIPATION DEVICE PER DETAIL E SHEET 2.1.
6. CONSTRUCT 2 – 24" DIAMETER OVERFLOW PIPE PER DETAIL L SHEET 2.2.
7. INSTALL EMERGENCY EGRESS LADDER (POLYESTER ESCAPE ROPE LADDER OR APPROVED EQUAL). 12 TOTAL, EVENLY SPACED AROUND RESERVOIR AND SECURELY ANCHORED TO TOP OF BANK. LADDER TYPE AND INSTALLATION METHOD SHALL BE APPROVED BY RESERVOIR LINER MANUFACTURER.
8. CONSTRUCT SUPPLY LINE FROM PUMP PAD PER DETAIL K SHEET 2.2, CONTRACTOR TO VERIFY PIPE DIAMETER WITH AG SPECIALIST PRIOR TO BIDDING AND CONSTRUCTION.
9. CONSTRUCT 12" DIAMETER OUTLET PIPE TO PUMP PAD PER DETAIL J SHEET 2.2, CONTRACTOR TO VERIFY PIPE DIAMETER WITH AG SPECIALIST PRIOR TO BIDDING AND CONSTRUCTION.
10. CONSTRUCT PUMP PAD.

RESERVOIR STATISTICS

VOLUME:	40.65	AC-FT
POND SURFACE:	2.64	AC
WSE:	547.5	FT
TOP OF BANK:	550	FT
SAFETY BENCH:	547	FT
BOTTOM:	524	FT
CUT:	36,475	CY
FILL:	29,127	CY
NET:	7,348	CY (CUT)
TOTAL GRADED AREA:	192,217	SF

N
SCALE: 1"=30'
0 30 60 90

COAST
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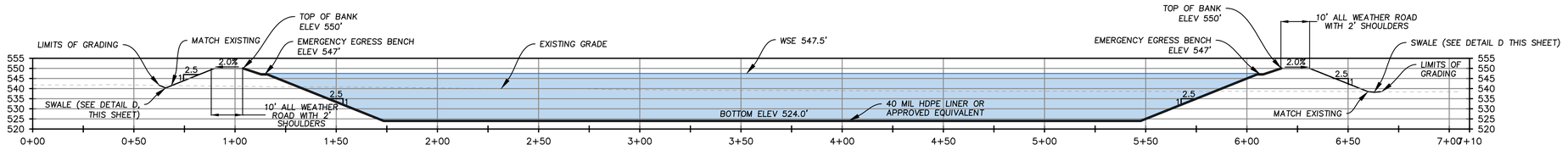
REGISTERED PROFESSIONAL ENGINEER
TODD A. ROBINSON
No. 75756
CIVIL
STATE OF CALIFORNIA

REVISIONS:	DATE:	DESCRIPTION:
1	10/18/2018	COUNTY PLANNING COMMENTS

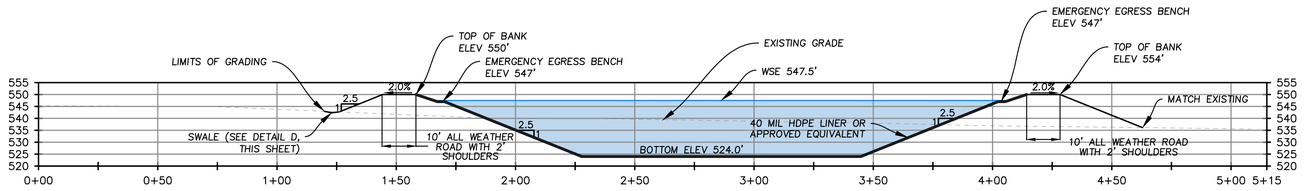
LOCATION
850 AIRPORT ROAD
SANTA YNEZ, CA
APN: 141-440-017
PROJECT NO.
17195
DRAWN
KMS
CHECKED
TAR
CLIENT
LONE CREEK VINEYARDS

SANJA COTA
FROST PROTECTION RESERVOIR #2
18CUP-00000-00028
GRADING PLAN

SHEET: C2.0 OF: 10
DATE: AUGUST 21, 2018

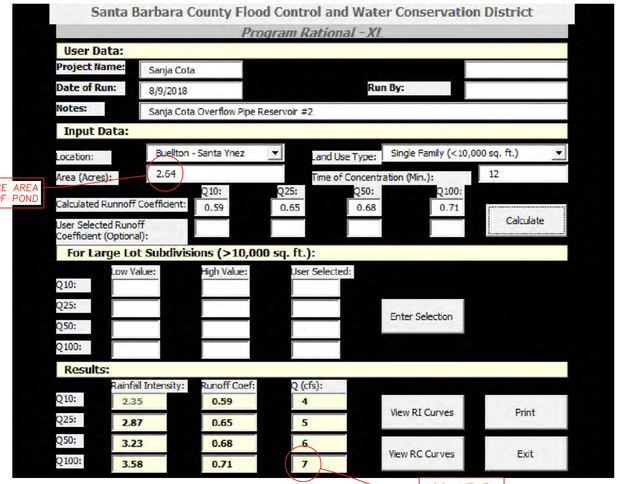


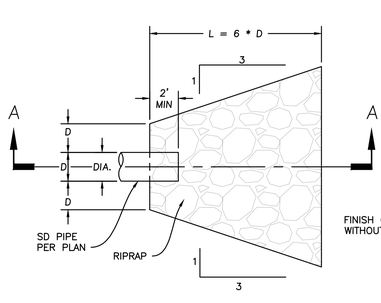
A SECTION VIEW
A SCALE: HORIZ: 1" = 20', VERT: 1"=20'



B SECTION VIEW
B SCALE: HORIZ: 1" = 20', VERT: 1"=20'

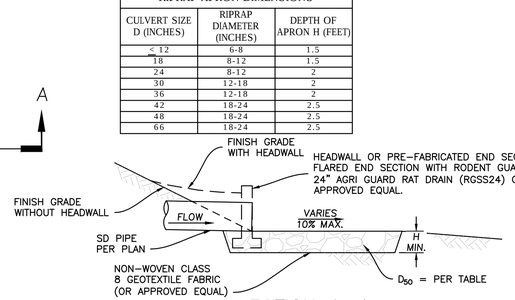
Program Rational - XL User Form





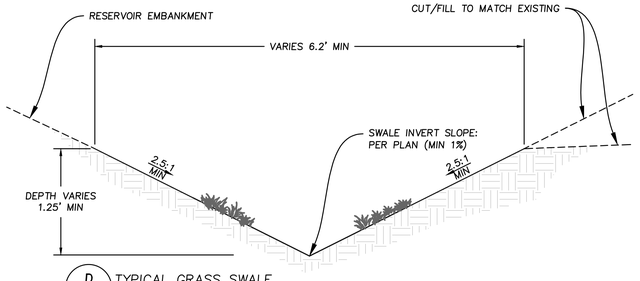
PLAN VIEW

RIPRAP APRON DIMENSIONS		
CULVERT SIZE D (INCHES)	RIPRAP DIAMETER (INCHES)	DEPTH OF APRON H (FEET)
≤ 12	6-8	1.5
18	8-12	1.5
24	8-12	2
30	12-18	2
36	12-18	2
42	18-24	2.5
48	18-24	2.5
66	18-24	2.5

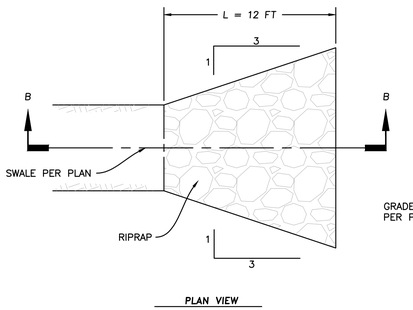


SECTION A-A

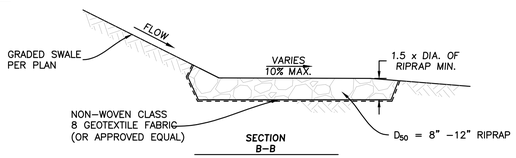
C RIPRAP APRON AT CULVERT OUTLET DETAIL
– NTS



D TYPICAL GRASS SWALE
– NTS



PLAN VIEW



SECTION B-B

E RIPRAP APRON AT SWALE OUTLET DETAIL
– NTS

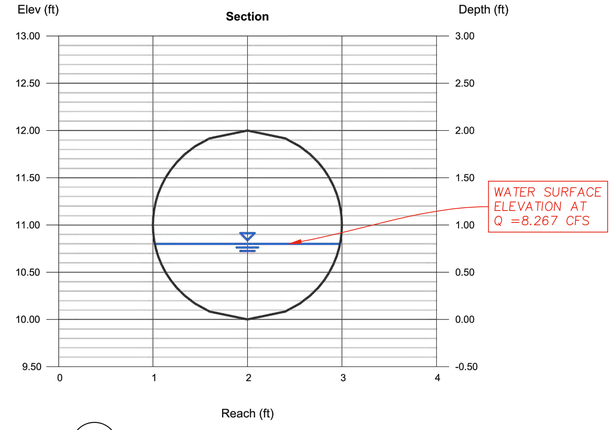
Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Jul 19 2018

<Name>

Circular		**Highlighted**	
Diameter (ft)	= 2.00	Depth (ft)	= 0.80
		Q (cfs)	= 8.267
		Area (sqft)	= 1.17
Invert Elev (ft)	= 10.00	Velocity (ft/s)	= 7.04
Slope (%)	= 1.00	Wetted Perim (ft)	= 2.74
N-Value	= 0.012	Crit Depth, Yc (ft)	= 1.03
		Top Width (ft)	= 1.96
Calculations		EGL (ft)	= 1.57
Compute by:	Q vs Depth		
No. Increments	= 10		

Q > 7 CFS



G 100 YR OVERFLOW PIPE CAPACITY CALCULATION
– NTS

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No. 75756
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DATE:	DESCRIPTION:
1	10/18/2018	COUNTY PLANNING COMMENTS

DRAWN KMS
CHECKED TAR

LOCATION
850 AIRPORT ROAD
SANTA YNEZ, CA
APN: 141-440-017

PROJECT NO.
17195

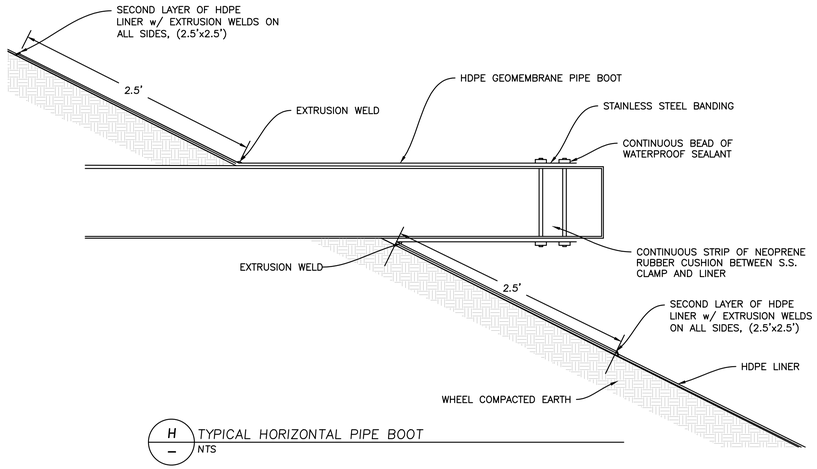
CLIENT
LONE CREEK VINEYARDS

SANJA COTA
FROST PROTECTION RESERVOIR #2
18CUP-00000-00028

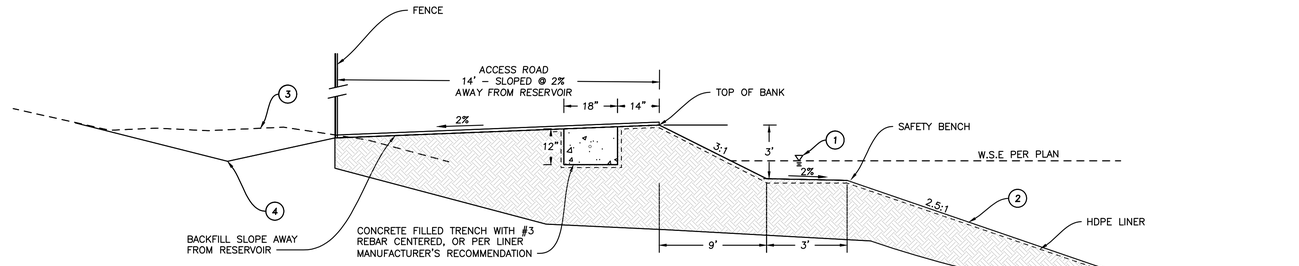
RESERVOIR DETAILS

SHEET: C2.1 OF: 10

DATE: AUGUST 21, 2018



H — TYPICAL HORIZONTAL PIPE BOOT
NTS



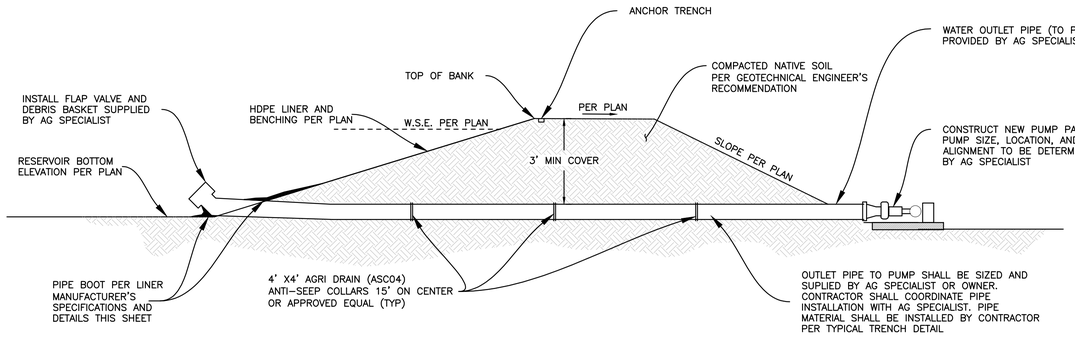
CONSTRUCTION NOTES:

1. W.S.E. – MIN 2.5' FREE BOARD FROM TOB.
2. AFTER SAFETY BENCH, POND CONTINUES TO BASE PER PLAN AT 2.5:1 SLOPE.
3. EXISTING GROUND.
4. SWALE SEE SHEET 2.1 DETAIL "D".

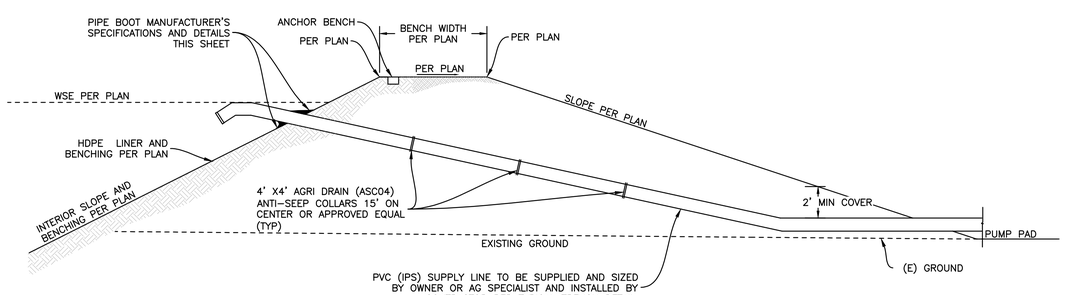
FLEXIBLE MEMBRANE LINER NOTES:

1. LINER SHALL BE SMOOTH BLACK, 40 MIL THIICK HDPE (OR APPROVED EQUAL).

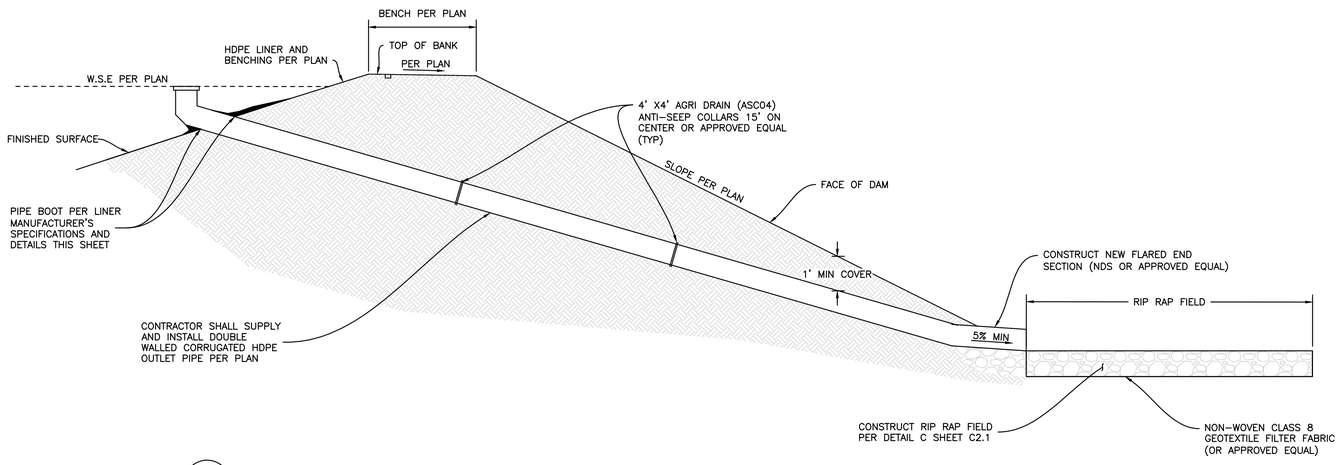
I — EMERGENCY EGRESS BENCH AND ANCHOR DETAIL
NTS



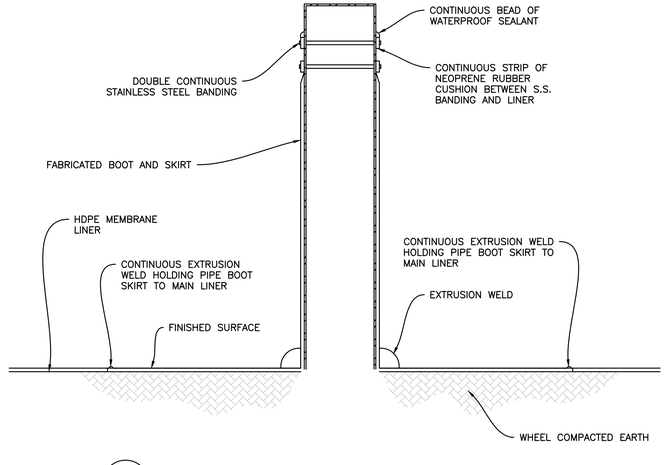
J — SUMP OUTLET
NTS



K — SUPPLY PIPE
NTS



L — OVERFLOW PIPE
NTS



M — TYPICAL VERTICAL PIPE BOOT
NTS

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REGISTERED PROFESSIONAL ENGINEER
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CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DATE:	DESCRIPTION:
1	10/18/2018	COUNTY PLANNING COMMENTS

DRAWN KMS
CHECKED TAR

LOCATION
850 AIRPORT ROAD
SANTA YNEZ, CA
APN: 141-440-017

PROJECT NO.
17195

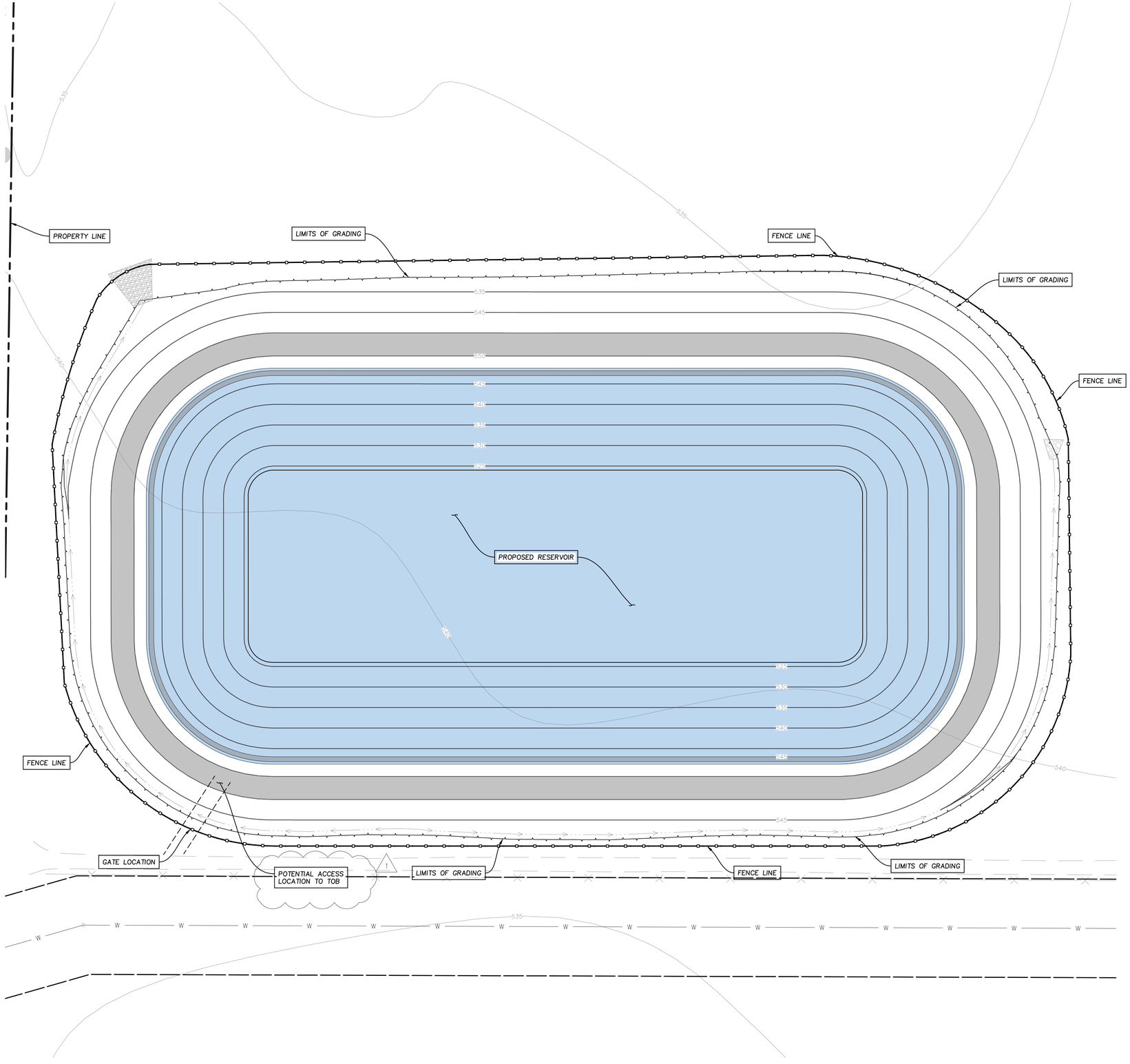
CLIENT
LONE CREEK VINEYARDS

SANJA COTA
FROST PROTECTION RESERVOIR #2
18CUP-00000-00028

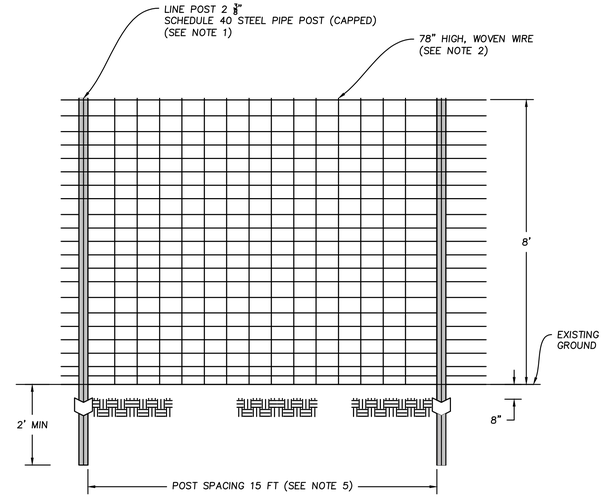
RESERVOIR DETAILS

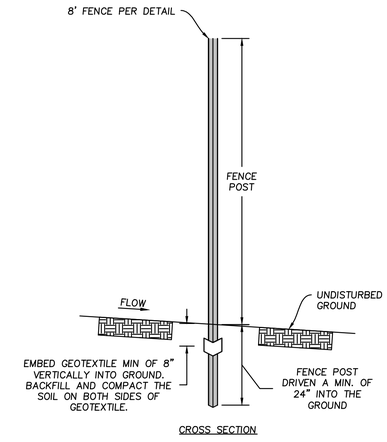
SHEET: C2.2
OF: 10

DATE: AUGUST 21, 2018



FENCING PLAN
1"=30'





CROSS SECTION

NOTES:
1. IF STANDARD STEEL "T" POSTS (1.33 LBS/FT WITH THE PLATE) ARE USED AS LINE POSTS, INSTALL 2 POSTS, INSTALL 2 3/8" SCHEDULE 40 STEEL PIPE POST (CAPPED) OR 6 INCH DIAMETER WOOD POST AT LEAST EVERY 150 FEET APART
2. FOR WOVEN WIRE, TOP AND BOTTOM STRANDS SHALL BE 12.5 GAUGE OR HEAVIER; INTERMEDIATE STRANDS SHALL BE 14.5 GAUGE OR HEAVIER.
3. FOR BARBED WIRE (IF APPLICABLE), EACH LINE WIRE SHALL CONSIST OF TWISTED STRANDS OF 12.5 GAUGE OR HI-TENSILE STRENGTH WIRE OF 15.5 GAUGE. THE BARBS SHALL BE EITHER 2-POINT BARBS ON APPROXIMATE 4 INCH CENTERS OR 4-POINT BARBS ON APPROXIMATE 5 INCH CENTERS.
4. ALL WIRE SHALL HAVE CLASS III GALVANIZATION.
5. STANDARD WOVEN WIRE FENCES MAY HAVE LINE POSTS SPACED UP TO15 FEET APART. HI-TENSILE WOVEN WIRE FENCE MAY HAVE LINE POSTS SPACED UP TO 20 FEET APART. CLOSER SPACING IS REQUIRED WHERE SPACING IS REQUIRED WHERE NEEDED FOR INCLINES OR CHANGES IN TOPOGRAPHY.

N
DEER FENCING DETAIL
NTS

N
SCALE: 1"=30'
0 30 60 90

COAST
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No. 75756
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DATE:	DESCRIPTION:
1	10/18/2018	COUNTY PLANNING COMMENTS

DRAWN KMS
CHECKED TAR

LOCATION
850 AIRPORT ROAD
SANTA YNEZ, CA
APN: 141-440-017

PROJECT NO.
17195

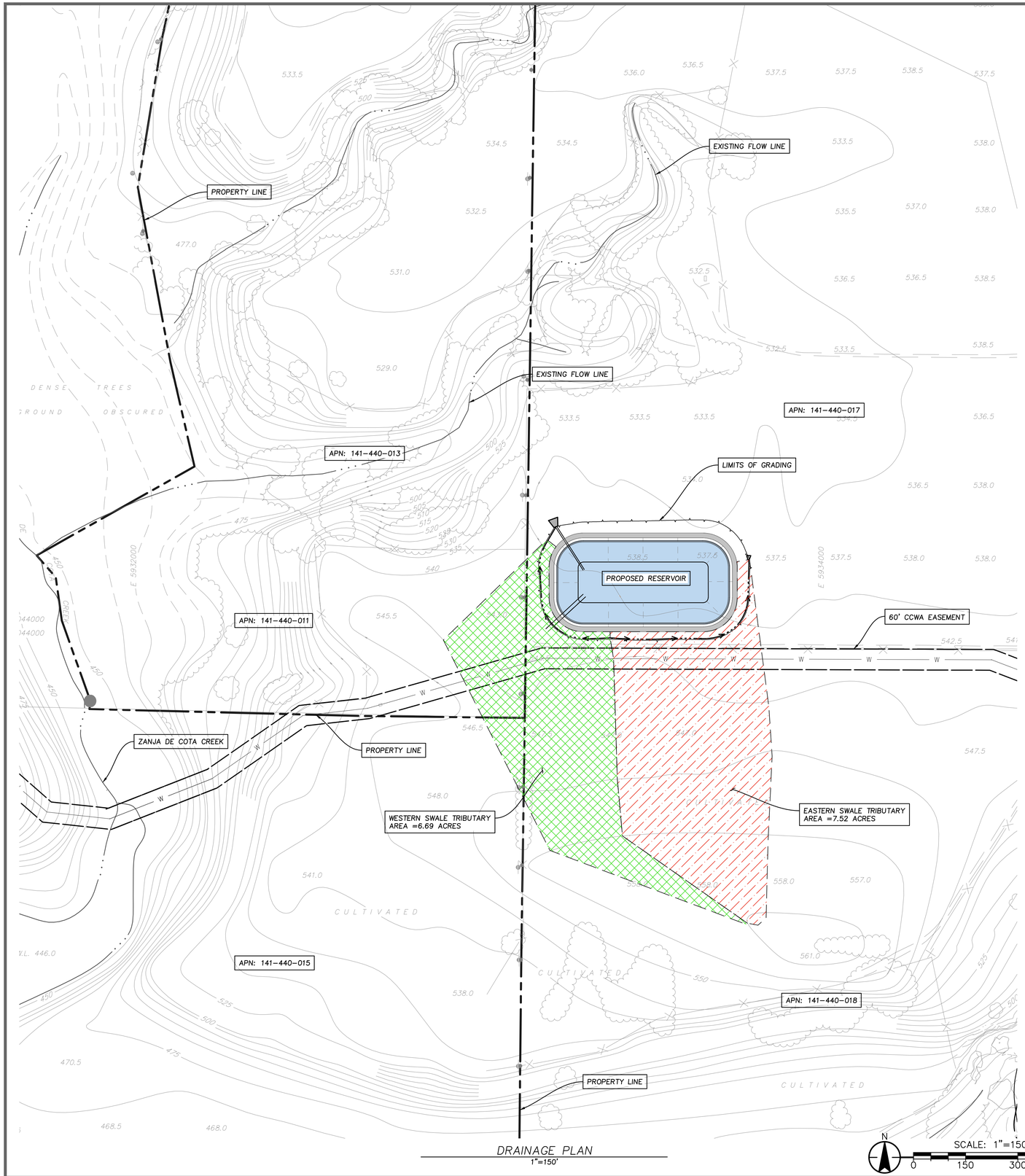
CLIENT
LONE CREEK VINEYARDS

SANJA COTA
FROST PROTECTION RESERVOIR #2
18CUP-00000-00028

FENCING PLAN

SHEET: C3.0
OF: 10

DATE:
AUGUST 21, 2018



DRAINAGE PLAN
1"=150'

LEGEND

- WESTERN SWALE TRIBUTARY AREA
- EASTERN SWALE TRIBUTARY AREA
- (E) FLOW PATH
- POND SURFACE
- (N) FLOW PATH
- GRADING LIMITS

Program Rational - XL User Form

Santa Barbara County Flood Control and Water Conservation District

Program Rational - XL

User Data:

Project Name: Sanja Cota
Date of Run: 8/7/2018 Run By:
Notes: Sanja Cota Frost Protection Reservoir #2

Input Data:

Location: Buellton - Santa Ynez Land Use Type: Agriculture
Area (Acres): 7.52 Time of Concentration (Min.): 12

	Q10:	Q25:	Q50:	Q100:
Calculated Runnoff Coefficient:	0.46	0.53	0.58	0.63
User Selected Runoff Coefficient (Optional):				

Calculate

For Large Lot Subdivisions (>10,000 sq. ft.):

	Low Value:	High Value:	User Selected:
Q10:			
Q25:			
Q50:			
Q100:			

Enter Selection

Results:

	Rainfall Intensity:	Runoff Coef:	Q (cfs):
Q10:	2.35	0.46	8
Q25:	2.87	0.53	11
Q50:	3.23	0.58	14
Q100:	3.58	0.63	17

View RI Curves | Print | View RC Curves | Exit

TRIBUTARY AREA

100-YEAR FLOW RATE

0 — TRIBUTARY CALCULATION

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Tuesday, Aug 7 2018

<Name>

Triangular

Side Slopes (z:1)	= 2.50, 2.50
Total Depth (ft)	= 1.25
Invert Elev (ft)	= 10.00
Slope (%)	= 1.00
N-Value	= 0.023

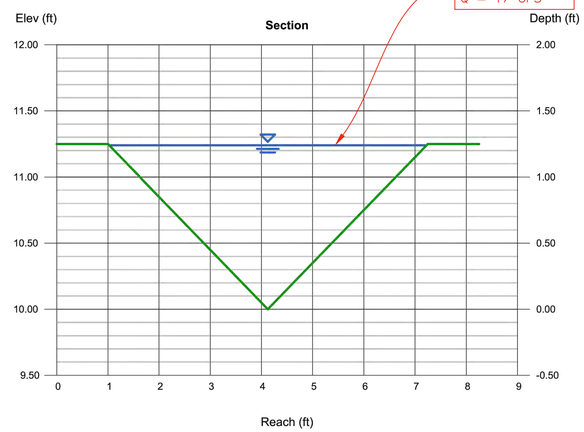
Calculations

Compute by:	Known Q
Known Q (cfs)	= 17.00

Highlighted

Depth (ft)	= 1.24
Q (cfs)	= 17.00 ✓
Area (sqft)	= 3.84
Velocity (ft/s)	= 4.42
Wetted Perim (ft)	= 6.68
Crit Depth, Yc (ft)	= 1.24
Top Width (ft)	= 6.20
EGL (ft)	= 1.54

WATER SURFACE ELEVATION AT Q = 17 CFS



P — SWALE CAPACITY CALCULATIONS

COAST
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No. 75756
CIVIL
STATE OF CALIFORNIA

REVISIONS:

	DATE:	DESCRIPTION:
1	10/18/2018	COUNTY PLANNING COMMENTS

DRAWN: KMS
CHECKED: TAR

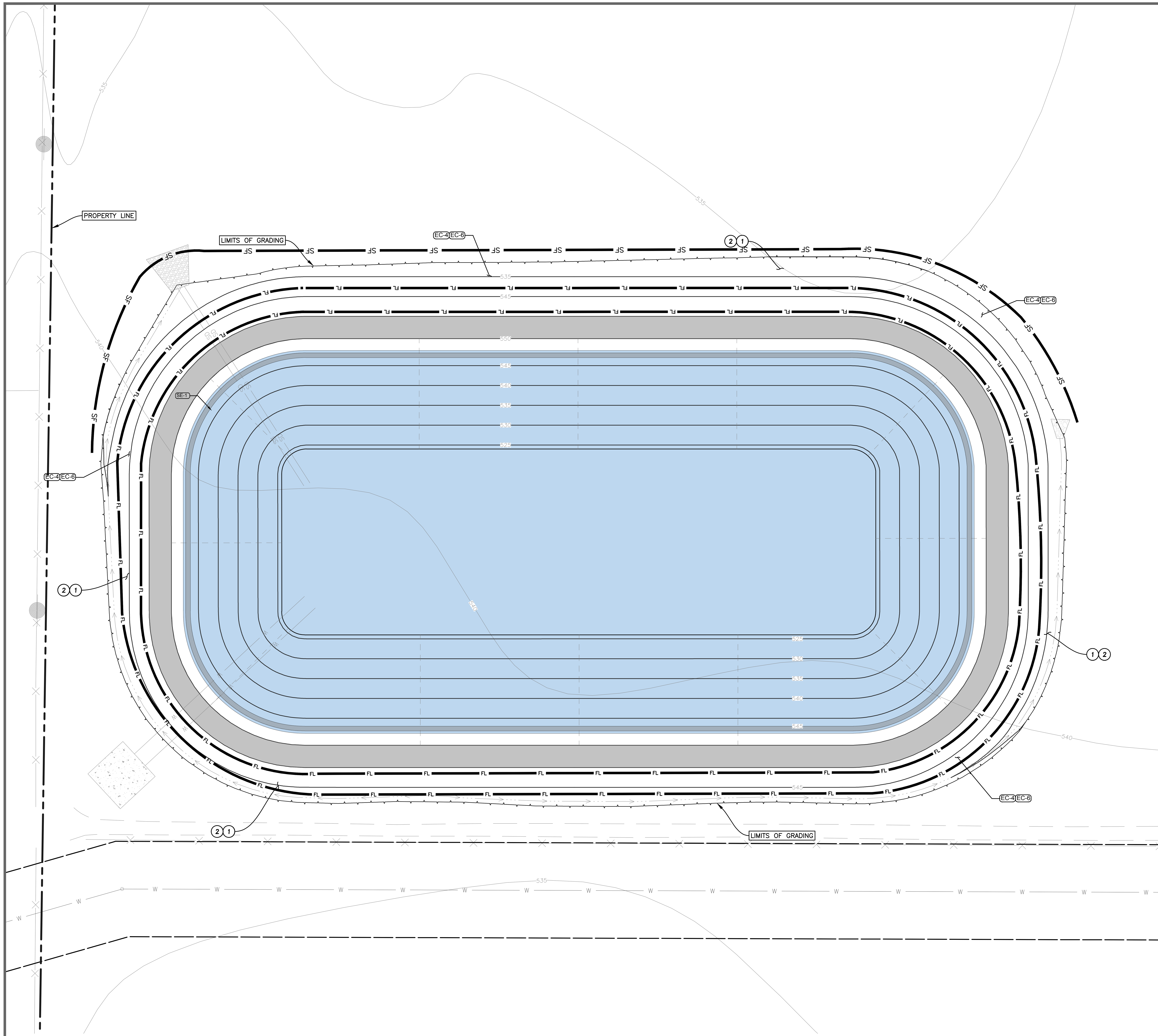
LOCATION: 850 AIRPORT ROAD, SANTA YNEZ, CA, APN: 141-440-017
PROJECT NO.: 17195
CLIENT: LONE CREEK VINEYARDS

SANJA COTA
FROST PROTECTION RESERVOIR #2
18CUP-00000-00028

HYDROLOGY CALCULATIONS

SHEET: C4.0
OF: 10

DATE: AUGUST 21, 2018



EROSION AND SEDIMENT CONTROL PLAN
1"=30'

EROSION CONTROL NOTES

1. WORK SHALL BE PERFORMED SO THAT IT CAN BE COMPLETED AT LEAST 48–HOURS PRIOR TO ANY FORECASTED RAIN EVENT. IT IS RECOMMENDED THAT WORK BE STARTED AND COMPLETED AFTER THE RAINY SEASON HAS ENDED.
2. PERMANENT EROSION CONTROL MEASURES SHALL BE APPLIED TO DENUDED AREAS WITHIN 5 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.
3. ALL EARTH FILLS AND DENUDED AREAS THAT ARE NOT AT FINAL GRADE SHALL BE MULCHED, MAINTAINED OR EQUALLY PROTECTED AT THE END OF EACH DAY TO ENSURE SEDIMENT DOES NOT LEAVE THE CONSTRUCTION SITE.
4. ALL MULCHING SHALL PROVIDE THE EQUIVALENT PROTECTION RESULTING FROM THE APPLICATION OF AT LEAST 1,500 LB. OF STRAW MULCH PER ONE ACRE OF SURFACE AREA (OR AS OTHERWISE PROVIDED IN THE EROSION CONTROL PLAN).
5. SITE INSPECTIONS AND APPROPRIATE MAINTENANCE OF ALL EROSION CONTROL MEASURES SHALL BE CONDUCTED AND DOCUMENTED AT ALL TIMES DURING CONSTRUCTION.
6. THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN AND VERIFY THAT EROSION AND SEDIMENTATION CONTROL DEVICES ARE PROPERLY INSTALLED AND ARE BEING MONITORED BEFORE AND AFTER EACH STORM, UNLESS OTHERWISE REQUIRED.
7. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT THE DISCRETION OF THE ENGINEER OF WORK OR THE GRADING INSPECTOR.
8. IN THE EVENT OF A FAILURE AND/OR LACK OF PERFORMANCE BY THE OWNER AND/OR CONTRACTOR TO CORRECT EROSION CONTROL RELATED PROBLEMS, THE PERMITTING AGENCY MAY REVOKE ALL ACTIVE PERMITS AND RECOMMEND THAT COUNTY CODE ENFORCEMENT PROVIDE A WRITTEN NOTICE OR STOP WORK ORDER.
9. SLOPES > 3:1 AND 3' VERTICAL ARE TO BE BLANKETED DURING CONSTRUCTION AND PLANTED AFTER CONSTRUCTION.
10. ALL HYDROSEEDING SHALL BE NON–IRRIGATED HYDROSEED.
11. NAME AND PERSON TO CONTACT 24 HOURS A DAY IN THE EVENT THERE IS AN EROSION CONTROL/SEDIMENTATION PROBLEM:

    NAME: TELEPHONE #:

13. IF THE CONSTRUCTION SITE IS GRADED AND LEFT UNDEVELOPED FOR MORE THAN FOUR WEEKS, THE APPLICANTS SHALL EMPLOY THE FOLLOWING METHODS IMMEDIATELY TO INHIBIT DUST GENERATION:
    - 13.1. SEEDING AND WATERING TO REVEGETATE GRADED AREAS; AND/OR
    - 13.2. SPREADING OF SOIL BINDERS; AND/OR
    - 13.3. ANY OTHER METHODS DEEMED APPROPRIATE BY PLANNING AND DEVELOPMENT.

BMP SELECTION AND LEGEND

BMP'S SPECIFIED ON THIS PLAN REFERENCE THE NOVEMBER 2009 EDITION OF THE CASQA "CALIFORNIA STORM WATER HANDBOOK. IT'S THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THE BMP DETAILS AVAILABLE AT WWW.CASQA.ORG.

THE FOLLOWING BMPS ARE NOT SHOWN IN THE SPECIFIC LOCATION ON THIS PLAN AND ARE APPLICABLE TO THE PROJECT. THE CONTRACTOR SHALL INCORPORATE THESE BMPS INTO THE PROJECT SCOPE.

- (EC-1) PROJECT SCHEDULING
- (EC-2) PRESERVATION OF EXISTING VEGETATION
- (NS-1) WATER CONSERVATION
- (NS-6) DISCHARGE REPORTING
- (NS-7) POTABLE WATER / IRRIGATION
- (NS-8) VEHICLE CLEANING
- (NS-9) VEHICLE FUELING
- (NS-10) VEHICLE MAINTENANCE
- (WE-1) WIND EROSION CONTROL

THE FOLLOWING BMPS ARE SPECIFIED ON THIS PLAN

- (SE-1) SILT FENCE —SF—
- (SE-5) FIBER ROLLS —FL—
- (EC-4) NON–IRRIGATED HYDRO SEEDING
- (EC-6) STRAW MULCH
- (WM-3) STOCKPILE MANAGEMENT

THE FOLLOWING BMPS SHALL BE USED IN THE CONTRACTOR STAGING AREA:

- (WM-1) MATERIAL STORAGE
- (WM-2) MATERIAL USAGE
- (WM-4) SPILL PREVENTION KIT
- (WM-5) SOLID WASTE (TRASH)
- (WM-6) SEPTIC / SANITARY FACILITIES

ESCP NOTES

1. RE–VEGETATE ALL STABILIZED SLOPES WITH HEIGHTS > 3' BY APPLYING NATURE SEED MIX (AS SHOWN TO THE LEFT)
2. SECURE EROSION CONTROL BLANKETING TO SLOPES > 3' TO STABILIZE GRADED SLOPES UNTIL PERMANENT MEASURES (VEGETATION) ARE ESTABLISHED

NOTE:
THIS EROSION CONTROL PLAN INDICATES THE MINIMUM LEVEL OF EROSION CONTROL. THE CONTRACTOR SHALL AMEND, MODIFY AND SUPPLEMENT THIS PLAN IN A TIMELY MANNER, ACCORDINGLY AND CONSISTENT WITH THE CONTRACTOR'S MEANS AND METHODS USED TO CONSTRUCT THE PROJECT SITE AND IMPROVEMENTS. ADDITIONALLY, ANY SWPPP REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

SEED MATRIX

	SLOPES LESS THAN 9% LBS/ACRE		SLOPES GREATER THAN 9% LBS/ACRE	
	DRILLED	BROADCAST	DRILLED	BROADCAST
GRASS MIX: ZORRO ANNUAL FESCUE	4	6	12	18
BLANDO BROME	10	12	10	12
DRYLAND LEGUME MIX	12	15	15	20
NATIVE PERENNIAL GRASS MIX SUCH AS 2 OR 3 OF THE FOLLOWING VARIETIES: CALIFORNIA OATGRASS, CALIFORNIA MELIC, MEADOW BARLEY, OR BLUE WILDRYE	15	20	20	30

N

SCALE: 1"=30'
0 30 60 90

COAST
ENGINEERING & SURVEY, INC.
SAN LUIS OBISPO
CELL: (805) 440-3348
OFFICE: (805) 439-1820

REGISTERED PROFESSIONAL ENGINEER
TODD A. ROBINSON
No. 75756
CIVIL
STATE OF CALIFORNIA

REVISIONS:	DATE:	DESCRIPTION:
1	10/18/2018	COUNTY PLANNING COMMENTS

DRAWN KMS
CHECKED TAR

LOCATION
850 AIRPORT ROAD
5.0
APN: 141–440–017

PROJECT NO.
17195

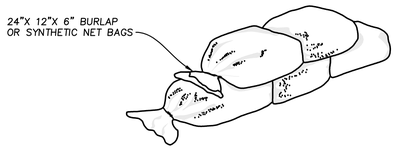
CLIENT
LONE CREEK VINEYARDS

SANJA COTA
FROST PROTECTION RESERVOIR #2
18CUP–00000–00028

EROSION AND SEDIMENT CONTROL PLAN

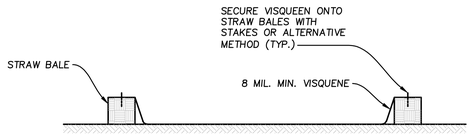
SHEET: C5.0 OF: 10

DATE: AUGUST 21, 2018



NOTES:
1. FILL ROCK BARRIER BAGS ⅔ FULL OF ¾" ROCK.
2. PLACE BAGS SUCH THAT NO GAPS ARE EVIDENT IN A SINGLE OR DOUBLE LAYER. STAMP ENTIRE LAYER INTO PLACE PRIOR TO STARTING THE NEXT LAYER.

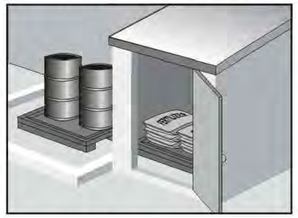
Q — ROCK BARRIER BAG DETAIL
NTS



NOTES:
1. ALL CONCRETE TRUCKS AND FINISHING TOOLS SHALL BE WASHED AT THE WASH OFF AREA.
2. ALL CONCRETE WASTE COLLECTED IN WASH OFF AREA SHALL BE RECYCLED OR APPROPRIATELY DISPOSED OF OFF-SITE.
3. LOCATION AND SIZE OF WASH-OFF AREA MAY BE ADJUSTED TO ACCOMMODATE SITE CONDITIONS.

R — CONCRETE WASH OUT DETAIL
NTS

Material Delivery and Storage WM-1



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives
None

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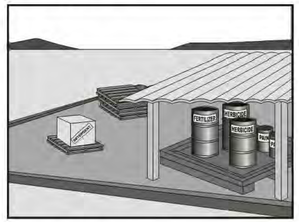
Description and Purpose
Prevent, reduce, or eliminate the discharge of pollutants from material delivery and storage to the stormwater system or watercourses by minimizing the storage of hazardous materials onsite, storing materials in watertight containers and/or a completely enclosed designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

This best management practice covers only material delivery and storage. For other information on materials, see WM-2, Material Use, or WM-4, Spill Prevention and Control. For information on wastes, see the waste management BMPs in this section.

Suitable Applications
These procedures are suitable for use at all construction sites with delivery and storage of the following materials:

- Soil stabilizers and binders
- Pesticides and herbicides
- Fertilizers
- Detergents
- Plaster
- Petroleum products such as fuel, oil, and grease

Material Use WM-2



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives
None

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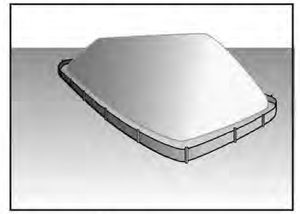
Description and Purpose
Prevent or reduce the discharge of pollutants to the storm drain system or watercourses from material use by using alternative products, minimizing hazardous material use onsite, and training employees and subcontractors.

Suitable Applications
This BMP is suitable for use at all construction projects. These procedures apply when the following materials are used or prepared onsite:

- Pesticides and herbicides
- Fertilizers
- Detergents
- Petroleum products such as fuel, oil, and grease
- Asphalt and other concrete components
- Other hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Other materials that may be detrimental if released to the environment

Stockpile Management WM-3



Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☒
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives
None

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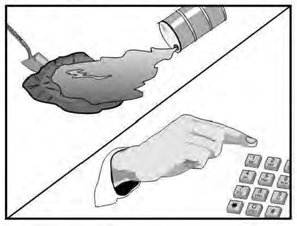
Description and Purpose
Stockpile management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt minder (so called "cold mix" asphalt), and pressure treated wood.

Suitable Applications
Implement in all projects that stockpile soil and other loose materials.

Limitations
- Plastic sheeting as a stockpile protection is temporary and hard to manage in windy conditions. Where plastic is used, consider use of plastic tarps with nylon reinforcement which may be more durable than standard sheeting.
- Plastic sheeting can increase runoff volume due to lack of infiltration and potentially cause perimeter control failure.
- Plastic sheeting breaks down faster in sunlight.
- The use of Plastic materials and photodegradable plastics should be avoided.

Implementation
Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

Spill Prevention and Control WM-4



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives
None

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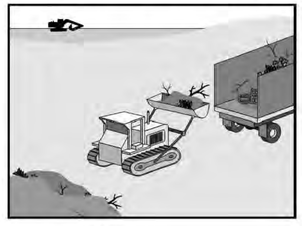
Description and Purpose
Prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

This best management practice covers only spill prevention and control. However, WM-1, Materials Delivery and Storage, and WM-2, Material Use, also contain useful information, particularly on spill prevention. For information on wastes, see the waste management BMPs in this section.

Suitable Applications
This BMP is suitable for all construction projects. Spill control procedures are implemented anytime chemicals or hazardous substances are stored on the construction site, including the following materials:

- Soil stabilizers/binders
- Dust palliatives
- Herbicides
- Growth inhibitors
- Fertilizers
- Deicing/anti-icing chemicals

Solid Waste Management WM-5



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives
None

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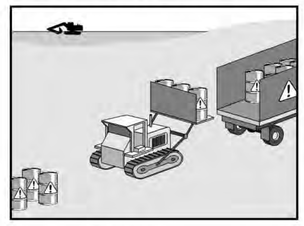
Description and Purpose
Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors.

Suitable Applications
This BMP is suitable for construction sites where the following wastes are generated or stored:

- Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures (rubble), and building construction
- Packaging materials including wood, paper, and plastic
- Scrap or surplus building materials including scrap metals, rubber, plastic, glass pieces, and masonry products
- Domestic wastes including food containers such as beverage cans, coffee cups, paper bags, plastic wrappers, and cigarettes
- Construction wastes including brick, mortar, timber, steel and metal scraps, pipe and electrical cuttings, non-hazardous equipment parts, styrofoam and other materials used to transport and package construction materials

Hazardous Waste Management WM-6



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents

Sediment	
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	☑
Oil and Grease	☑
Organics	☑

Potential Alternatives
None

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Description and Purpose
Prevent or reduce the discharge of pollutants to stormwater from hazardous waste through proper material use, waste disposal, and training of employees and subcontractors.

Suitable Applications
This best management practice (BMP) applies to all construction projects. Hazardous waste management practices are implemented on construction projects that generate waste from the use of:

- Petroleum Products
- Asphalt Products
- Concrete Curing Compounds
- Pesticides
- Palliatives
- Acids
- Septic Wastes
- Paints
- Stains
- Solvents
- Wood Preservatives
- Roofing Tar
- Any materials deemed a hazardous waste in California, Title 22 Division 4.5, or listed in 40 CFR Parts 110, 117, 261, or 302

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REVISIONS:

	DATE:	DESCRIPTION:
1	10/18/2018	COUNTY PLANNING COMMENTS

DRAWN KMS
CHECKED TAR

LOCATION
850 AIRPORT ROAD
SANTA YNEZ, CA
APN: 141-440-017

PROJECT NO.
17195

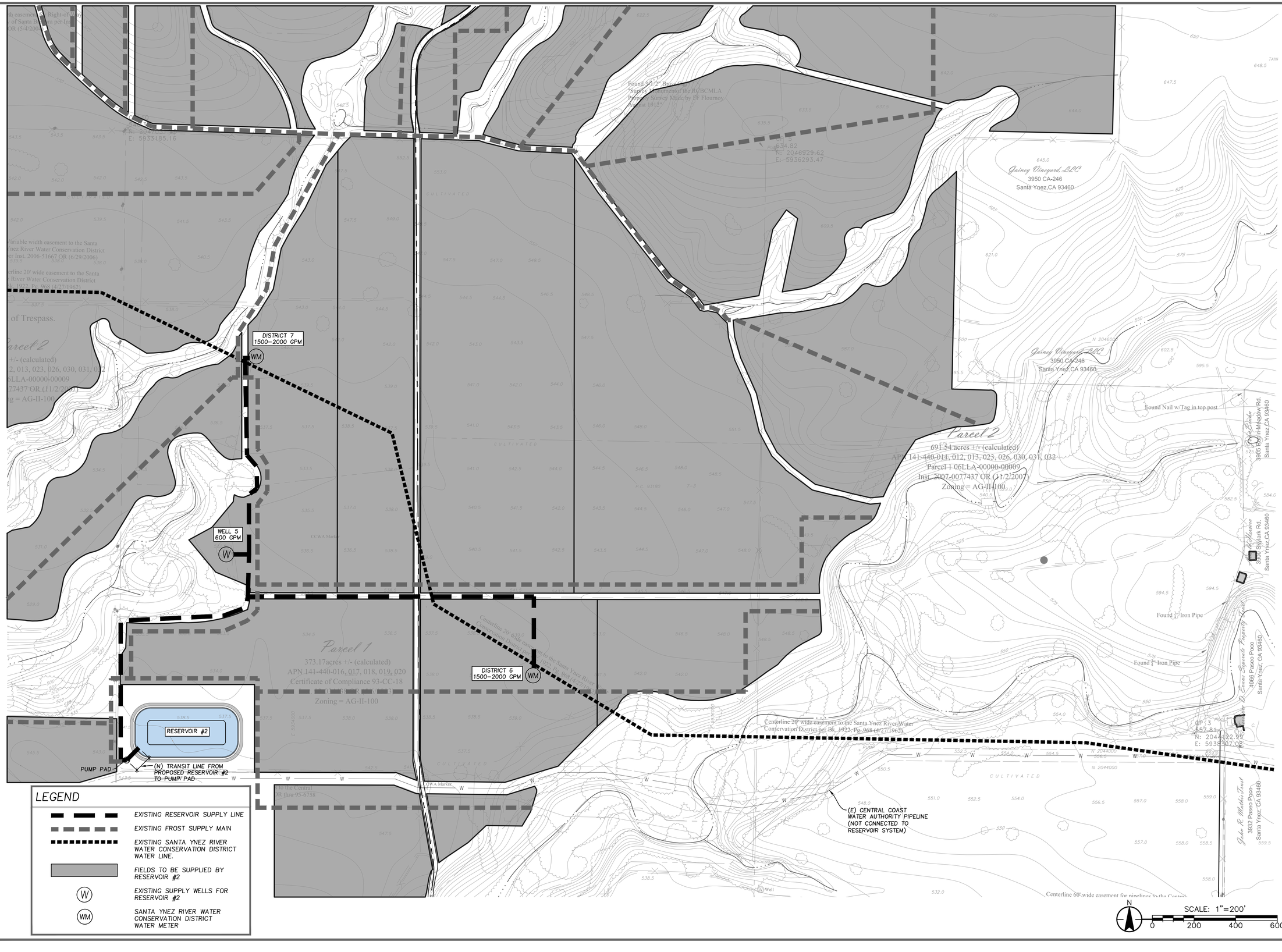
CLIENT
LONE CREEK VINEYARDS

SANJA COTA
FROST PROTECTION RESERVOIR #2
18CUP-00000-00028

EROSION AND SEDIMENT CONTROL PLAN DETAILS

SHEET: C5.1
OF: 10

DATE: AUGUST 21, 2018



LEGEND

- EXISTING RESERVOIR SUPPLY LINE
- EXISTING FROST SUPPLY MAIN
- EXISTING SANTA YNEZ RIVER WATER CONSERVATION DISTRICT WATER LINE.
- FIELDS TO BE SUPPLIED BY RESERVOIR #2
- (W) EXISTING SUPPLY WELLS FOR RESERVOIR #2
- (WM) SANTA YNEZ RIVER WATER CONSERVATION DISTRICT WATER METER

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STATE OF CALIFORNIA

REVISIONS:	DATE:	DESCRIPTION:
1	10/18/2018	COUNTY PLANNING COMMENTS

DRAWN: KMS
CHECKED: TAR

LOCATION
850 AIRPORT ROAD
SANTA YNEZ, CA
APN: 141-440-017

PROJECT NO.
17195

CLIENT
LONE CREEK VINEYARDS

SANJA COTA
FROST PROTECTION RESERVOIR #2
18CUP-00000-00028
RESERVOIR SUPPLY AND IRRIGATION PLAN

SHEET: C6.0 OF: 10

DATE: AUGUST 21, 2018

Attachment 2

Kevin Merk Associates, LLC | P.O. Box 318, San Luis Obispo, CA 93406 | 805-748-5837

September 19, 2018

Mr. Kevin Merrill
Mesa Vineyard Management
P.O. Box 789
Templeton, California 93465

Subject: Biological Resources Assessment for the LTC-Rancho Sanja Cota Vineyard Reservoir Project, Santa Ynez Valley, Santa Barbara County, California

Dear Mr. Merrill:

Kevin Merk Associates, LLC (KMA), at your request, conducted a biological resources assessment for two proposed reservoir sites on a portion of the LTC-Rancho Sanja Cota Vineyard property, in Santa Barbara County, California. The property is located at 222 Refugio Road in the Santa Ynez Valley, just outside the unincorporated community of Santa Ynez. The property consists of multiple parcels, and is bounded to the north by the Santa Ynez Airport and Santa Ynez Band of Chumash Indians Reservation lands, the south by the Santa Ynez River, the east by rural residential development, and the west by Zanja de Cota Creek. The proposed reservoir project consists of the construction of two reservoirs sited in existing agricultural areas on a small subset of the larger property. Please refer to the attached Figure 1, Site Location Map, and Figure 2, Aerial Overview Map, for further detail.

The biological resources assessment examined existing conditions in the vicinity of each reservoir's disturbance footprint, and evaluated the potential for rare or special status species and habitats to be present and affected by reservoir construction. Future access to the reservoir sites would occur via existing ranch roads that originate from Refugio Road to the west, and as we understand, pipes from wells to the reservoirs those leading to the fields are already in place. As such, this investigation only covers each reservoir disturbance footprint as shown on the Habitat Maps included as Figures 3A and 3B. The following discussion provides the methods and results of our investigation.

METHODS

Prior to conducting field work, KMA biologists reviewed pertinent background information from the general area, including historic aerial photographs from Google Earth and soil survey information from the U.S. Department of Agriculture's Web Soil Survey (USDA, 2018). A search and review of the California Natural Diversity Data Base (CNDDB, initially queried in November 2017), which is maintained by the California Department of Fish and Wildlife (CDFW) was conducted within the following six U.S. Geological Survey's (USGS) 7.5-minute topographic quadrangle maps: Zaca Creek, Los Olivos, Figueroa Mountain, Solvang, Santa Ynez, and Lake Cachuma. The CNDDB data was used to evaluate the documented occurrences of special-status plant and wildlife species, as well as natural communities (or plant communities) of special concern, in proximity to the site. The U. S. Fish and Wildlife Service's online Critical Habitat Mapper

(http://criticalhabitat.fws.gov/crithab/) was also reviewed to evaluate the extent of designated critical habitat defined in the region. The National Wetland Inventory online wetland mapper was also queried to identify drainage features and potential wetlands documented onsite and in the region.

KMA's Principal Biologist Kevin Merk and Senior Biologist Meighan Dietenhofer conducted an initial field reconnaissance survey of the Rancho Sanja Cota property in November and December 2017 that covered the entire property, including the proposed reservoir footprints. The property and reservoir sites were surveyed again by Mr. Merk and Ms. Dietenhofer on multiple occasions in the winter, spring, summer and fall of 2018. Surveys occurred on the following dates in 2018: 15 January, 27 February, 12 April, 20 June, and 5 September. During the field surveys, existing roads were used to traverse the site and areas outside the existing agricultural footprint were walked to evaluate the potential for the site to support suitable habitat for special-status species or other sensitive biological resources. The reservoir footprints were evaluated during each visit during the spring and summer bloom period to confirm special status or rare plants were not present. Aerial photographs of the property and regional maps were used in the field to identify plant communities on the site and adjacent areas and to record other notable observations.

The assessment of special-status wildlife occurrence on the property and identification of habitat that could potentially support these species was based on our field observations, coupled with our knowledge of species' biology, review of the CNDDB data and background reports, and our previous studies conducted in the area. Winter surveys followed rain events and site hydrology was assessed, and spring surveys identified all plants and habitat types within the defined reservoir study areas. As stated above, we relied on existing information and survey data, coupled with our knowledge of the area and past investigations, to conclude whether special-status wildlife could potentially occur onsite. All special status species and habitats evaluated in this study are included in the attached Table 1.

Vegetation classification generally follows Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (1986) and was cross-referenced with *A Manual of California Vegetation, Second Edition* (Sawyer et al., 2009) for consistency. Plant taxonomy follows the *Jepson Manual, Second Edition* (Baldwin et al., 2012).

For the purpose of this report, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the U.S. Fish and Wildlife Service (USFWS) under the federal Endangered Species Act (ESA); those listed or proposed for listing as Rare, Threatened, or Endangered by the CDFW under the California Endangered Species Act (CESA); animals designated as "Species of Special Concern," "Fully Protected," or "Watch List" by the CDFW; and plants with California Rare Plant Rank codes 1, 2, 3, and 4 developed by the CDFW working in concert with the California Native Plant Society. The specific Rare Plant Rank code definitions are as follows:

- *1A = Plants presumed extinct in California;*
- *1B.1 = Rare or endangered in California and elsewhere; seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);*

- *1B.2 = Rare or endangered in California and elsewhere; fairly endangered in California (20-80% occurrences threatened);*
- *1B.3 = Rare or endangered in California and elsewhere, not very endangered in California (<20% of occurrences threatened or no current threats known);*
- *2 = Rare, threatened or endangered in California, but more common elsewhere;*
- *3 = Plants needing more information (most are species that are taxonomically unresolved; some species on this list meet the definitions of rarity under CNPS and CESA);*
- *4.2 = Plants of limited distribution (watch list), fairly endangered in California (20-80% occurrences threatened); and*
- *4.3= Plants of limited distribution (watch list), not very endangered in California.*

RESULTS

Overview

The LTC-Rancho Sanja Cota Vineyard property covers a large area that spans from the Santa Ynez Airport and Chumash Casino to the Santa Ynez River. It is composed of valley bottoms and gently sloping hillsides with a primarily southwest facing aspect. The two reservoirs are proposed on a small subset of the property. Elevations in the study areas developed for this project range from approximately 495 feet above mean sea level (MSL) at Reservoir 1 to 540 feet MSL at Reservoir 2. The majority of the property consists of active agriculture that has historically been used for cattle grazing or irrigated row crops, including alfalfa. Agricultural areas on the property are interspersed with segments of native plant communities, including annual grassland, oak woodland/savannah, riparian, and seasonal wetland. Several drainages traverse the Rancho Sanja Cota Vineyard property, directing surface runoff from the site in a southwesterly direction towards the Santa Ynez River and Zanja de Cota Creek, which is a tributary to the Santa Ynez River. While native oak trees (both *Quercus agrifolia* and *Q. lobata*) are the primary tree species onsite, horticultural plantings are also present, including an area of blue gum eucalyptus trees (*Eucalyptus globulus*).

The two proposed reservoir disturbance footprints are located primarily in existing agricultural fields with a small portion of annual grassland being included in the study area at Reservoir 1. The location of both reservoirs on the property can be found on the attached Figure 2, Aerial Overview Map. The study area developed for Reservoir #1 is approximately 13.5 acres, and 11 for Reservoir #2. The attached Figure 3A, Reservoir 1 Habitat Map, and Figure 3B, Reservoir 2 Habitat Map, provide close-up views of existing conditions at each project site. Figure 4 illustrates the generally sandy loam soil map units at each site.

Figure 5, the CNDDB Occurrence Map, identifies the recorded special-status biological resources within a five-mile radius of the property. Also included as an attachment, Table 1, Special-Status Species Occurrence Table, provides a list of all special status species and plant communities identified in the CNDDB search area as well as our knowledge of the region. A determination of whether or not the special status resources are expected to occur in or adjacent to the two proposed reservoir sites is also provided in this table. Additional attachments include a photo plate to show existing conditions at the two project sites, and a list of species observed at each site over

the course of the field investigation (attached as Table 1). Existing conditions observed within the two sites are discussed further below.

Reservoir #1

Reservoir Site #1 is an approximate 5.5-acre feature located on a flat agricultural field in the southeastern portion of the ranch property, at the base of a south-facing hillslope. The reservoir site consists primarily of tilled agriculture lands, with a strip of disturbed annual grassland on the slope (refer to Figure 3A). The agricultural land supports patchy occurrences of weedy, non-native annual forbs growing on bare sandy loam soils, including: red-stemmed filaree (*Erodium cicutarium*), short pod or summer mustard (*Hirschfeldia incana*), vinegar weed (*Trichostema lanceolatum*), and Russian thistle (*Salsola tragus*). Agriculture is not described by Holland (1986) or Sawyer Keeler Wolf et al (2009) since it is an anthropogenic habitat type. Prior to vineyard development, this area was regularly disturbed through tilling and crop rotation, and appears to have been farmed to alfalfa on a regular basis.

Annual grassland on the small slope within the Reservoir #1 study area was vegetated with the same annual forbs listed above, as well as the following non-native grasses: slender wild oats (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), barnyard foxtail (*Hordeum murinum* ssp. *leporinum*), Italian ryegrass (*Festuca perennis* = *Lolium multiflorum*), and a few clumps of Harding grass (*Phalaris aquatica*). In addition, annual grassland within the site contained occasional native plants such as narrow-leaved milkweed (*Asclepias fascicularis*), soaproot (*Chlorogalum pomeridianum* var. *pomeridianum*), and doveweed (*Croton setigerus*). Native shrubs, such as coyote bush (*Baccharis pilularis*), and non-native perennials, such as Australian saltbush (*Atriplex semibaccata*), were also present scattered throughout the grassland habitat. Several coast live oak trees (*Quercus agrifolia*) and valley oak trees (*Q. lobata*) occur within the study area of Reservoir # 1, both in the agricultural area and annual grassland on the slope. Still showing on aerial imagery used as the base map for the attached maps, several oak trees are no longer present in the reservoir footprint, and were removed during agricultural improvements of the property.

Generally, agricultural or disturbed areas provide marginal habitat for wildlife because the ongoing human disturbance disrupts breeding and reduces the amount of available food. The active agriculture and disturbed annual grassland within the Reservoir #1 study area supports birds and other wildlife adapted to rural and suburban settings. Wildlife species observed within the agricultural and disturbed annual grassland portions of the study area, including in oak trees within those areas, were: mourning dove (*Zenaida macroura)*, turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), killdeer (*Charadrius vociferous*), Anna's hummingbird (*Calypte anna*), acorn woodpecker (*Melanerpes formicivorus*), Say's phoebe (*Sayornis saya*), American crow (*Corvus brachyrhynchos*), oak titmouse (*Baeolophus inornatus*), and vesper sparrow (*Pooecetes gramineus*). Other common birds expected to occur in these areas include northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), and Brewer's blackbird (*Euphagus cyanocephalus)*.

The agricultural area and disturbed annual grassland within Reservoir # 1 also provide habitat for small mammals such as the California ground squirrel (*Spermophilus beecheyi*), which was observed

throughout the property, and Botta's pocket gopher (*Thomomys bottae*). Agricultural and annual grassland areas can serve as foraging habitat for raptors, such as red-tailed hawk and American kestrel, which, as stated above, were observed throughout the property.

Reservoir #2

Reservoir #2 is located on an upper terrace in the western portion of the study area. The entire construction footprint for this site occurs in disturbed agricultural lands with very little vegetation cover. A small portion of the reservoir's study area consists of disturbed annual grassland on a sloping hillside. Vegetation growing within agricultural land at Reservoir #2 was similar to that observed within the agricultural land at Reservoir #1, described above, which includes non-native weeds growing on generally sandy loam soils. Vegetation observed within the small area of annual grassland at Reservoir #2 was composed of dense cover of non-native grasses such as wild oats similar to that observed in annual grassland at Reservoir #1, described above. No oak trees occur within the Reservoir #2 footprint.

Soils

Prior to field investigation, the USDA Web Soil Survey was searched to determine soil composition and the related potential for the site to support special status species, both plants and animals. The Soil Survey identified the project areas as composed of primarily sandy loam soils. Reservoir #1 is located on Ballard fine sandy loam (0-2 % slopes), Ballard fine sandy loam (2-9 % slopes), and loamy Terrace escarpments (i.e., the slope with annual grassland). Reservoir #2 is located on Ballard fine sandy loam (0-2 % slopes) and Positas fine sandy loam (2-9 % slopes). Please refer to the attached Soil Map provided as Figure 4.

Drainage Features

No drainage features are present within the two reservoir study areas. A series of ephemeral drainage features that are tributaries to the Santa Ynez River traverse the Rancho Sanja Cota Vineyard property in a general north to south direction. Site drainage is generally in a southwest direction towards the Santa Ynez River, which connects to the Pacific Ocean further west. No aquatic features or topographic depressions capable of supporting seasonally-ponded water were observed in the study areas developed for either Reservoir #1 or Reservoir #2.

Special-Status Biological Resources

As part of our investigation, a search of the CNDDB was performed within a five-mile radius of the larger Rancho Sanja Cota Vineyard property limits (refer to the attached Figure 5, CNDDB Occurrence Map). The CNDDB records, coupled with our knowledge of the area, identified five (5) special-status plant communities, 12 special-status plant species, and 11 special-status animal species known to occur within the general region. Critical habitat defined by the USFWS was also identified for three species in the region of the site. Most of the reported special-status species have highly specific habitat requirements such as chaparral habitat in the more mountainous terrain of the Santa Ynez Mountains that are not present on the Rancho Sanja Cota Vineyard property. Reservoir #1 and Reservoir #2 contain highly disturbed soils from current farming practices that

do not support any of the special-status biological resources known to occur in the area. With the exception of providing suitable foraging habitat for raptors, the proposed reservoir disturbance areas do not provide suitable habitat for special status animals given the regular cycle of disturbance from farming and human presence. Oak trees in the area could support nesting birds, but no trees are currently proposed for removal to construct the reservoirs. Please refer to Table 1, Special-Status Species Occurrence Table, for more information on special-status plant communities, plant species, and wildlife species reported through the CNDDB and a determination of the potential for each to occur within the project site.

Natural Communities of Special Concern

The CNDDB search identified occurrences of the following five special status plant communities within five miles of the Rancho Sanja Cota Vineyard property: Southern California Steelhead Stream, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Vernal Pool, and Southern Willow Scrub. As shown on Figure 5, CNDDB Occurrence Map, the riparian plant communities occur within the Santa Ynez River corridor or its tributary drainage, Zanja de Cota Creek, adjacent to the property. Vernal pool habitat, including defined critical habitat, is known to occur further east of the site. None of these special-status plant communities were observed within the reservoir study areas, and none would be expected to be impacted by the development of Reservoir #1 or Reservoir #2.

Special Status Plants

The CNDDB records included sightings of special-status plants from the general project area (please refer to Table 1). Representative species identified in the search include: Hoover's bent grass (*Agrostis hooveri*), Refugio manzanita (*Arctostaphylos refugioensis*), late-flowered mariposa-lily (*Calochortus weedii* var. *vestus*), umbrella larkspur (*Delphinium umbraculorum*), Ojai fritillary (*Fritillaria ojaiensis*), Coulter goldfields (*Lasthenia glabrata* ssp. *coulteri*), southern curly-leaved monardella (*Monardella sinuata* ssp. *sinuata*), and chaparral ragwort (*Senecio aphanactis*). No suitable habitat for rare plants was observed in the project footprints for either of the two proposed reservoirs. The high level of disturbance in the previously disked and planted agricultural fields, where the majority of the reservoir placement will occur have removed any potential suitable habitat for these species. Furthermore, the small strips of annual grassland adjacent to these agricultural fields were dominated by dense occurrences of non-native grasses and forbs. These areas were searched during the spring bloom season when rare plants would have been in identifiable condition, and none were observed. Please refer to Table 2 for a list of plants observed during the field work. Therefore, no special-status plants are expected to occur within the two reservoir study areas, and none would be affected by the proposed project.

Special Status Wildlife

The CNDDB contains a number of recorded occurrences of special-status wildlife species known from the Santa Ynez Valley and Santa Ynez Mountains. Please refer to Table 1 for further detail and a determination as the likelihood (i.e., not expected, unlikely or potential) of occurrence onsite. Most of the species listed in the CNDDB require specific habitat types or site attributes not present on the reservoir study areas developed on the Rancho Sanja Cota Vineyard property. For example,

the crotch bumble bee (*Bombus crotchii*) requires pollen sources, typically from native flowering vegetation that are not present within the reservoir footprints. The regular cycle of disturbance typically removes vegetation before it flowers and sets seed, and promotes the dominance of ruderal or weedy, non-native species that can tolerate disturbance. Removal of vegetation from disking or tilling is expected to reduce the potential for this species to occur within the proposed project footprints. The annual grassland was dominated by annual grasses and no species of *Clarkia* or *Eriogonum* that are typically pollen sources for this species were observed.

The coast horned lizard (*Phrynosoma blainvillii*) requires open areas of loose, sandy soils and low vegetation, typically in low lands and along dry washes. None of these habitats were observed on or in the immediate vicinity of the study areas. Townsend's big-eared bat (*Corynorhinus townsendii*) and the pallid bat (*Antrozous pallidus*) are both species of concern that are found in a variety of habitats, but almost always near caves, mines, or other roosting areas such as large trees, which are not found in the reservoir footprints. While some of the larger trees adjacent to the study areas could possibly provide roost sites for the pallid bat, no open cavities were observed in trees in the study area for Reservoir #1. It is possible that these highly mobile species could forage over the sites, but would not be adversely impacted by development of the two reservoirs since tree removal will not occur.

Southern California steelhead (*Oncorhynchus mykiss irideus*) is known to occur in the Santa Ynez River, to the south of the Rancho Sanja Cota Vineyard property. Southern California steelhead requires perennial creeks, and no suitable habitat for this species is present in the reservoir study areas on the property.

Similarly, other highly aquatic species such as the California red-legged frog (*Rana draytonii*), southwestern pond turtle (*Emys marmorata*), and two-striped garter snake (*Thamnophis hammondii*) are not expected to occur within the study area, based on the lack of suitable aquatic habitat. No drainage features or suitable aquatic habitat is present in the reservoir study areas. Smaller tributary drainage features to the Santa Ynez River are present on the Rancho Sanja Cota Vineyard property, but they are ephemeral features that do not contain the perennial water needed to support these primarily aquatic species. Furthermore, they are surrounded largely by active agricultural fields. The aquatic special status species are not expected to be found within the proposed impact areas for the two reservoirs, due to the lack of suitable habitat, high levels of disturbance and regular human presence in these areas.

Western spadefoot toad (*Spea hammondii*) is known to occur in and around seasonal wetland habitats such as vernal pools in valley and foothill grasslands. It is a small amphibian that burrows underground and lives during the dry months, and emerges during the winter to breed when vernal pools fill with water. No seasonal wetlands or vernal pools were observed in the reservoir study areas. Given the high levels of disturbance from agricultural activities such as plowing and disking within the study areas for Reservoirs #1 and #2, western spadefoot toad would not be able to survive within the reservoir study areas.

American badger (*Taxidea taxus*) is known to occur in valley and foothill grasslands throughout the Santa Ynez Valley, including farm and ranch lands. Although no American badger den sites or a significant prey base were observed on the Rancho Sanja Cota property, the species is highly mobile

and could occur on the ranch property, especially since ground squirrels (the American badger's main food source) are present at varying densities in other parts of the property. However, the two reservoir project sites are located in disturbed areas bare soil areas with regular disturbance and human presence, making it unlikely that American badger would den or forage in those locations. As stated above, the prey base was marginal in these areas and ample areas exist onsite for this species to occur outside the vineyard and reservoir development footprint.

Cooper's hawk (*Accipiter cooperii*) as well as several other raptors are species of concern, and could potentially occur on the larger vineyard property and periodically forage over the study areas. Cooper's hawk, which like all raptors are protected while nesting, is known to occur throughout the Santa Ynez Valley and was identified on the CNDDB search as nesting to the west of the Rancho Sanja Cota Vineyard property. This bird is found in wooded areas and nests in tall trees, including large oak trees. It often hunts around human structures. Cooper's hawk could nest in large trees on the property, including trees on or near the Reservoir #1 and #2 study areas. No stick nests were observed in the trees within or adjacent to the study areas during 2017 and 2018 field surveys, and larger more protected trees are present outside the study areas that could provide suitable nesting sites for this species.

Several special-status bird species not occurring on the CNDDB, but known to occur in the region, require riparian habitat, which is found in the Santa Ynez River to the east and west of the study areas. These include the southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo (*Vireo bellii pusillus)*, yellow warbler (*Dendroica petechia brewsteri*), and tri-colored blackbird (*Agelaius tricolor*). The southwestern willow flycatcher, least Bell's vireo, and yellow warbler typically nest in dense riparian habitat consisting of willows with well-developed understories in the vicinity of open water. Suitable habitat for these three species may be present within the Santa Ynez River, to the east and west of the property, but is not present on the reservoir study areas; therefore, these species would not be expected to nest on the site based on the lack of suitable habitat. The tri-colored blackbird is a highly colonial species that nests in dense cattails (*Typha* spp.) and tules (*Scirpus acutus*) growing along the margins of perennial aquatic sites, such as agricultural irrigation ponds, stock ponds, and streams. While this species is known to occur throughout the Santa Ynez Valley area, habitat with emergent vegetation, such as cattails that would provide suitable nesting habitat for this species, does not occur on the property. Therefore, it too is not expected to occur on the property or within proposed reservoir impact areas.

A number of non-riparian special-status bird species not identified in the CNDDB but known to occur in the area could potentially be found within the study area on a rare or seasonal basis. The California condor (*Gymnogyps californianus*), a federal and state endangered species, requires vast expanses of open savannah, grasslands, and chaparral in mountain ranges of moderate altitude. This species typically nests in deep canyons in the Santa Lucia and Santa Ynez Mountain Ranges and can forage up to 100 miles from their nest site. The California condor would be expected to occur on the property only as a rare transient, and is not expected to nest onsite.

Many of the raptorial birds known to occur in the region are species of special concern and are so listed primarily because their preferred habitats have been fractured and extensively reduced by agriculture and urbanization. Birds of prey, such as the sharp-shinned hawk (*Accipiter striatu*s), prairie falcon (*Falco mexicanus)*, golden eagle (*Aquila chrysaetos*), and white-tailed kite (*Elanus*

leucurus), have extensive ranges that cover many habitats and can be expected as rare to common transients flying over the study area. Sharp-shinned hawk and prairie falcon would not be expected to nest on the property, as they are winter residents of the area and the property does not contain suitable nesting habitat for prairie falcon; however, the latter two species could potentially nest within the oak trees away from active farming and human presence. They are not expected to nest within those trees in or in close proximity to the reservoir study areas. The northern harrier (*Circus cyaneus* or *C. hudsonius*) is a ground nesting bird that also has an extensive range and could potentially forage over the site or nest within larger, more extensive grassland habitats in the region. It would not be expected to nest in the thin strip of dense non-native grasslands within the study areas. The California horned lark (*Eremophila alpestris actia*), also a ground nesting species, and loggerhead shrike (*Lanius ludovicianus*) are two additional species that are known from the general region. Although they were not listed in the CNDDB, they have the potential to occur on the property, and could potentially forage over the study areas. No suitable nesting habitat is present for these species within the reservoir footprints.

The larger property's eastern boundary is located within 0.5 mile of Vernal Pool Fairy Shrimp Critical Habitat (see Figure 5, CNDDB Occurrence Map) further to the east, and the reservoir study areas are further away. Vernal pool fairy shrimp (*Branchinecta lynchi*) is an invertebrate (freshwater crustacean) species that is federally-listed as threatened. Individuals of the species are historically found scattered throughout Oregon and California, including along the California Coast Range Mountains of California, from Solano County to San Luis Obispo and Santa Barbara Counties. The shrimp occurs in vernal pools (shallow depressions that hold water seasonally), swales (shallow drainages that collect and hold water seasonally), and ephemeral freshwater habitats. No suitable wetland or potential vernal pool habitats were identified in the reservoir study areas, and given the sites have been disked and plowed for many years and soils are well-drained, this species is not expected to occur within the reservoir project sites. Therefore, the proposed development of two reservoirs would not be expected to impact the vernal pool fairy shrimp or any potentially suitable habitat.

CONCLUSION AND RECOMMENDATIONS

The Rancho Sanja Cota Vineyard property contains primarily agricultural lands bisected by natural drainage features with a mix of native oak woodland/savanna and grassland habitats. The study areas developed for the reservoir project contain agriculture, annual grassland and oak woodland/savanna habitats as shown on Figures 3A and 3B. The reservoirs are proposed to be constructed in existing disturbed areas with a small portion of Reservoir #1 abutting annual grassland along a slope. Oak trees are also present in the Reservoir #1 study area, but the reservoir was sited in open bare soil areas to avoid impacting trees. It is our understanding that typical construction best management practices including the installation of orange protection fencing or highly visible staking around the protected oak trees will be implemented to ensure construction activities do not accidentally impact individual trees or their critical root zone, which are typically 1.5 times the distance from the trunk to the outer limits of leaves and branches.

Two oak trees visible on the aerial imagery used to prepare the maps in this study are no longer present and were removed during initial agricultural improvements on the property. Based on aerial imagery review, the trees appear to include one coast live oak and one valley oak in the center of what is proposed as Reservoir #1. No further impacts to oak trees are anticipated for the construction of the proposed project. Should plans change and impacts to individual oak trees occur during construction of the reservoir projects, mitigation should occur in the form of replacement planting. Current County of Santa Barbara oak tree mitigation guidelines should be followed, which includes a 10:1 replacement ratio for trees six inches or greater in diameter, and a minimum of seven years of monitoring and reporting post planting to ensure the replacement trees successfully establish on the site.

Based on the findings of field work conducted over the course of multiple seasons in 2017-2018 coupled with background literature review, no special status plants or plant communities occur in the reservoir disturbance areas, and none will be affected by the reservoir project. Similarly, no special status wildlife are expected to occur within the reservoir construction footprint. There is potential for a variety of birds including species of concern to nest in trees adjacent to the construction zones. Known nesting sites for birds-of-prey and other migratory birds are protected by the California Fish and Game Code (Fish and Game Code) and the Migratory Bird Treaty Act (MBTA). In practice, abiding by the Fish and Game Code and the MBTA and reducing impacts to nesting birds usually means avoiding removal of trees, shrubs, and other habitats, including grassland, with active nests until adults and young are no longer reliant on the nest site. Reducing indirect impacts to nesting birds also requires avoiding work that would result in noise and construction activity in close proximity to a nest that would disrupt bird nesting activities. The nesting season is typically defined as February 15th through August 31st. Construction of the reservoirs, if carried out during the nesting bird season, could disrupt nesting bird activities if an active nest was present in the trees adjacent to the construction zone.

In order to avoid impacts to nesting birds, if initial construction of a reservoir commences between February 15th and August 31st, it is recommended that a pre-construction clearance survey be conducted for nesting birds (as well as other wildlife) to avoid indirect impacts to nesting activities. The survey should be conducted by a qualified biologist within two weeks of initial construction activities to determine if an active nest is present within 500 feet of the reservoir disturbance area. If an active nest is present, the biologist should evaluate the proximity of the nest to the project site and whether or not construction activities can proceed based on the particular species and their sensitivity to human activities. A no disturbance buffer zone should be established around the nest site based on the species present, and no construction activities allowed in that area until the young have fledged and are no longer reliant on the nest. A larger buffer up to 500 feet may be required for raptors and a reduced distance of 75 feet may be appropriate for common songbirds, and can be field fit based on surrounding vegetation and slope aspect. The biologist may also be able to monitor initial construction activities to determine if they are adversely impacting nesting activities and confirm the buffer around the nest site is sufficient to avoid impacting the nesting birds. Reports documenting the methods and results of the surveys should be prepared and submitted to the County of Santa Barbara and other involved regulatory agencies.

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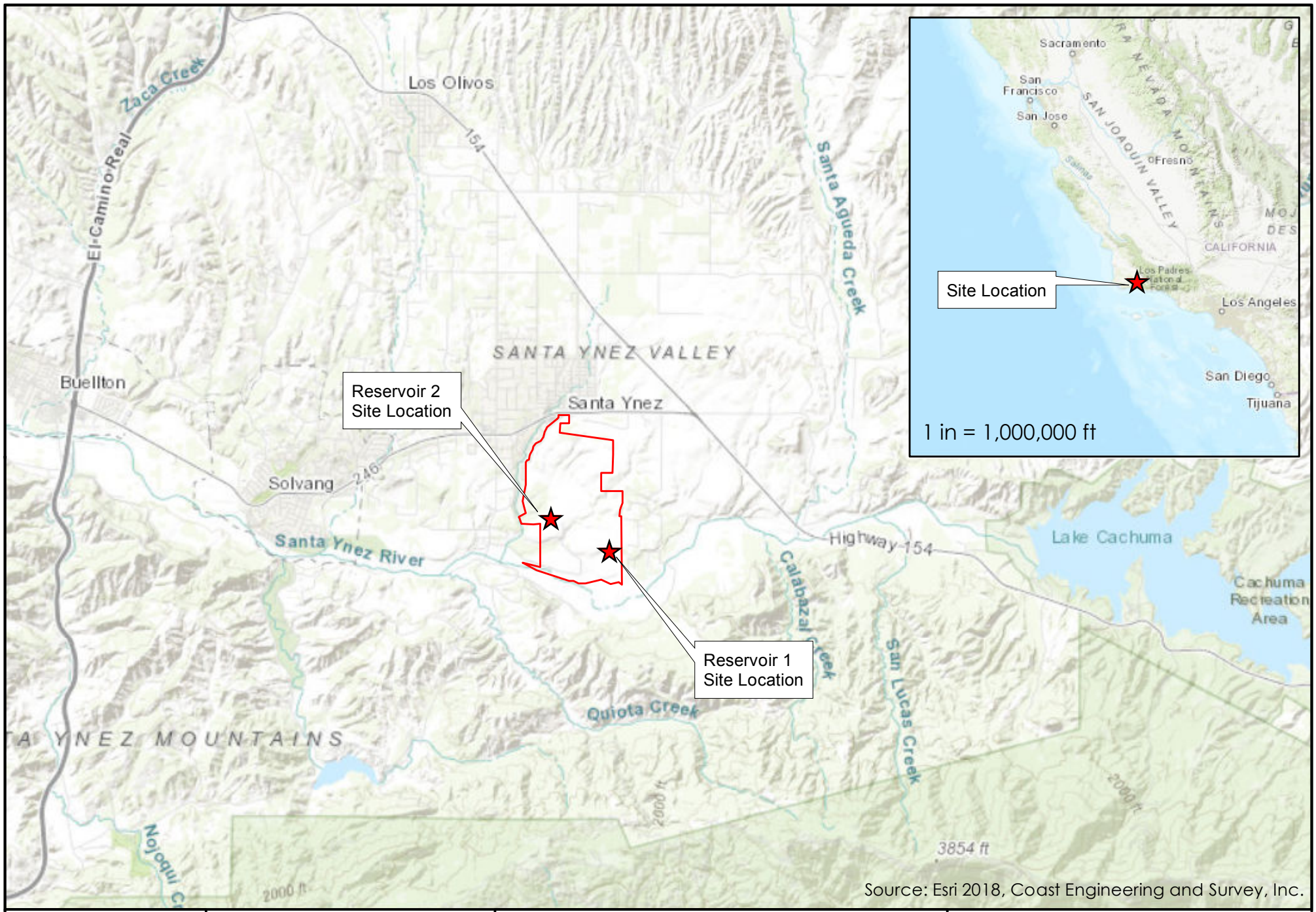
Thank you for the opportunity to provide environmental consulting services for this project. We trust that the above information will assist with your reporting requirements at this time. If you have any questions regarding the above findings, please contact Kevin Merk directly by phone at 805-748-5837 or via email at kmerk@kevinmerkassociates.com.

Sincerely,
KEVIN MERK ASSOCIATES, LLC

Kevin B. Merk
Principal Biologist

Attachments
Figure 1 - Site Location Map
Figure 2 – Aerial Overview Map
Figure 3A – Reservoir 1 Habitat Map
Figure 3B - Reservoir 2 Habitat Map
Figure 4 – Soil Map
Figure 5 – CNDDB Occurrence Map
Photo Plate
Table 1 – Special-Status Species Occurrence Table
Table 2 – List of Species Observed Onsite



Source: Esri 2018, Coast Engineering and Survey, Inc.

KEVIN MERK ASSOCIATES

1 in = 10,000 ft

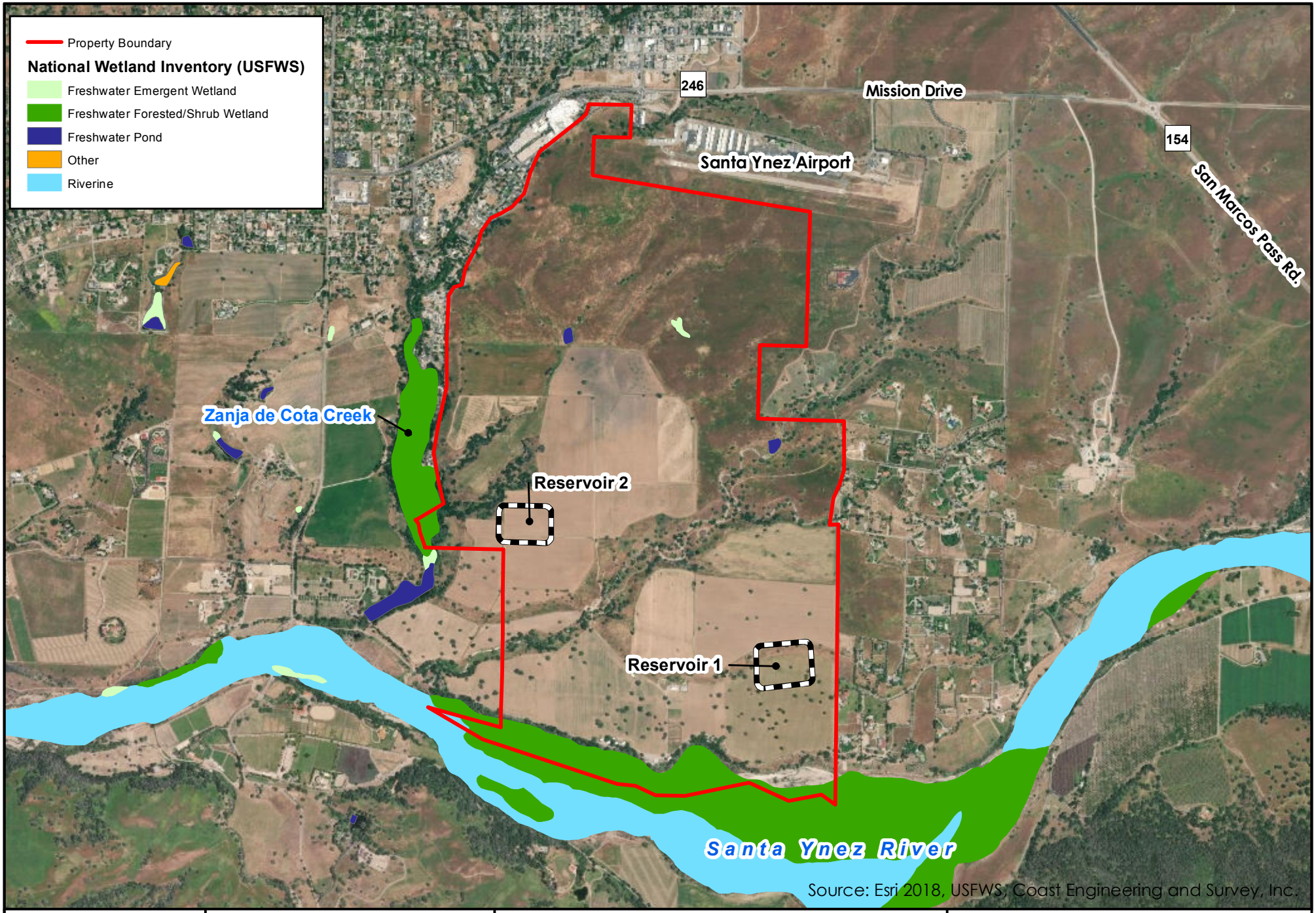
0 0.5 1 2 Miles

Rancho Sanja Cota Reservoir Project

LTC - Rancho Sanja Cota Vineyard

Figure 1

Site Location



KEVIN MERK ASSOCIATES

1 in = 2,000 ft

0 650 1,300 2,600 Feet

Rancho Sanja Cota Reservoir Project

LTC - Rancho Sanja Cota Vineyard

Figure 2

Aerial Overview

KEVIN MERK ASSOCIATES

N W E S

1 in = 200 ft

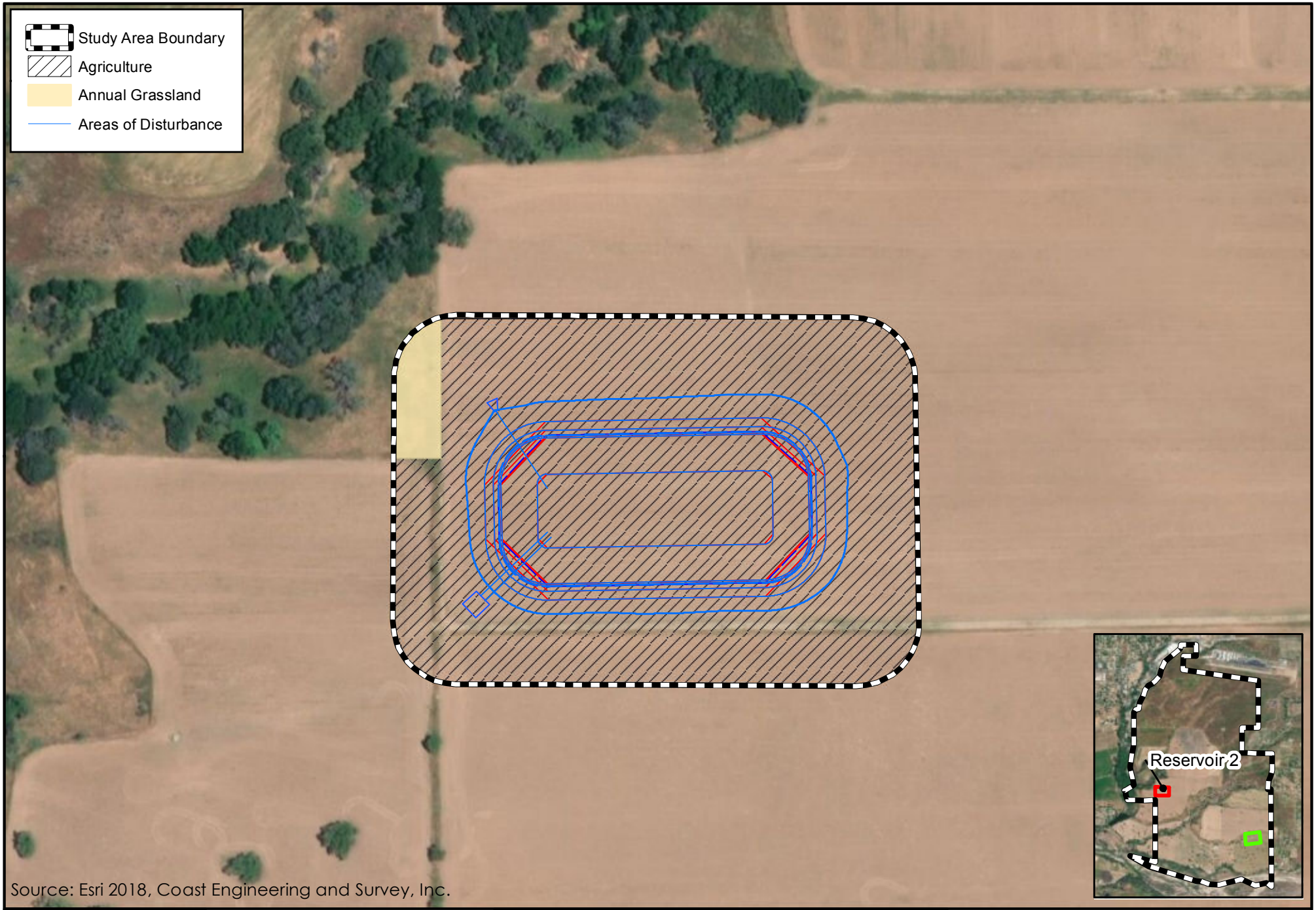
0 65 130 260 Feet

Rancho Sanja Cota Reservoir Project

LTC - Rancho Sanja Cota Vineyard

Figure 3A

Reservoir 1 Habitat Map



KEVIN MERK ASSOCIATES

1 in = 200 ft

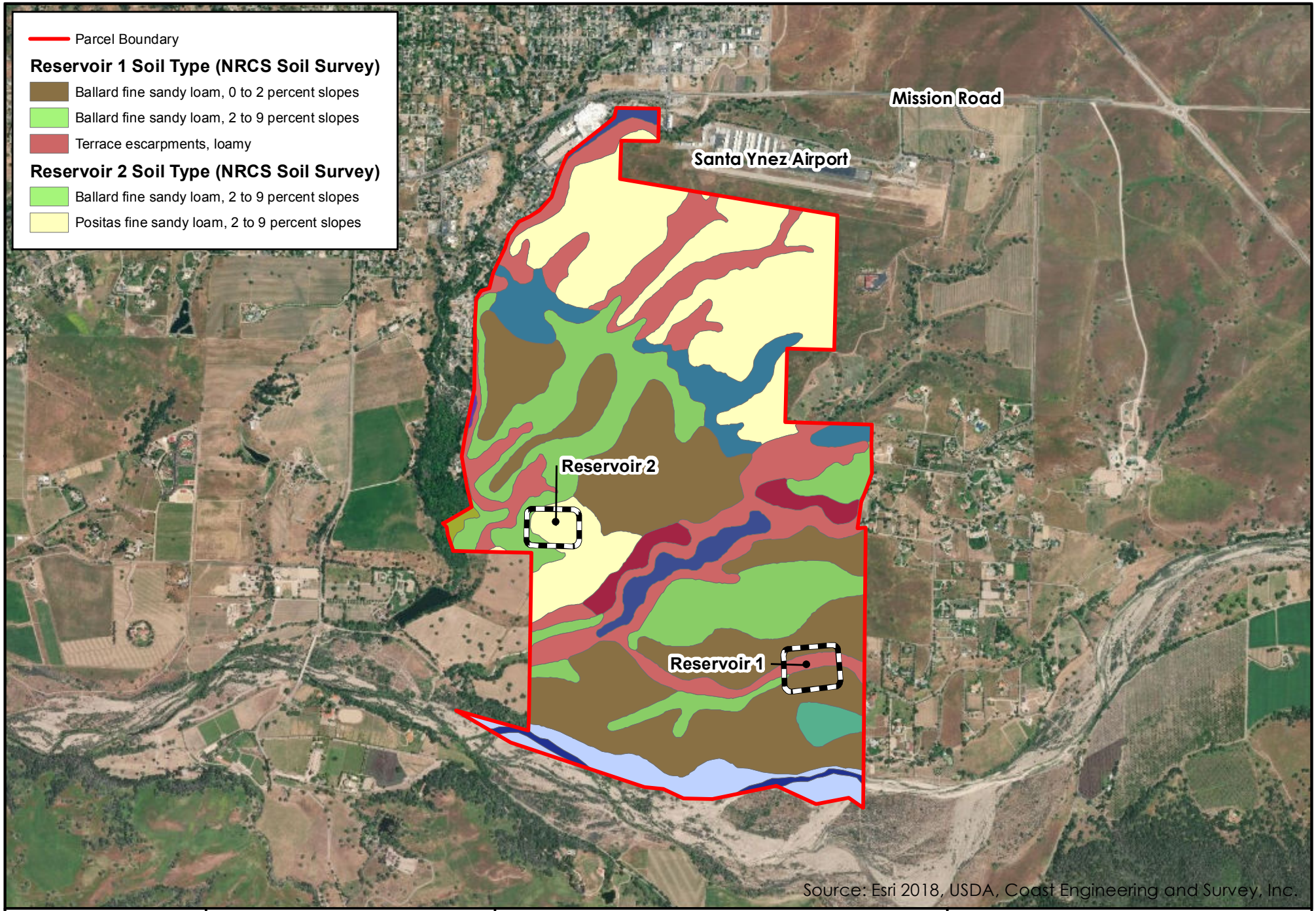
0 65 130 260 Feet

Rancho Sanja Cota Reservoir Project

LTC - Rancho Sanja Cota Vineyard

Figure 3B

Reservoir 2 Habitat Map



KEVIN MERK ASSOCIATES

N W E S

1 in = 2,000 ft

0 650 1,300 2,600 Feet

Rancho Sanja Cota Reservoir Project

LTC - Rancho Sanja Cota Vineyard

Figure 4

Soil Map

- Parcel Boundary
- Reservoir 1
- Reservoir 2
- Five Mile Buffer
- USGS 7.5' Quad

CNDDB Occurrence (Sept. 2018)

- California red-legged frog
- Chaparral ragwort
- Coast horned lizard
- Coast Range newt
- Cooper's hawk
- Coulter's goldfields
- Crotch bumble bee
- Great blue heron
- Hoover's bent grass
- Late-flowered mariposa-lily
- Ojai fritillary
- Purple martin
- Refugio manzanita
- Santa Barbara honeysuckle
- Santa Ynez false lupine
- Seaside bird's-beak
- Southern California Steelhead Stream
- Southern Coast Live Oak Riparian Forest
- Southern Cottonwood Willow Riparian Forest
- Southern curly-leaved monardella
- Southern Vernal Pool
- Southern Willow Scrub
- Steelhead - southern California DPS
- Townsend's big-eared bat
- Two-striped gartersnake
- Umbrella larkspur
- Western pond turtle
- White-veined monardella

Critical Habitat (CDFW/USFWS)

- California red-legged frog
- Vernal pool fairy shrimp
- Steelhead

Zaca Creek
Los Olivos
Figueroa Mtn.
Buellton
Text
Lake Cachuma
Solvang
Santa Ynez
Source: Esri 2018, CNDDB 2018, USFWS 2018

KEVIN MERK ASSOCIATES

1 in = 7,000 ft
0 0.75 1.5 3 Miles

Rancho Sanja Cota Reservoir Project

LTC - Rancho Sanja Cota Vineyard

Figure 5

CNDDB Occurrence Map

Photo Plate

Photo 1. Northerly overview of Reservoir 1 location showing plowed agricultural field, a small slope of annual grassland and a scattered mix of valley and coast live oak trees.

Photo 2. Southerly overview of Reservoir 1 location looking towards the Santa Ynez River. Reservoir 1 is sited in a plowed field, a thin strip of weedy annual grassland with scattered oak trees.

Photo 3. Close up view of slope within the Reservoir 1 study area showing weedy species and scattered oak trees.

Photo 4. Westerly view of Reservoir 2 location showing existing agricultural footprint and bare soils.

Photo 5. Easterly view of Reservoir 2 location bounded by ag road.

Photo 6. Reservoir 2 is located entirely within disturbed agricultural footprint. Oak trees and annual grassland habitat are present on the slope outside the disturbance area that was included in the northwest corner of study area.

Table 1. Special-Status Species Occurrence Table

Species	Status* Fed/CA/CNPS	Habitat Requirements	Project Site Suitability/Observations
PLANTS			
Chaparral ragwort *Senecio aphanactis*	--/--/2B.2	Annual herb; chaparral, cismontane woodland, coastal scrub in drying alkaline flats; 15-800 meters in elevation; blooms January to April.	**Not expected.** Not observed during field surveys and no alkaline soils or alkaline flats present. Therefore, this species would not be expected to occur onsite or be impacted by reservoir construction activities.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	--/--/1B.1	Annual herb that grows in coastal salt marshes, playas, valley and foothill grassland, and vernal pools usually on alkaline soils from 1- 1,400 meters. Blooms February through June.	**Not expected.** Species was not observed during field surveys and no suitable habitat is present within the two study areas. Therefore, this species is not expected to occur onsite or be impacted by reservoir construction activities.
Hoover's bent grass *Agrostis hooveri*	--/--/1B.2	Perennial herb; blooms April through July; found typically occurring on sandy soils in open chaparral, grassland, or oak woodland, at elevations below 600 meters.	**Not expected.** Not observed during surveys, and given the disturbed nature of the reservoir sites, it is not expected to occur or be affected by construction activities on the site.
Late-flowered mariposa-lily *Calochortus weedii* var. *vestus*	--/--/1B.3	Perennial bulbiferous herb; blooms June through August; often found in serpentinite/ rocky soils in chaparral, cismontane woodland, and riparian forest at elevations of 275-1,905 meters.	**Not expected.** Not observed during surveys. All known occurrences are in montane areas surrounding the Santa Ynez Valley. No suitable habitat or soils present in reservoir study areas. Therefore, this species is not be expected to occur within the two reservoir study areas or be impacted by reservoir construction activities on the site.
Ojai fritillary *Fritillaria ojaiensis*	--/--/1B.2	Perennial bulbiferous herb; blooms February through May; found typically in rocky soils within chaparral, valley grassland, foothill woodland, and wetland riparian areas at elevations of 10 to 1,555 meters.	**Not expected.** Not observed during surveys and no suitable habitat present in reservoir study areas. Grassland on slopes was dominated by weedy non-native species . Therefore, this species is not expected to occur within the study areas or be impacted by reservoir construction activities.
Refugio manzanita *Arctostaphylos refugioensis*	--/--/1B.2	Perennial evergreen shrub; blooms December through March; found in chaparral located in sandstone.	**Not expected.** No suitable habitat or sandstone substrate present. This perennial shrub was not observed during field surveys and is not expected to occur within the two reservoir sites or be affected by construction activities on the site.
Santa Barbara honeysuckle *Lonicera subspicata* var. *subspicata*	--/--/1B.2	Perennial vining shrub that occurs in chaparral, coastal scrub and cismontane woodlands, typically from 5-825m. Blooms May to August.	**Not expected.** No suitable habitat present in study areas and not observed during field surveys. In addition, no species of honeysuckle observed in surrounding areas.

Table 1. Special-Status Species Occurrence Table

Species	Status* Fed/CA/CNPS	Habitat Requirements	Project Site Suitability/Observations
Santa Ynez false lupine *Thermopsis macrophylla*	--/--/1B.3	Perennial herb occurs in chaparral, typically open areas on sandstone at elevations ranging from 365m to 1100m; blooms April to June.	**Not expected.** No suitable habitat present onsite and not observed during surveys. Species is known to occur further south of study areas in mountainous terrain of the Santa Ynez Mountains.
Seaside bird's beak *Cordylanthus rigidus* ssp. *littoralis*	--/E/1B.1	Hemiparasitic annual herb occurs in coastal scrub, maritime chaparral, and various woodland habitats, typically on coastal sands; blooms April to October.	**Not expected.** No suitable habitat present onsite and not observed during surveys. Species is known to occur in maritime chaparral habitat on the Burton Mesa near Lompoc and this is a questionable occurrence record from 1968 in the coast side Refugio Pass area.
Southern curly-leaved monardella *Monardella undulata*	--/--/4.2	Annual herb; blooms May through September; occurs on coastal dunes and sandy soils in coastal strand, chaparral, northern coastal scrub, coastal sage scrub habitats at elevations below 300 meters.	**Not expected.** Not observed during field surveys and no suitable habitat, including pre-Flandrian sands (coastal dunes), present on site. Not expected to occur within the study areas or be affected by reservoir construction activities.
Umbrella larkspur *Delphinium umbraculorum*	--/--/1B.3	Perennial herb; found in granite of cismontane woodlands, chaparral, and coastal scrub; 85-1,035 meters in elevation; blooms May to July.	**Not expected.** Not observed during surveys and no suitable habitat or granite substrate present. This species is not expected to occur within the site or be affected by construction activities on the site.
White-leaf monardella *Monardella hypoleuca* ssp. *hypoleuca*	--/--/1B.3	Perennial herb occurs on dry slopes in cismontane woodland and chaparral typically on the coast side of Santa Ynez Mountains; blooms June to August.	**Not expected.** Not observed during surveys and no suitable habitat present onsite. This species occurs further south of the study areas in mountainous terrain on the coast side of mountains and the larger search area included this location.
WILDLIFE			
American badger *Taxidea taxus*	--/-SSC/--	Grasslands, sagebrush, and open juniper and pine woodlands. Digs elliptical burrows 12 inches wide for shelter, and digs out burrowing rodents and snakes for prey. Active year-round, but stays in burrow in extreme cold.	**Unlikely.** Agricultural areas where the reservoirs will be located are not suitable habitat for the species. Grasslands and oak woodland/savanna habitats are present on the greater Rancho Sanja Cota property, and these areas could provide suitable habitat for badgers. Also, ground squirrels and other prey base are present onsite, and the species could move through the reservoir sites during foraging activities. Not expected to den within the reservoir study areas due to regular cycle of disturbance from farming and the high levels of human presence.

Table 1. Special-Status Species Occurrence Table

Species	Status* Fed/CA/CNPS	Habitat Requirements	Project Site Suitability/Observations
California red-legged frog *Rana draytonii*	T/ SSC /--	Lowland and foothills in or near permanent or semi-permanent sources of deep water (at least 0.5 meter) with emergent wetland and/or riparian vegetation. May use a variety of aquatic and upland habitats for refugia and dispersal.	**Not expected.** No suitable habitat present within the reservoir study areas. Further, no permanent water sources providing suitable habitat present vicinity of the two reservoir sites. The nearest CNDDB occurrences are approximately 2 miles to the east and approximately 2.5 miles to the south, in a tributary to the Santa Ynez River. While suitable habitat is present in the Santa Ynez River corridor to the south, it is unlikely that California red-legged frogs would be affected by reservoir construction activities on the property.
Coast horned lizard *Phrynosoma blainvillii*	--/SSC/--	Scrubland, grassland, coniferous forests, and broadleaf woodland. Widely distributed in Sonoran Desert habitats, coastal sage in northwest California, and arid scrub in south. Common in lowlands along sandy washes where scattered low shrubs provide cover. Requires open areas for basking; patches of fine, loose soil to bury in; and harvester ants as primary food source.	**Not expected**. Reservoir study areas lack suitable habitat consisting of loose friable soils in coastal or riparian scrub to support this species. Site is actively farmed with regular cycle of soil disturbance, which precludes reptiles from using the site. Not expected to occur or be affected by reservoir construction activities.
Coast Range newt *Taricha torosa*	--/--/SSC	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats moves during winter rain season to areas of aquatic habitat, typically in slow moving streams.	**Not expected.** Study areas do not support suitable habitat for this species since no drainage features or seasonal aquatic habitats are present. Known to occur further south in the more mountainous areas of the Santa Ynez Mountains.
Cooper's hawk *Accipiter cooperii*	--/WL/-- (nesting)	Wooded areas. Nests in tall trees and often hunts around human structures.	**Potential.** Suitable roosting and nesting habitat is present in larger oak trees within and immediately adjacent to the two reservoir sites. Trees in the study areas were searched for stick nests indicative or raptors, and none were found. Still suitable habitat (both foraging and nesting) is present in the reservoir study areas.
Crotch bumble bee *Bombus crotchii*	--/ SSC / --	Open grassland and scrub habitats from central California to Baja California del Norte, Mexico, including the western edges of the deserts and the Central Valley. Not found in the mountains or cool north coastal areas of California	**Unlikely**. Sites lack sufficient pollen sources and the general vegetative diversity to attract or support the species. Unlikely to be affected by reservoir construction activities on the site.

Table 1. Special-Status Species Occurrence Table

Species	Status* Fed/CA/CNPS	Habitat Requirements	Project Site Suitability/Observations
Great blue heron *Ardea herodias*	--/--/WL	Marshes, lake margins, tide-flats, rivers, and wet meadows. Nests communally in large trees and cliff sides, typically adjacent to marshes and water bodies. Rookery site are in close proximity to foraging areas.	**Not expected.** No aquatic habitat within the study areas. Oak trees in the vicinity of the reservoirs were searched and no signs of heron nests observed.
Pallid bat *Antrozous pallidus*	--/--/SSC	Roosts in rock crevices, caves, mine shafts, under bridges, in buildings and tree hollows.	**Unlikely**. Marginal roosting habitat present in trees in Reservoir 1 location. Would be expected to forage throughout the property given extensive open areas in the region with higher quality and more suitable roost sites located outside the reservoir disturbance areas.
Purple martin *Progne subis*	--/--/SSC	Breeds near human settlements where nest houses are provided, especially near water and large open areas. Also nests in tree cavities in western montane forests around beaver ponds. In winter, feeds in clearings, and agricultural areas.	**Unlikely.** Oak trees are present in the study area for Reservoir #1 that could provide marginal nesting habitat for the species. No nesting habitat within the construction footprint.
Southern Pacific (western) pond turtle *Emys marmorata*	--/SSC/--	Highly aquatic species found in pools and channels of creeks and rivers. Uses basking sites such as partially submerged logs, vegetation mats, or open mud banks. Aestivates under water, often in muddy bottom of pool or by burying itself in soft bottom mud during dry summer months.	**Not expected.** No suitable aquatic habitat present within the reservoir study areas. Suitable habitat for this species is present in the Santa Ynez River corridor to the south and Zanja Cota Creek to the west. Pond turtles are known to move through upland habitat while foraging or in between areas of suitable habitat; however, no suitable aquatic habitat is present onsite or in the vicinity of the proposed reservoirs that could be used by turtles. Based on the lack of suitable habitat and separation of the reservoir study areas from the Santa Ynez River, pond turtles are not expected to occur within the study areas or be affected by reservoir construction activities.
Steelhead – South/Central California ESU *Oncorhynchus mykiss irideus*	T/SSC/--	Fresh water, fast flowing, highly oxygenated, clear, cool stream where riffles tend to predominate pools.	**Not expected.** No suitable habitat present within the two reservoir study areas. The Santa Ynez River abuts the property to the south and is identified by USFWS as critical habitat for the species. Reservoir sites are located away from natural drainage features and this species is not expected to occur in the ephemeral drainage features on the site. Not expected to occur or be affected by reservoir construction activities.
Townsend's western big-eared bat *Corynorhinus townsendii townsendii*	--/-SSC/--	Requires caves, tunnels, mines, or similar man-made structures for roosting. This bat feeds primarily on moths, but will eat a variety of soft-bodied insects.	**Not expected.** No suitable roosting habitat present onsite. Suitable foraging habitat present throughout the site, so could occur as a forager flying over the site, but not expected to roost within the study area. Species is not expected to be affected by reservoir construction activities.

Table 1. Special-Status Species Occurrence Table

Species	Status* Fed/CA/CNPS	Habitat Requirements	Project Site Suitability/Observations
Two-striped garter snake *Thamnophis hammondii*	--/SSC/--	Generally found around pools, creeks, cattle tanks, and other water sources, often in rocky areas, in oak woodland, chaparral, brushland, and coniferous forest.	**Not expected.** No suitable aquatic habitat, with long-lasting water present in the reservoir study areas. Species is not expected to occur onsite or be affected by reservoir construction activities.
Vernal pool fairy shrimp *Branchinecta lynchi*	T/--/SSC	Endemic to vernal pools in grasslands of the Central Coast mountains and valleys; inhabits small clear water depressions and swales. Able to complete its life cycle in shallow puddles with little to no current in 16 days.	**Not expected.** Vernal pools are not present within the reservoir study areas. No areas of seasonal ponding or topographic depressions capable of supporting sufficient aquatic habitat for this species observed during surveys. Not expected to occur in reservoir study areas or be affected by reservoir construction activities.
Western spadefoot toad *Spea hammondii*	--/-SSC/--	Washes, floodplains of rivers, alluvial fans, playas, and alkali flats. Occurs primarily in lowlands, but also ranges into foothills and mountains. Found in valley and foothill grasslands, open chaparral, and pine-oak woodlands. Prefers areas of open vegetation and short grasses where soil is sandy or gravelly.	**Not expected.** No vernal pool habitat present within the reservoir sites. The sites are regularly disturbed through disking and farming activities. Species is not expected to occur or be affected by reservoir construction activities.
NATURAL COMMUNITIES OF SPECIAL CONCERN			
Southern California Steelhead Stream			Not present in reservoir study areas. Occurs in Santa Ynez River, just south of property.
Southern Coast Live Oak Riparian Forest			Not present in reservoir study areas. Occurs along Zanja de Cota Creek to the west of the site.
Southern Cottonwood Willow Riparian Forest			Not present in reservoir study areas. Occurs in Santa Ynez River, just south of property.
Southern Vernal Pool			Not present in reservoir study areas. Occurs further east of the site east of HWY 154.
Southern Willow Scrub			Not present in reservoir study areas. Occurs in Santa Ynez River, just south of property.
CRITICAL HABITAT AREAS			
California red-legged frog			Not present onsite.
Steelhead			Not present onsite.
Vernal Pool Fairy Shrimp Critical Habitat			Not present onsite. Occurs within 0.5 mile of the Property, to the northeast. No critical habitat attributes observed in the reservoir study areas.

**E = Endangered; T = Threatened; R = Rare CE = Candidate for Endangered Status; SSC = California Species of Special Concern; FP = Fully Protected; WL = Watch List; SA – Special Animal; '—' = no status; List 1B – Rare, threatened, or endangered in California and elsewhere; List 2 – Rare, threatened or endangered in California, but more common elsewhere; List 4 – Limited distribution (Watch List). Source: California Natural Diversity Database (California Department of Fish and Wildlife 2018); California Native Plant Society Online Inventory of Rare Plants, accessed July 2018 (online at www.cnps.org); Special Animals List (California Department of Fish and Wildlife 2018); Special Vascular Plants, Bryophytes, and Lichens List (California Department of Fish and Wildlife 2018).*

Table 2 – List of Plants and Animals Observed Onsite.

Scientific Name	Common Name
Plants	
Amsinckia intermedia	Common fiddleneck
Asclepias fascicularis	Narrow-leaved milkweed
*Atriplex semibaccata**	Australian saltbush
*Avena barbata**	Slender wild oats
Baccharis pilularis	Coyote brush
*Brassica nigra**	Black mustard
*Bromus diandrus**	Ripgut brome
*Bromus hordeaceus**	Soft chess
Bromus madritensis ssp. *rubens**	Red brome
Convolvulus arvensis	Field bindweed
*Carduus pycnocephalus**	Italian thistle
*Centaurea calcitrapa**	Purple star thistle
*Centaurea solstitialis**	Yellow star thistle
Chlorogalum pomeridianum v. *pomeridianum*	soaproot
*Conium maculatum**	Poison hemlock
Croton setigerus	Dove weed
*Cynodon dactylon**	Bermuda grass
*Erodium botrys**	Filaree
*Erodium cicutarium**	Red-stemmed filaree
Eschscholzia californica	California poppy
*Festuca perennis**	Italian rye grass
*Hirschfeldia incana**	Summer mustard
Hordeum murinum ssp. *leporinum**	Foxtail
*Lactuca serriola**	Wild lettuce
*Lamarckia aurea**	Goldentop grass
*Lysimachia arvensis**	Scarlet pimpernel
*Malva nicaaensis**	Bull mallow
*Marrubium vulgare**	White horehound
*Medicago polymorpha**	Bur clover
*Melilotus indica**	Sweet cicily
Phalaris aquatica	Harding grass
Quercus agrifolia	Coast live oak
Quercus lobata	Valley oak
Salsola tragus	Russian thistle
Sambucus nigra ssp. caerulea	Blue elderberry
*Sonchus asper**	Prickly sow thistle
Trichostema lanceolatum	Vinegar weed
Vicia villosa ssp. *villosa**	Hairy vetch
Animals	
Aphelocoma corulescens	Scrub jay
Baeolophus inornatus	Oak titmouse
Bubo virginianus	Great horned owl (oak se corner Res 1 study area)
Buteo jamaicensis	Red-tailed hawk (flyover)
Buteo lineatus	Red-shouldered hawk (flyover)
Calypte anna	Anna's hummingbird
Canis latrans	Coyote (scat)
Cathartes aura	Turkey vulture (flyover)
Charadrius vociferous	killdeer

Scientific Name	Common Name
Corvus brachyrhynchos	American crow
Euphagus cyanocephalus	Brewer's blackbird
Falco sparverius	American kestrel
Melanerpes formicivorus	Acorn woodpecker (in neighboring trees)
Mimus polyglottos	Northern mockingbird
Pooecetes gramineus	Vesper sparrow
Sayornis saya	Say's phoebe
Spermophilus beecheyi	California ground-squirrel
Sturnus vulgaris	European starling
Thomomys bottae	Botta's pocket gopher
Zenaida macroura	Mourning dove

*Asterisk identifies non-native plant species

Attachment 3

5. 16-AP-008 The Wine Group Irrigation and Frost Protection Reservoir Santa Ynez
18CUP-00000-00027 Steve Rodriguez, Planner (805) 568-2000

18CUP-00027

Consider the request of Brett Jones, agent for the owner, The Wine Group, LLC, of Case No. 18CUP-00000-00027 regarding a new reservoir for irrigation and frost protection for approximately 300 acres of vineyard and its consistency with the Uniform Rules and consider ongoing eligibility of the property as an agricultural preserve consistent with the Uniform Rules and any enforcement actions pursuant to Uniform Rule 6. The affected property is 134.53 acres identified as Assessor's Parcel Number 141-440-031 zoned AG-II-100 with an AC Comprehensive Plan designation located at 850 Airport Road in the Santa Ynez area, Third Supervisorial District. The total Agricultural Preserve contract covers 694 acres and consists of 7 additional Assessor's Parcels, Numbers 141-440-011, 141-440-012, 141-440-013, 141,440-023, 141-440-026, 141-440-030, and 141,440-032.

ACTION: Lackie moved, seconded by Ricardo, and carried by a vote of 4-0 (Jevremovic absent) to: find the request for a new reservoir for irrigation and frost protection consistent with the Uniform Rules.

6. 07-AP-037 The Wine Group Irrigation and Frost Protection Reservoir Santa Ynez
18CUP-00000-00028 Steve Rodriguez, Planner (805) 568-2000

Consider the request of Brett Jones, agent for the owner, The Wine Group, LLC, of Case No. 18CUP-00000-00028 regarding a new reservoir for irrigation and frost protection for approximately 300 acres of vineyard and its consistency with the Uniform Rules and consider ongoing eligibility of the property as an agricultural preserve consistent with the Uniform Rules and any enforcement actions pursuant to Uniform Rule 6. The affected property is 237.51 acres identified as Assessor's Parcel Number 141-440-017 zoned AG-II-100 with an AC Comprehensive Plan designation located at 850 Airport Road in the Santa Ynez area, Third Supervisorial District. The total Agricultural Preserve contract covers 373 acres and consists of 4 additional Assessor's Parcels, Numbers 141-440-016, 141-440-018, 141-440-019, and 141-440-020.

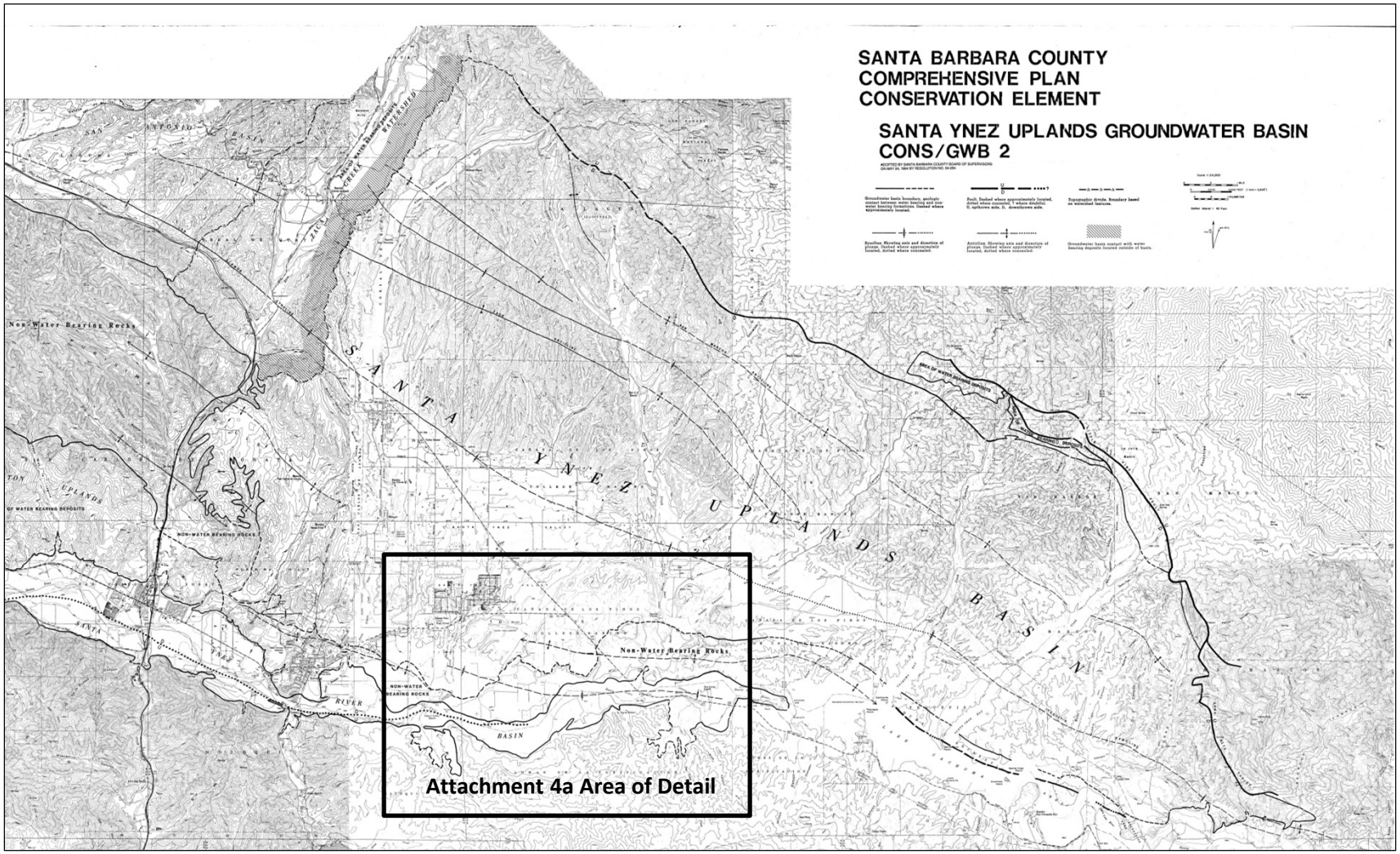
18CUP-00028

ACTION: Lackie moved, seconded by Ricardo, and carried by a vote of 4- 0 (Jevremovic absent) to: find the request for a new reservoir for irrigation and frost protection consistent with the Uniform Rules.

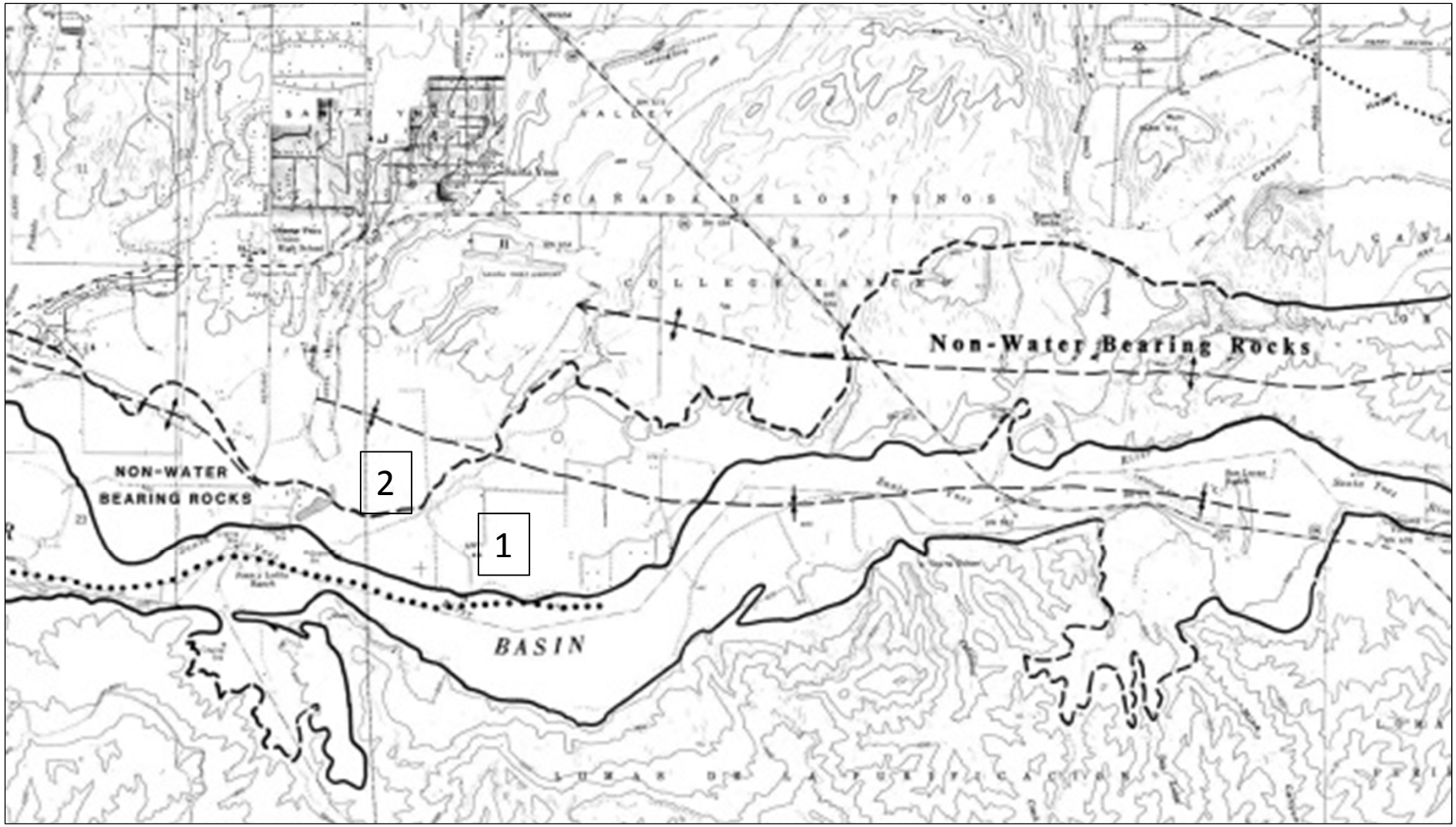
7. ~~73-AP-009~~ Healy & Associates Cannabis Cultivation Los Alamos
18LUP-00000-00415 Brianna Wiley, Planner (805) ~~568~~-3510

Consider the request of Jay ~~Higgins~~ agent for the owner, Matt ~~Healy~~, of Case No. 18LUP-00000-00415 regarding proposed outdoor cannabis cultivation and its consistency with the Uniform Rules, and consider ongoing eligibility of the property as an agricultural preserve consistent with the Uniform Rules and any enforcement actions pursuant to Uniform Rule 6. The property is 99.78 acres identified as Assessor's Parcel Number 099-030-007, zoned AG-II-100 with an AC Comprehensive Plan designation located at 2900 Highway 135 in the Los Alamos area, Fourth Supervisorial District.

Attachment 4



Attachment 4a



1 Approximate Location of Reservoir No. 1

2 Approximate Location of Reservoir No. 2

COAST ENGINEERING & SURVEY, INC

San Luis Obispo P.O. Box 13127, CA 93406
Buellton P.O. Box 869, CA 93427
Santa Barbara P.O. Box 1261, CA 93116

Date: October 4, 2018

To: County of Santa Barbara Planning and Development

Subject: Evaporative Loss Determination for Sanja Cota Vineyard Frost Protection Project
Lone Tree Creek Vineyard
Reservoir #1: 18CUP-00000-00027,
Reservoir #2: 18CUP-00000-00028,
APN: 141-440-031, 141-440-017
850 Airport Road, Santa Ynez, CA. 93460

To whom it may concern,

The following memo summarizes the calculated anticipated losses for the subject project.

Introduction:

Grapevines are sensitive to frost and can be damaged quickly by the cold temperatures. In order to reduce the risk of damaging the grapevines during a frost event, water can be applied to the plants via overhead sprinklers. The sprinklers turn on during a frost event, and supply a continuous blanket of liquid water that freezes and releases heat through a process called the latent heat fusion, protecting the grapevine tissues. Frost protection reservoirs are a vital asset to protect grapevines during the growing season.

A frost reservoir is typically constructed with a 40mm thick HDPE plastic liner which is anchored at the top of the reservoir to eliminate the opportunity for infiltration. Existing site agricultural wells pump groundwater into the reservoir for storage and use during a frost event. Further, the reservoir supplies a buffer for normal operation of the drip irrigation system. Frost has the most potential to occur during the months of February, March and April in this area . These months are identified as frost season and will require the reservoir to remain full in anticipation of a frost event.

As a result of the "open top" construction of a frost reservoir, evaporative losses will occur. During “non-frost” months (May through January) the reservoir should be kept at or below a design depth that will allow for normal operation of the drip irrigation system. Since evaporative losses are categorized as water use/consumption, it is important to analyze and compare the estimated evaporation against the allowable threshold of significance as defined by the Santa Barbara County’S Environmental Thresholds and Guidelines Manual. The Threshold of Significance is a point where the projects consumption of groundwater from a specific groundwater basin or aquifer is considered significantly adverse. For frost protection reservoirs, evaporation from the free water surface is considered water consumption. The thresholds for specific basins are summarized below and can be found in the attachments.

Table 1 - Applied Threshold of Significance summary by basin

Basin	Applied Threshold of Significance (AFY)
Santa Ynez Uplands	61
Buellton Uplands	22
San Antonio	23
Lompoc	12
Santa Maria	25
Cuyama	31
Montecito	4
Foothill	4
Goleta North / Central	2

Calculations:

The calculations below demonstrate that the proposed reservoir levels and associated evaporative losses do not exceed the subject basin's Threshold of Significance.

RESERVOIR #1:
Basin Name: Santa Ynez Uplands
Applied Threshold of Significance: 61 AFY
Full Water Depth: 18 feet
Design Water Surface Area Full: 3.52 Acres
⅓ Water Depth: 6 feet
Design Water Surface Area ⅓ Depth: 2.50 Acres

RESERVOIR #2:
Basin Name: Santa Ynez Uplands
Applied Threshold of Significance: 61 AFY
Full Water Depth: 23.5 feet
Design Water Surface Area Full: 2.64 Acres
⅓ Water Depth: 7.84 feet
Design Water Surface Area ⅓ Depth: 1.46 Acres

Month, Pond Level and Surface area RESERVOIR #1:

Month	Pond Level (depth)	Depth of Water (ft)	Storage Volume (AF)	Water Surface Area (acres)
January	1/3 Depth	6	15.62	2.50
February	Full	18	48.03	3.52
March	Full	18	48.03	3.52
April	Full	18	48.03	3.52
May	1/3 Depth	6	15.62	2.50
June	1/3 Depth	6	15.62	2.50
July	1/3 Depth	6	15.62	2.50
August	1/3 Depth	6	15.62	2.50
September	1/3 Depth	6	15.62	2.50
October	1/3 Depth	6	15.62	2.50
November	1/3 Depth	6	15.62	2.50
December	1/3 Depth	6	15.62	2.50

Month, Pond Level and Surface area RESERVOIR #2:

Month	Pond Level (depth)	Depth of Water (ft)	Storage Volume (AF)	Water Surface Area (acres)
January	1/3 Depth	7.84	9.59	1.46
February	Full	23.5	40.65	2.64
March	Full	23.5	40.65	2.64
April	Full	23.5	40.65	2.64
May	1/3 Depth	7.84	9.59	1.46
June	1/3 Depth	7.84	9.59	1.46
July	1/3 Depth	7.84	9.59	1.46
August	1/3 Depth	7.84	9.59	1.46
September	1/3 Depth	7.84	9.59	1.46
October	1/3 Depth	7.84	9.59	1.46
November	1/3 Depth	7.84	9.59	1.46
December	1/3 Depth	7.84	9.59	1.46

Evaporative Calculations using Pan Coefficient Method:

A common method to calculate the evaporation of a “shallow” body of water such as a reservoir or small lake is to utilize the pan coefficients from surrounding areas. The average monthly pan evaporation data is taken from the nearest station as published on the Western Regional Climate Center (link: https://wrcc.dri.edu/Climate/comp_table_show.php?stype=pan_evap_avg).

The Average Monthly reservoir evaporation equation is shown below:

Average Monthly Reservoir Net Evaporation (acre feet) = $P_c * P_e * (L_e-R_e)/12 * S_a$

Where,

P_e = The average monthly pan evaporation data is taken from the nearest station as published on the Western Regional Climate Center (inches),

P_c = The pan coefficient is taken from NOAA’s Technical Report NWS 33 which presents the distribution of evaporative loss observed through Class A Pans in the USA. Map 4, provides a isopleth map of pan coefficients shown in percentage (inches).

P_r = The average monthly precipitation data is also taken from the Western Regional Climate Center and is used to estimate the amount of precipitation that may offset the evaporative consumption from a body of water (inches).

L_e = Calculated lake evaporation = Pc * Pe (inches)

R_e = Historical monthly precipitation (inches)

S_a = Free surface area of the water body (acres)

note: IF P_r is greater than R_e then the total monthly evaporation = 0

A summary of the total calculated evaporative consumption of the subject reservoir is shown below:

RESERVOIR #1:

Month	AVG. MONTHLY PAN EVAPORATION (in)	PAN COEFFICIENT	AVG. MONTHLY LAKE EVAPORATION (in)	AVG. HISTORICAL MONTHLY PRECIPITATION (in)	POND MONTHLY NET EVAPORATION LOSSES (AF)
January	2.44	0.78	1.90	4.39	0.00
February	3.53	0.78	2.75	4.65	0.00
March	4.41	0.78	3.44	3.47	0.00
April	6.01	0.78	4.69	1.54	0.92
May	7.55	0.78	5.89	0.38	1.15
June	8.56	0.78	6.68	0.04	1.38
July	9.50	0.78	7.41	0.01	1.54
August	8.98	0.78	7.00	0.03	1.45
September	7.00	0.78	5.46	0.21	1.09
October	5.42	0.78	4.23	0.66	0.74
November	3.49	0.78	2.72	1.93	0.17
December	2.79	0.78	2.18	3.09	0.00
				Total Evaporation:	**8.45**

RESERVOIR #2:

Month	AVG. MONTHLY PAN EVAPORATION (in)	PAN COEFFICIENT	AVG. MONTHLY LAKE EVAPORATION (in)	AVG. HISTORICAL MONTHLY PRECIPITATION (in)	POND MONTHLY NET EVAPORATION LOSSES (AF)
January	2.44	0.78	1.90	4.39	0.00
February	3.53	0.78	2.75	4.65	0.00
March	4.41	0.78	3.44	3.47	0.00
April	6.01	0.78	4.69	1.54	0.69
May	7.55	0.78	5.89	0.38	0.67
June	8.56	0.78	6.68	0.04	0.81
July	9.50	0.78	7.41	0.01	0.90
August	8.98	0.78	7.00	0.03	0.85
September	7.00	0.78	5.46	0.21	0.64
October	5.42	0.78	4.23	0.66	0.43
November	3.49	0.78	2.72	1.93	0.10
December	2.79	0.78	2.18	3.09	0.00
				Total Evaporation:	**5.09**

Conclusions / Summary:

The total estimated evaporation from the subject project is estimated to be **13.54** acre feet (Reservoir #1: 8.45 acre feet *plus* Reservoir #2: 5.09 acre feet**)**. Based on our review of the County of Santa Barbara Planning and Development Environmental Thresholds and Guidelines Manual, the subject project is located in the **Santa Ynez Uplands** basin and has an applied Threshold of Significance of **61** acre feet. It is our opinion that the estimated evaporation from the subject reservoir is much less than the Threshold of Significance assigned to the subject groundwater basin and will most likely not have an adverse impact on groundwater.

We appreciate the opportunity to prepare this letter. Please contact the undersigned with any comments or questions.

Kind Regards,

Todd Robinson, P.E., MscEng, CFM
Licensed RCE: 75756
todd@coast-inc.com
(805) 440-3348

San Luis Obispo P.O. Box 13127, CA 93406
Buellton P.O. Box 869, CA 93427
Santa Barbara P.O. Box 1261, CA 93116

Attachments

TABLE 1 – SUMMARY OF GROUNDWATER BASIN CONDITIONS

Data from County Water Agency and Division of Environmental Review as of March 1992
By Brian R. Baca, 6/92 (file thresh4.wk3) Revised 8/92

			Gross Pumpage (AFY)			Net Pumpage (AFY)		
Basin	**Return Flow Factor (Gross-To-Net)**	**Available Storage**	**Current Use**	**Estimated Safe Yield**	**Surplus (Overdraft*)**	**Current Use**	**Estimated Safe Yield**	**Surplus Overdraft**
Carpinteria	.90	50,000	4238	4294	56	3814	3865	51
Montecito	.90	16,000	1823	1350	473*	1641	1215	426 *
Toro Canyon	.90	650	242	300	58	218	270	52
Foothill	.95	5000	1095	953	142*	1040	905	135*
City of Santa Barbara	.95	10,000	619	847	228	588	805	217
Goleta North/Central	.95	18,000	5167	3600	1567*	4908	3420	1488*
Goleta West	.95	10,000	See note below					
More Ranch	.90	600	24	84	60	22	76	54
Buellton Uplands	.74	153,800	2898	1766	1132*	2133	1300	833*
Santa Inez Uplands	.78	900,000	14,100	11,500	2600*	10,998	8970	2028*
Lompoc	.67	170,000	31,087	28,537	2550*	23,386	21,468	1918*
San Antonio	.75	800,000	19,441	8667	10,774*	15,431	6500	8931*
Santa Maria	.70	1,100,000	149,300	118,500	30,800*	103,800	83,800	20,000*
Cuyama	.75	1,500,000	48,700	10,667	38,033*	36,525	8000	28,525*
S. Y. River Riparian	N/A	90,000	Not subject to overdraft*					

Note on the Goleta North/Central Basin: The overdraft status of the Goleta North/Central Basin is based on pumpage by various private and public entities over the last decade. Overdraft of this basin is not projected to continue as a result of the court judgment in the Wright vs. Goleta Water District lawsuit and the efforts of the GWD to comply with the judgment. The judgment requires that the GWD return the basin to a state of hydrologic balance by 1998. GWD actions to meet this mandate include:

1. Adoption of the Water Supply Management Plan.
2. Adoption of ordinance 91-2 ("WET" Initiative: Desalination Supply).
3. Voter approval of revenue bonds for the State Water Project.
4. construction of the GWD/GSD waste water reclamation plant.
5. permanent water conservation programs.

On July 14, 1992 the Board of Supervisors determined that water service to Wright litigants and other holders of can-and-will-serve letters from the Goleta Water District does not have the potential to cause overdraft. Projects fitting in this description are therefore exempt from environmental review as it pertains to questions of groundwater overdraft.

Note on the Goleta West Basin: The status of the Goleta West Basin (or Subbasin) has not yet been resolved. This is because of uncertainty associated with several well exchange/service agreements between Planning and Development Department and Goleta Water District staff and landowners in the West Basin. The issue is the subject of ongoing discussions between the Planning and Development Department and Goleta Water District staff and is anticipated to be resolved by late 1992.

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TABLE 2 - GROUNDWATER THRESHOLDS 1992 UPDATE

Revised Methodology for Determining Threshold of Significance
By Brian R. Baca, 6/92 (File "thresh2b.wk3") Revised 8/20/92

METHODOLOGY

An idealized reference basin having overdraft and storage characteristics similar to the overdraft basin with the greatest remaining life (Santa Ynez uplands) was chosen as a standard. The Threshold of Significance for this reference basin was set at an amount (61.9 AFY) that if added to the assumed overdraft would result in the loss of three percent of the remaining life of the Available Storage. The Threshold values for the actual basins are proportional to the Threshold for the reference basin based on the relative length of remaining life and the relative size of the basin. Remaining life is weighted at 75 percent; size at 25 percent. Threshold values are rounded to the nearest 1 AFY for use in project environmental review.

STANDARD REFERENCE BASIN

Net Overdraft (AFY)	Available Storage (AF)	Remaining life of Av. Strg. (Years)	Threshold of Significance Based on 3.000% Loss of Remaining Life of Avail. Stor.	Formula for Calculation of Reference Basin Threshold of Significance (x) in AFY. (3% loss of remaining life)
2000.000 a	900000.000 b	450.000 c	61.856 AFY d	$\frac{900000\ AF}{2000\ AFY + (x)}$ = 450 years* .97

OVERDRAFTED/OVERCOMMITTTED BASINS

Basin	Net Overdraft (AFY)	Available Storage (AF)	Remaining Life of Av. Strg. (Years)	Ratio to Standard Reference Basin (1) Remaining Life (R.L./c)	Ratio to Standard Reference Basin (2) Available Storage (A.S./b)	Combined Ratio (1) @ 75% (2) @ 25%	Calculated Threshold of Significance (Combined Ratio x 61.856)	Applied Threshold of Significance (AFY)
Santa Ynez Uplands	2028.00	900000.000	443.787	0.986	1.000	0.990	61.215	61
Buellton Uplands	833.000	153,800.000	184.634	0.410	0.171	0.350	21.677	22
San Antonio	8931.000	800,000.000	89.576	0.199	0.889	0.372	22.980	23
Lompoc	1918.000	170,000.000	88.634	0.197	0.189	0.195	12.058	12
Santa Maria	20,000.000	1,100,000.000	55.000	0.122	1.222	0.397	24.570	25
Cuyama	28,525.000	1,500,000.000	52.585	0.117	1.667	0.504	31.194	31
Montecito	426.000	16,000.000	37.559	0.083	0.018	0.067	4.147	4
Foothill	135.000	5000.000	37.037	0.082	0.006	0.063	3.904	4
Goleta North/Central	1488.000	18,000.000	12.097	0.027	0.020	0.025	1.556	2

BASINS IN SURPLUS (No Threshold of Significance Applies)

Basin	Net Overdraft (AFY)	Available Storage (AF)
Carpinteria	0.000	50,000.000
City of Santa Barbara	0.000	10,000.000
Toro Canyon	0.000	650.000
More Ranch	0.000	1200.000

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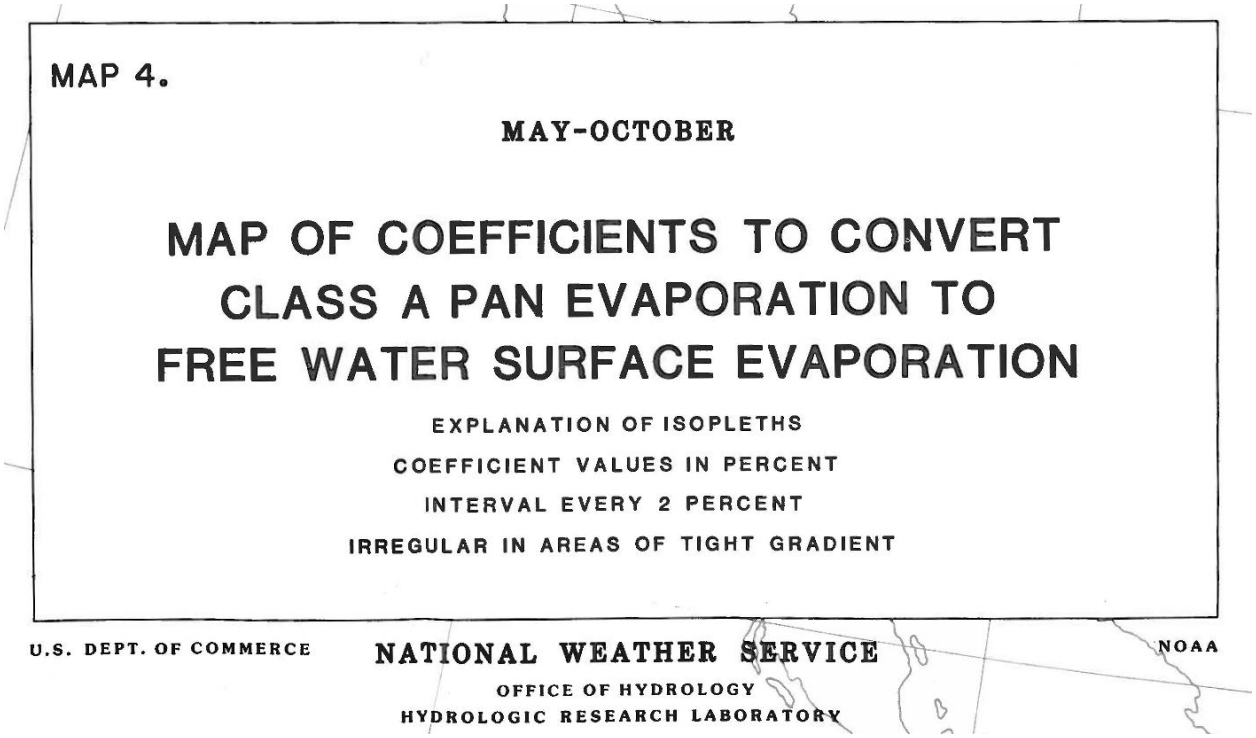
Monthly Average Pan Evaporation taken from Western Regional Climate Center (link: https://wrcc.dri.edu/Climate/comp_table_show.php?stype=pan_evap_avg).

CALIFORNIA

MONTHLY AVERAGE PAN EVAPORATION (INCHES)

	PERIOD OF RECORD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
ANTIOCH PUMP PLANT 3	1955-2005	1.17	1.99	4.25	6.27	8.96	10.84	11.60	10.06	7.77	4.91	2.07	1.22	71.11
AUBURN DAM PROJECT	1972-1984	1.42	1.89	3.13	4.89	7.73	10.08	11.66	10.70	8.08	5.00	1.97	1.36	67.91
AVENAL 9 SSE	1955-1961	1.80	2.90	6.20	9.39	12.96	16.73	18.67	16.37	12.61	8.05	3.89	2.44	112.01
BACKUS RANCH	1948-1963	2.85	3.86	6.77	9.80	12.69	15.93	16.92	15.95	12.19	8.01	4.25	2.98	112.20
BEAUMONT PUMPING PLANT	1948-1975	2.90	3.29	4.08	5.03	6.40	8.15	10.64	9.97	7.90	5.87	3.22	2.90	70.35
BEAUMONT 1 E	1948-2001	3.10	3.73	4.99	5.23	7.60	9.31	10.97	10.66	8.85	6.53	5.16	3.95	80.08
BERRYESSA LAKE	1957-1970	1.53	2.15	3.79	5.82	8.90	11.00	13.22	12.06	8.67	5.72	2.48	1.66	77.00
BOCA	1948-2005	0.00	0.00	0.00	0.00	6.83	8.52	10.01	9.09	6.48	4.32	0.00	0.00	45.25
BRANNAN ISLAND	1968-1977	1.15	1.74	4.36	7.03	10.49	12.39	13.51	12.02	9.03	4.80	1.83	1.08	79.43
CACHUMA LAKE	1952-2005	2.44	3.53	4.41	6.01	7.55	8.56	9.50	8.98	7.00	5.42	3.49	2.79	69.68
CAMP PARDEE	1948-2005	0.72	1.12	2.32	4.18	7.04	9.43	11.17	9.50	6.51	3.77	1.40	0.72	57.88
CHICO EXPERIMENT STN	1906-2005	1.26	2.13	3.82	5.63	8.28	10.11	11.48	9.71	7.36	4.46	2.09	1.30	67.63
CHULA VISTA	1948-2005	2.81	3.45	5.03	6.06	6.76	6.96	7.63	7.48	6.21	5.02	3.58	2.78	63.77
COW CREEK	1948-1961	3.21	5.62	9.78	13.98	17.25	21.37	21.89	20.17	15.36	10.71	4.91	3.85	148.10
DAVIS 1 WSW	1917-2005	1.49	2.34	4.54	7.13	10.19	12.17	12.77	11.28	9.08	6.35	2.89	1.45	81.68
DEATH VALLEY	1961-2005	3.93	5.38	9.10	13.00	16.76	19.11	20.98	18.86	13.95	9.78	5.54	3.75	140.14
DUTTONS LANDING	1955-1977	1.42	2.09	3.87	5.70	7.74	9.34	9.34	8.27	6.75	4.65	2.25	1.46	62.88

Map 4 from NOAA's Technical Report NWS 33



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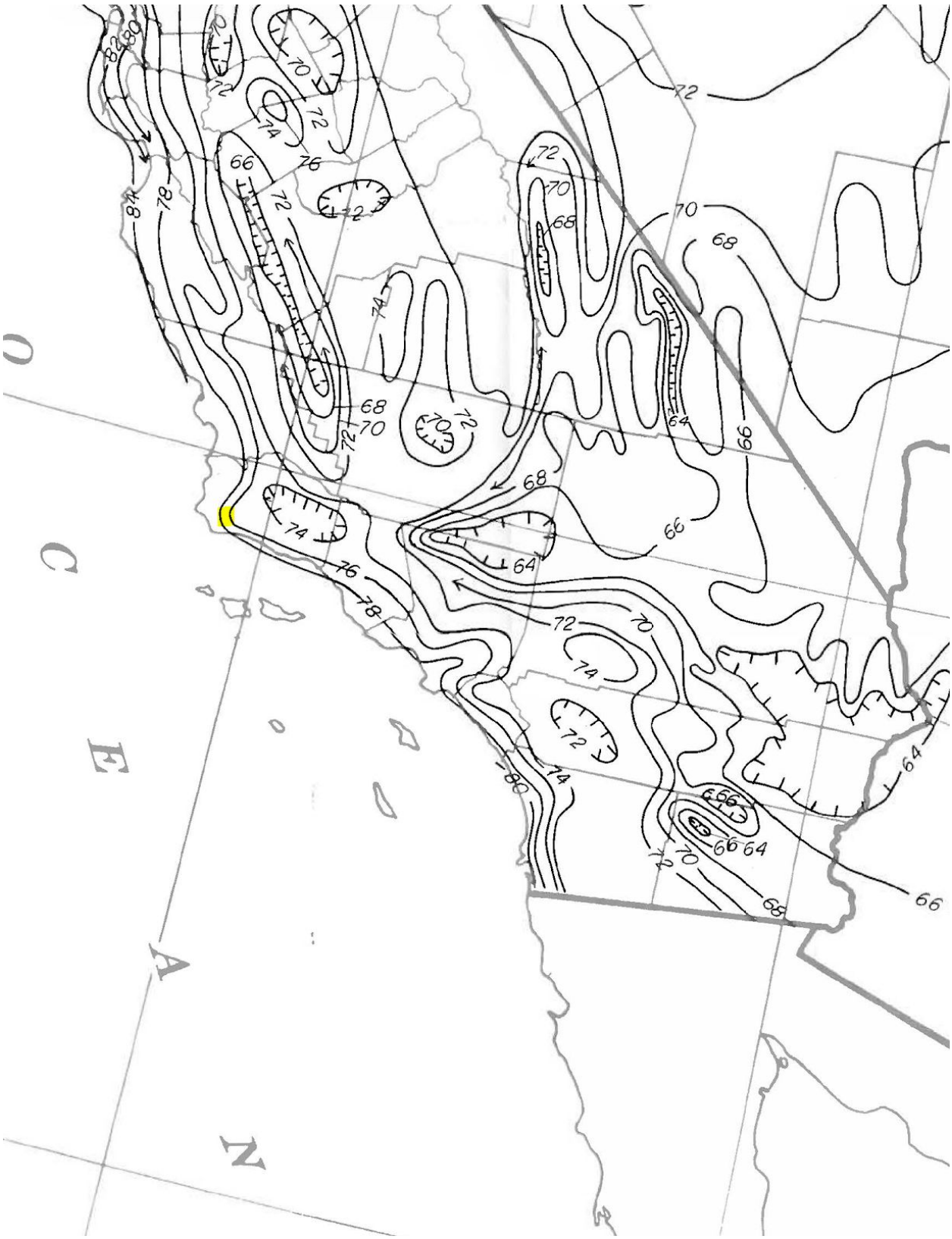


Attachment 6

POR. RANCHOS CANADA DE LOS PINOS & LOMAS DE LA PURIFICACION

141–44

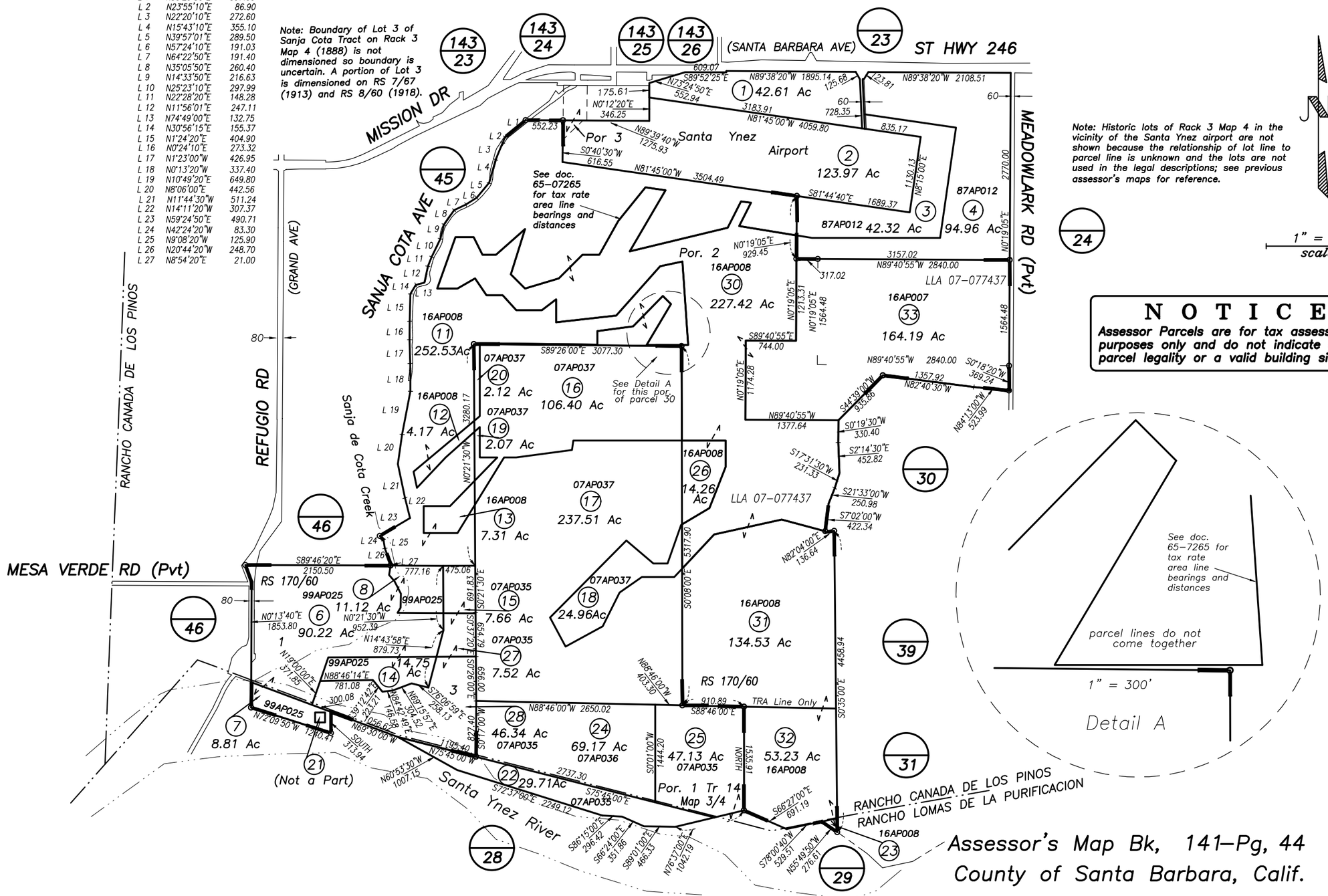
LINE TABLE		
NO.	BEARING	DISTANCE
L 1	N50°29'30"E	397.00
L 2	N23°55'10"E	86.90
L 3	N22°20'10"E	272.60
L 4	N15°43'10"E	355.10
L 5	N39°57'01"E	289.50
L 6	N57°24'10"E	191.03
L 7	N64°22'50"E	191.40
L 8	N35°05'50"E	260.40
L 9	N14°33'50"E	216.63
L 10	N25°23'10"E	297.99
L 11	N22°28'20"E	148.28
L 12	N11°56'01"E	247.11
L 13	N74°49'00"E	132.75
L 14	N30°56'15"E	155.37
L 15	N1°24'20"E	404.90
L 16	N0°24'10"E	273.32
L 17	N1°23'00"W	426.95
L 18	N0°13'20"W	337.40
L 19	N10°49'20"E	649.80
L 20	N8°06'00"E	442.56
L 21	N11°44'30"W	511.24
L 22	N14°11'20"W	307.37
L 23	N59°24'50"E	490.71
L 24	N42°24'20"W	83.30
L 25	N9°08'20"W	125.90
L 26	N20°44'20"W	248.70
L 27	N8°54'20"E	21.00

Note: Boundary of Lot 3 of Sanja Cota Tract on Rack 3 Map 4 (1888) is not dimensioned so boundary is uncertain. A portion of Lot 3 is dimensioned on RS 7/67 (1913) and RS 8/60 (1918).

Note: Historic lots of Rack 3 Map 4 in the vicinity of the Santa Ynez airport are not shown because the relationship of lot line to parcel line is unknown and the lots are not used in the legal descriptions; see previous assessor's maps for reference.

1" = 1500
scale

NOTICE
Assessor Parcels are for tax assessment purposes only and do not indicate either parcel legality or a valid building site.



Assessor's Map Bk, 141–Pg, 44
County of Santa Barbara, Calif.

08/08/1888 Rack 3, Map 4 "Subd. of Rancho Canada de los Pinos or College Ranch"

LD/18 — 11–13, 23, 26, 30–32, replace Agp# 5 & 29 into 33 & new Agp #

Monthly Climate Summary taken from Western Regional Climate Center (link: https://wrcc.dri.edu/summary/Climsmsca.html).

CACHUMA LAKE, CALIFORNIA (041253)

Period of Record Monthly Climate Summary

Period of Record : 03/01/1952 to 06/10/2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	65.5	66.7	68.8	73.0	77.5	83.8	90.5	91.1	88.2	82.2	73.2	66.3	77.2
Average Min. Temperature (F)	38.6	40.1	41.7	43.4	46.7	49.2	52.1	52.2	51.3	48.0	42.7	38.5	45.4
Average Total Precipitation (in.)	4.39	4.65	3.47	1.54	0.38	0.04	0.01	0.03	0.21	0.66	1.93	3.09	20.39
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 99.1% Min. Temp.: 98.7% Precipitation: 98.8% Snowfall: 98.3% Snow Depth: 98.1%
Check Station Metadata or Metadata graphics for more detail about data completeness.