



COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING
Initial Study – Environmental Checklist

PLN-2039
04/2019

Project Title & No. **Pierson Lot Line Adjustment, Variance and Minor Use Permit,
ED17-112 (S000161L, DRC2017-00083 & D000230P)**

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The proposed project could have a "Potentially Significant Impact" for environmental factors checked below. Please refer to the attached pages for discussion on mitigation measures or project revisions to either reduce these impacts to less than significant levels or require further study.

<input checked="" type="checkbox"/> Aesthetics	<input type="checkbox"/> Greenhouse Gas Emissions	<input checked="" type="checkbox"/> Public Services
<input type="checkbox"/> Agriculture & Forestry Resources	<input type="checkbox"/> Hazards & Hazardous Materials	<input type="checkbox"/> Recreation
<input checked="" type="checkbox"/> Air Quality	<input type="checkbox"/> Hydrology & Water Quality	<input checked="" type="checkbox"/> Transportation
<input checked="" type="checkbox"/> Biological Resources	<input type="checkbox"/> Land Use & Planning	<input type="checkbox"/> Tribal Cultural Resources
<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Utilities & Service Systems
<input type="checkbox"/> Energy	<input type="checkbox"/> Noise	<input type="checkbox"/> Wildfire
<input checked="" type="checkbox"/> Geology & Soils	<input type="checkbox"/> Population & Housing	<input checked="" type="checkbox"/> Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation, the Environmental Coordinator finds that:

- ☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Dave Moran/Schani Siong	Signature	1/5/2021
Prepared by (Print)		Date
Steve McMasters	For	Steve McMasters, Principal Environmental Specialist
Reviewed by (Print)	Signature	1/5/2021
		Date

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Project Environmental Analysis

The County's environmental review process incorporates all of the requirements for completing the Initial Study as required by the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The Initial Study includes staff's on-site inspection of the project site and surroundings and a detailed review of the information in the file for the project. In addition, available background information is reviewed for each project. Relevant information regarding soil types and characteristics, geologic information, significant vegetation and/or wildlife resources, water availability, wastewater disposal services, existing land uses and surrounding land use categories and other information relevant to the environmental review process are evaluated for each project. Exhibit A includes the references used, as well as the agencies or groups that were contacted as a part of the Initial Study. The County Planning Department uses the checklist to summarize the results of the research accomplished during the initial environmental review of the project.

Persons, agencies or organizations interested in obtaining more information regarding the environmental review process for a project should contact the County of San Luis Obispo Planning Department, 976 Osos Street, Rm. 200, San Luis Obispo, CA, 93408-2040 or call (805) 781-5600.

A. Project

DESCRIPTION: Request by **the Pierson Family** for the following:

- A Lot Line Adjustment (S000161L, COAL 01-0001) to adjust the lot lines between two parcels of 112.41 and 9.23 acres, resulting in two parcels of 101.63 and 20.01 acres, including identification of a designated building envelope (1.5 acre) on each resulting parcel;
- A Minor Use Permit/Coastal Development Permit (D000230P) to allow construction of two single family residences of 3,578 and 5,685 square feet including associated site improvements on each lot;
- A Variance (DRC2017-00083) to allow grading on slopes over 30% for the driveway access to one building site.

The project will result in total site disturbance of about 3.18 acres, including 8,500 cubic yards (cy) of cut and 4,800 cy of fill on a 121.41 acre site located on the southwest side of Cabrillo Highway (SR 1), approximately 600 feet northwest of Villa Creek Road, four miles northwest of the community of Cayucos. The project site is within the Agriculture land use category and in the Estero Planning Area.

PROJECT SETTING

The site is located in the Coastal Zone approximately 4 miles northwest of the town of Cayucos, just northwest of the Estero Bluffs State Park and approximately ½ mile southeast of Harmony Headlands State Park (Figure 1). The site extends from State Highway 1 on the north to the Pacific Ocean on the south and is immediately west of the property containing the Abalone Farm, Inc., a commercial business that grows and distributes California red abalone. The site consists of two legal parcels created by Certificates of Compliances recorded in 1978 (Figure 2). Both existing parcels are vacant and have been used for livestock grazing.

Existing Parcel 1 (EP1) is 9.23 acres and is located along State Highway 1. The parcel is undeveloped and has access from Highway 1 through a recorded easement from the Abalone Farm property and through Existing Parcel 2 (EP2). The site is designated Agriculture and contains a Flood Hazard designation and a coastal stream. EP1 is smaller than the minimum parcel size required in the Agriculture land use category;

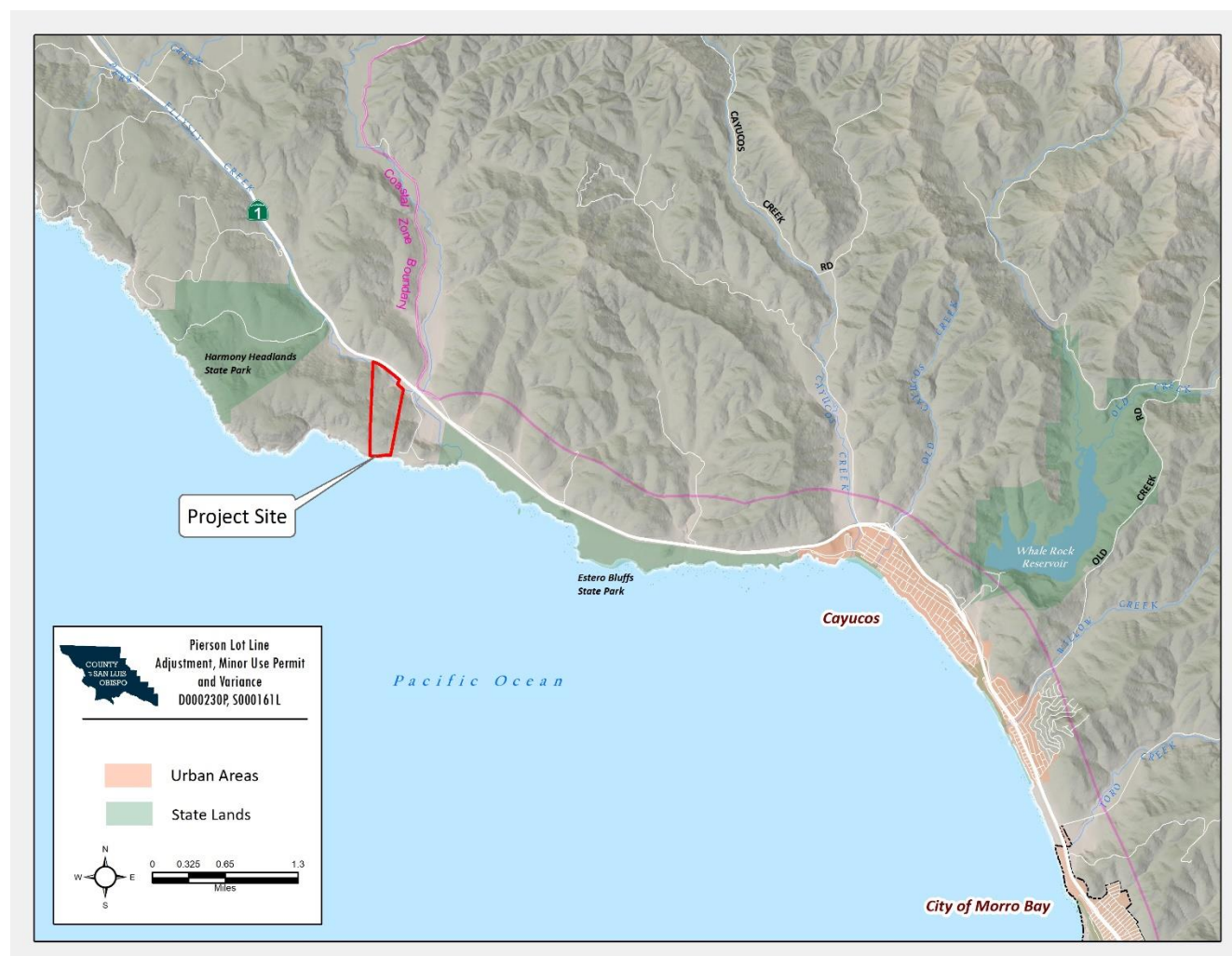
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however, the parcel was legally created and has been issued a Certificate of Compliance. Accordingly, a single family residence could be constructed on EP1 subject to compliance with County standards for septic system, water supply, access and slopes.

Existing Parcel 2 (EP2) is 112.41 acres in size and rises in elevation from north to south to a ridge at the approximate midway point of the parcel. From the ridge, the site slopes steeply downward to the south and the coastal bluff. An unpaved road crosses the site from the neighboring parcel to the east (the site of the Abalone Farm).

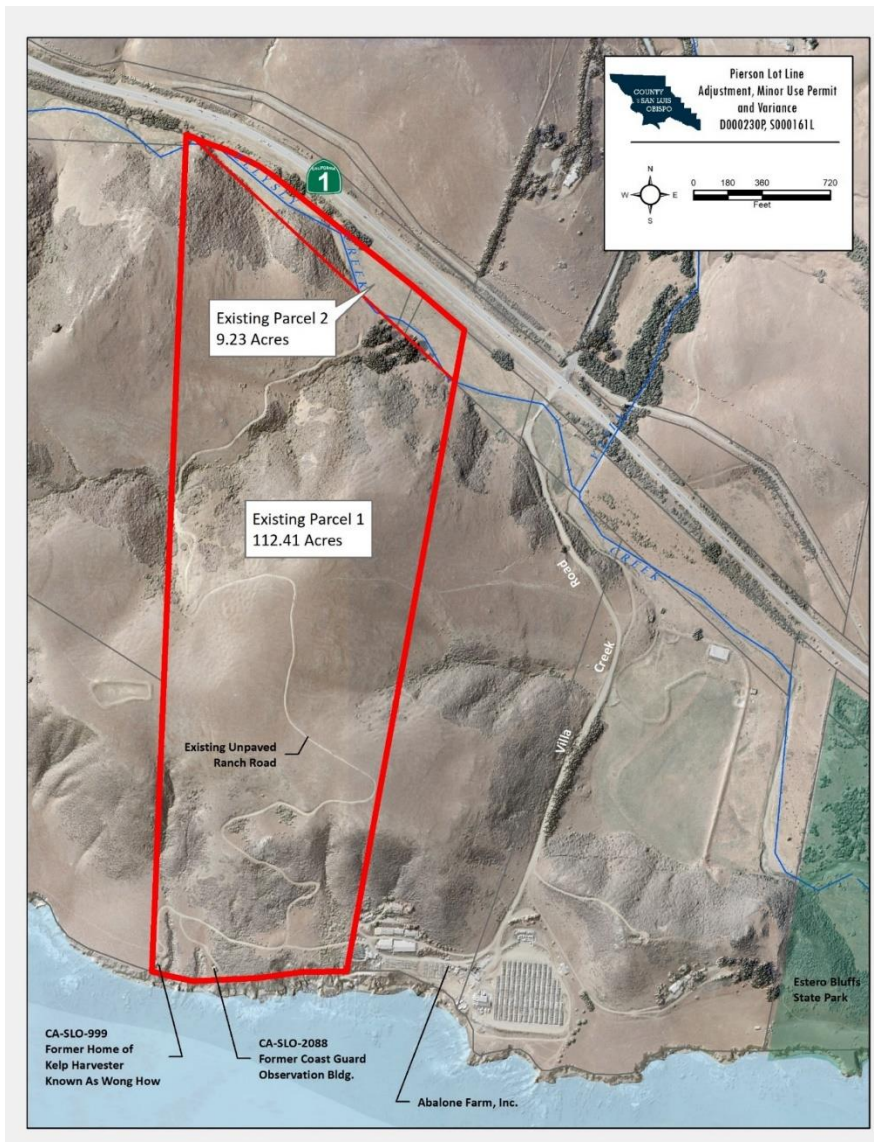
EP2 contains two historical structures (Figures 2 and 4). CA-SLO-999 denotes the former residence of Wong How, purported to be the last of the seaweed gatherers who lived in the area during the first half of the 20th century. CA-SLO-2088 is the site of the former Coast Guard Station that was first in use in 1949. *See the Cultural Resource section for additional information.*

Figure 1 – Project Location



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Figure 2 – Project Site Existing Parcel Configuration



Lot Line Adjustment

The applicant proposes to re-configure the parcel boundaries as shown on Figure 3 and as summarized in the following table.

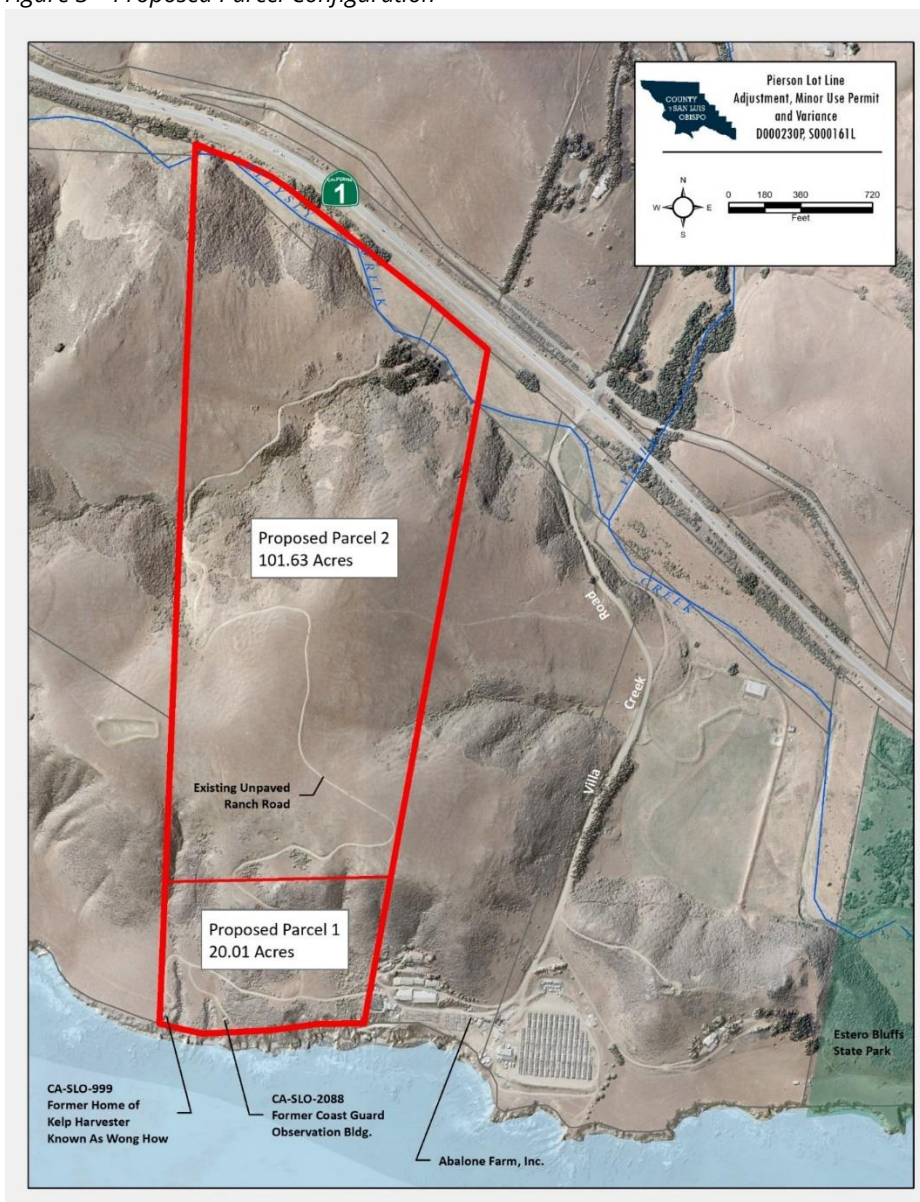
Table 2 – Lot Line Adjustment Summary		
	Existing	Proposed
Parcel 1	112.41 acres	20.01 acres
Parcel 2	9.23 acres	101.63 acres

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Proposed Parcel 1 (PP1) will be 20.01 acres and located at the southerly end of the rectangular site adjacent to the Pacific Ocean. The entire site will be accessed from an existing unimproved road that enters the site from the adjacent Abalone Farm property and connects with Villa Creek Road and HWY 1. The access road splits into 2 driveways; the westerly reach will provide access to PP1 and the northerly reach (to be improved under this MUP/CDP) will provide access to Proposed Parcel 2 (PP2). A 1.5 acre building site is located on PP1 at the southwest corner (Figure 4).

Proposed Parcel 2 (PP2) is 101.63 acres and will extend from State Highway 1 on the north, up to the top of the ridge and then south and downhill to the northerly boundary of PP1, about 830 feet north of the bluff top. A 1.5 acre building site is proposed just below the top of the ridge (Figure 4).

Figure 3 – Proposed Parcel Configuration

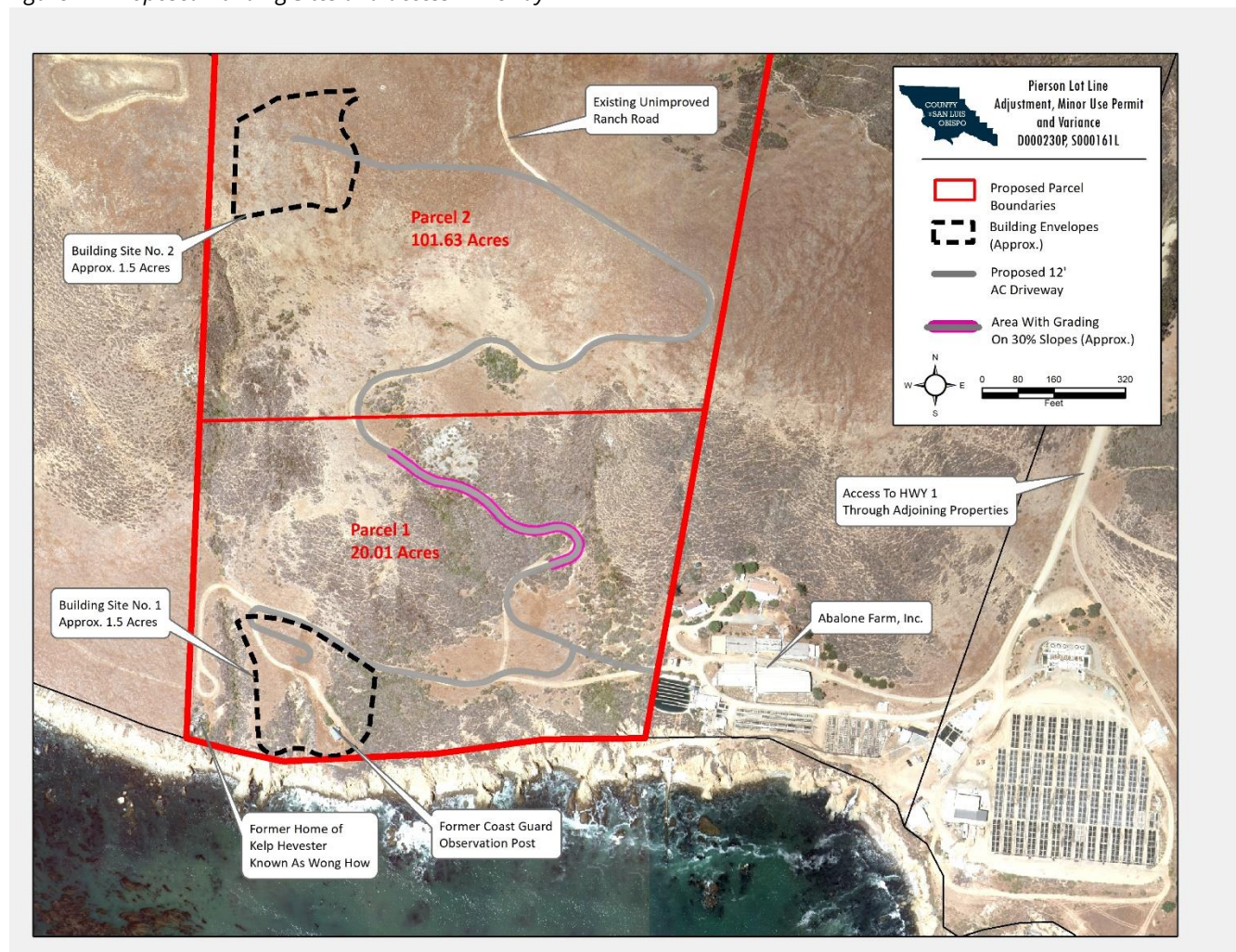


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Minor Use Permit and Variance

A Minor Use Permit (MUP) is required for the construction of the residential houses and also, to allow grading on slopes between 20% and 30% for a portion of the PP2 driveway. A Variance is also required to allow grading on portions of PP1 driveway that exceed 30% in slopes (Figure 4).

Figure 4 – Proposed Building Sites and access Driveway

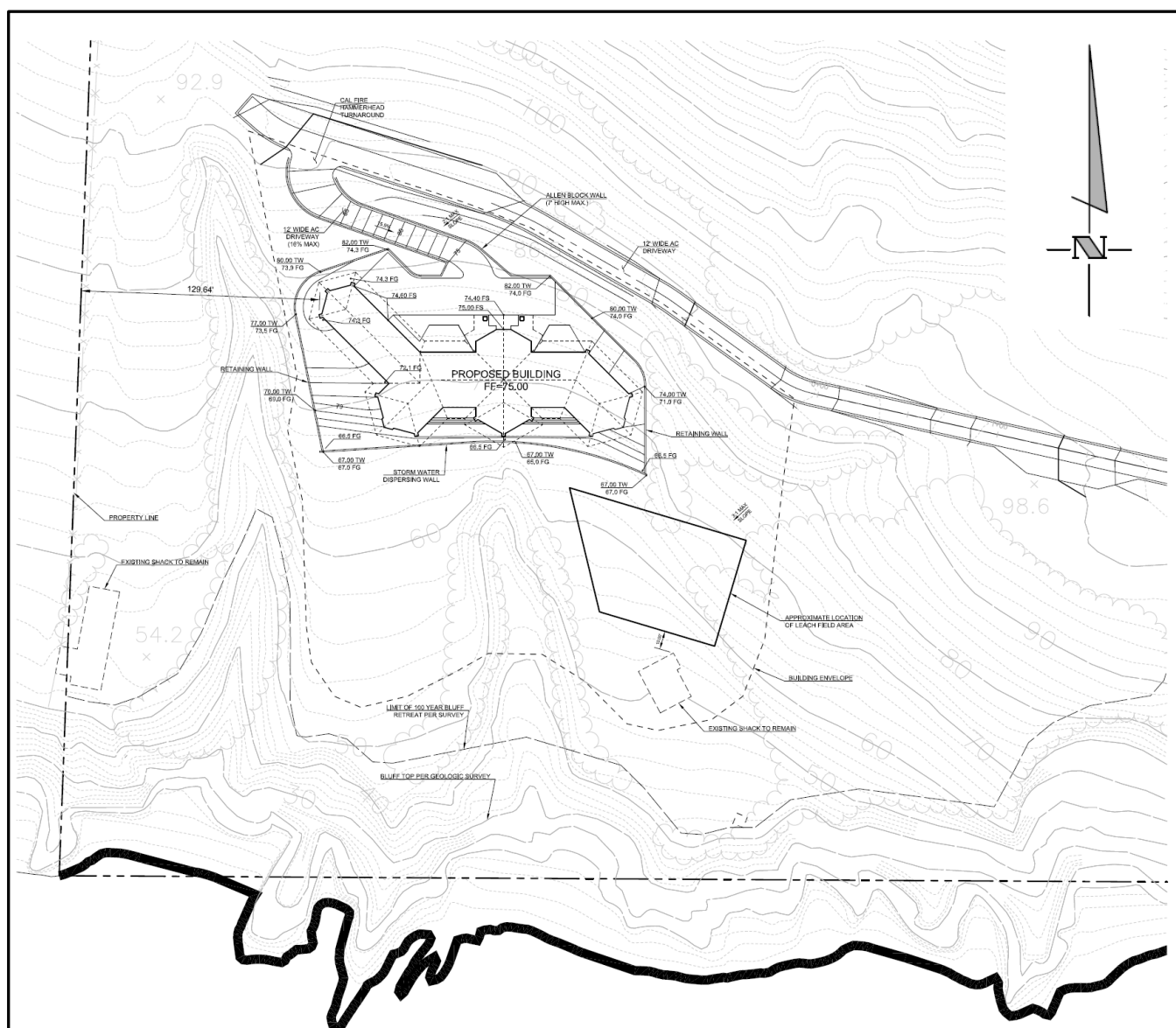


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Proposed Single Family Dwellings

The applicant proposes to construct a single family residence in each of the 1.5 acre building sites shown for PP1 and 2. The dwelling proposed for PP1 is 3,578 sq. ft. and single story. The dwelling, outdoor areas, and parking will be located within a 1.5 acre building site, while the septic system leach field will be located easterly within the building envelope. The dwelling will contain three bedrooms and 3 baths, a two car garage, a great room, other rooms for various uses and an outdoor terrace (Figure 5).

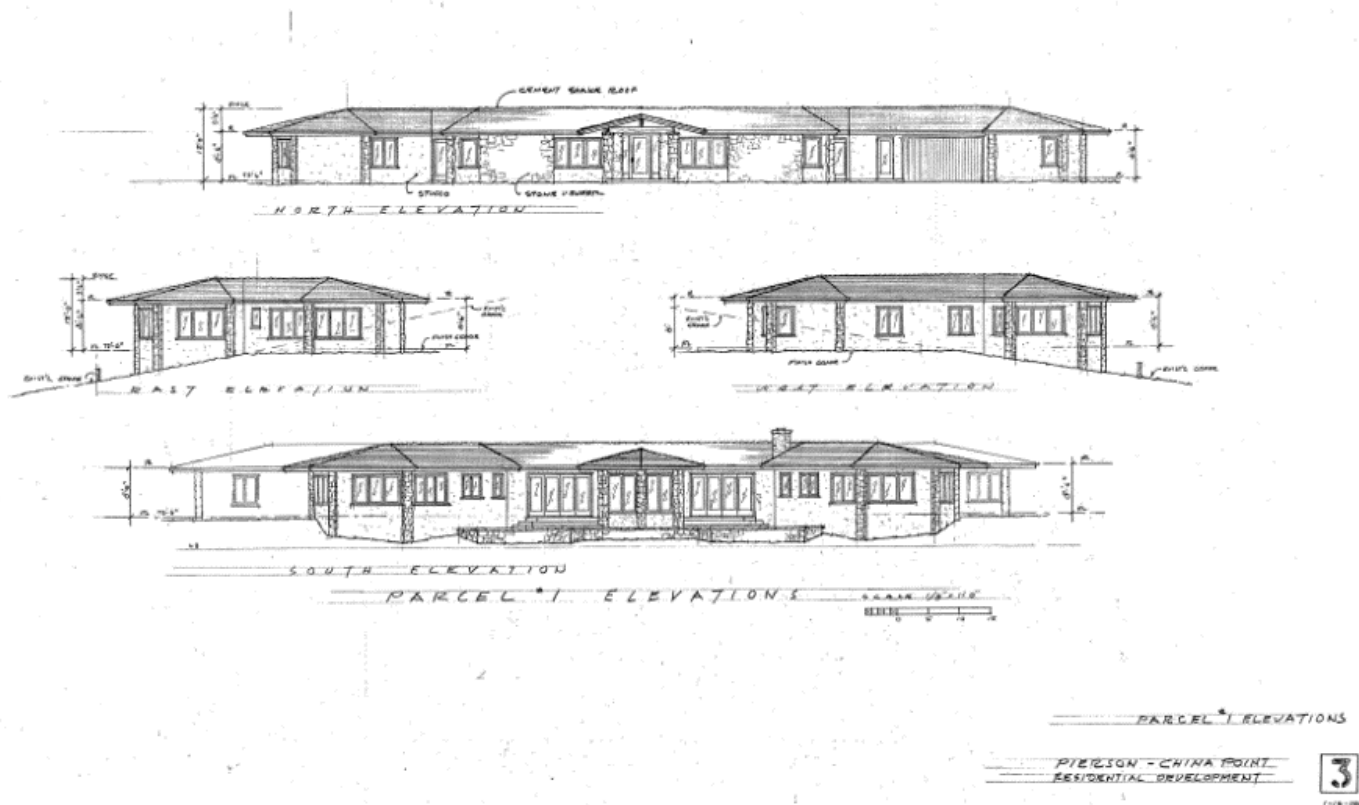
Figure 5 – Site Plan for New Dwelling on Proposed Parcel 1 (PP1)



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The dwelling is located outside the required 75 foot bluff setback approximately 100 feet from the existing bluff edge. The driveway slopes downward from an elevation of approximately 88 feet to the finished grade of the auto court at 73 feet. The dwelling's finished floor is at 73.5 feet and the outdoor terrace area on the south side of the dwelling is at 71.5 feet. The dwelling is approximately 12 feet high when measured from average natural grade (see Figure 6).

Figure 6 – Elevations for New Dwelling on Proposed Parcel 1 (PP1)



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The dwelling proposed on PP2 is located just below the top of the ridge between Highway 1 on the north and the bluff on the south (Figure 7). The dwelling and garage total 5,685 sq. ft. within an approximately 1.5 acre building envelope. The envelope includes a water storage tank, septic system and a fire emergency vehicle turnaround. The dwelling includes 4 bedrooms and 4 baths, a swimming pool, great room and a three car garage with a porte cochere.

Figure 7 – Site Plan for New Dwelling on Proposed Parcel 2 (PP2)



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The dwelling is less than 15 feet in height measured from average natural grade (Figure 8). The exterior colors and materials are natural wood and stone and are earth toned in color.

Figure 8 – Elevations for the New Dwelling on Proposed Parcel 2 (PP2)



Table 1 – Project Summary

Features	Proposed Parcel 1	Proposed Parcel 2
Parcel Size	20.01 acres	101.63 acres
Building envelope	1.5 acres	1.5 acres
Residence (including garage)	3,578 sq. ft.	5,685 sq. ft.
Patio	2,900 sq. ft.	2,055 sq. ft.
Pool/spa area	--	2,367 sq. ft.
Building height	Single story	Single story
Septic leach field area	4,480 sq. ft.	4,320 sq. ft.
Water supply	Existing well	
Cut (including dwellings and driveway construction)	8,500 cubic yards	
Fill	4,800 cubic yards	
Net	3,700 cy export	
Total area of disturbance	3.18 acres	

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Access. Existing access is provided by an unimproved roadway easement that extends to the west through the adjoining Abalone Farm property to Villa Creek Road and HWY 1. To improve access to the residential sites as well as to meet California CAL FIRE access requirements, the project proposes to widen and pave the existing dirt road (Figure 4). The improved road would mostly follow the alignment of the existing road, with the exception of the lowest approximately 700 feet, where it would be realigned in order to meet maximum grade standards. Four retaining walls are proposed in lieu of large excavation slopes to minimize the visibility of the roadway when viewed from offsite. The proposed walls would be a maximum height of 6 feet.

Building Materials: The dwelling on PP1 will be constructed with earth tone stucco siding and stone veneer finish with a cement shake roof. The dwelling on PP2 will have earth tone wood siding and stucco finish with a cement shake roof. Non-reflective materials are proposed on the surfaces to prevent glare or light reflection from the public viewing areas.

Lighting: Exterior lighting around the residences will be kept to a minimum to provide safety for pedestrian and vehicular purposes. The lighting will be directed downward and designed to not produce any glare off-site.

Fencing: Fencing will be limited to the perimeter of the building envelopes and areas necessary to protect sensitive wetlands, and other sensitive resources from cattle grazing operations, if these operations are found to be feasible. Fencing will be open, rural in character with general earth tone colors.

Ornamental Landscaping: There will be no ornamental landscaped areas outside the development envelopes. The areas surrounding the building envelopes will be contoured to mimic the natural topography and revegetated with native plant materials appropriate to the area.

Water Storage Tanks: One low profile water tank, shown on the site plan along the driveway to PP2 will be constructed to store additional water for fire protection. The tank will be colored to mimic the site's natural backdrop and not be visible from public viewing areas. The use of darker earth-tone colors and materials, and reduction of reflective exterior surfaces is proposed for the tank.

A second water tank is located on PP2 northeast of the residence and will be constructed underground to avoid visual impacts from key public viewing areas.

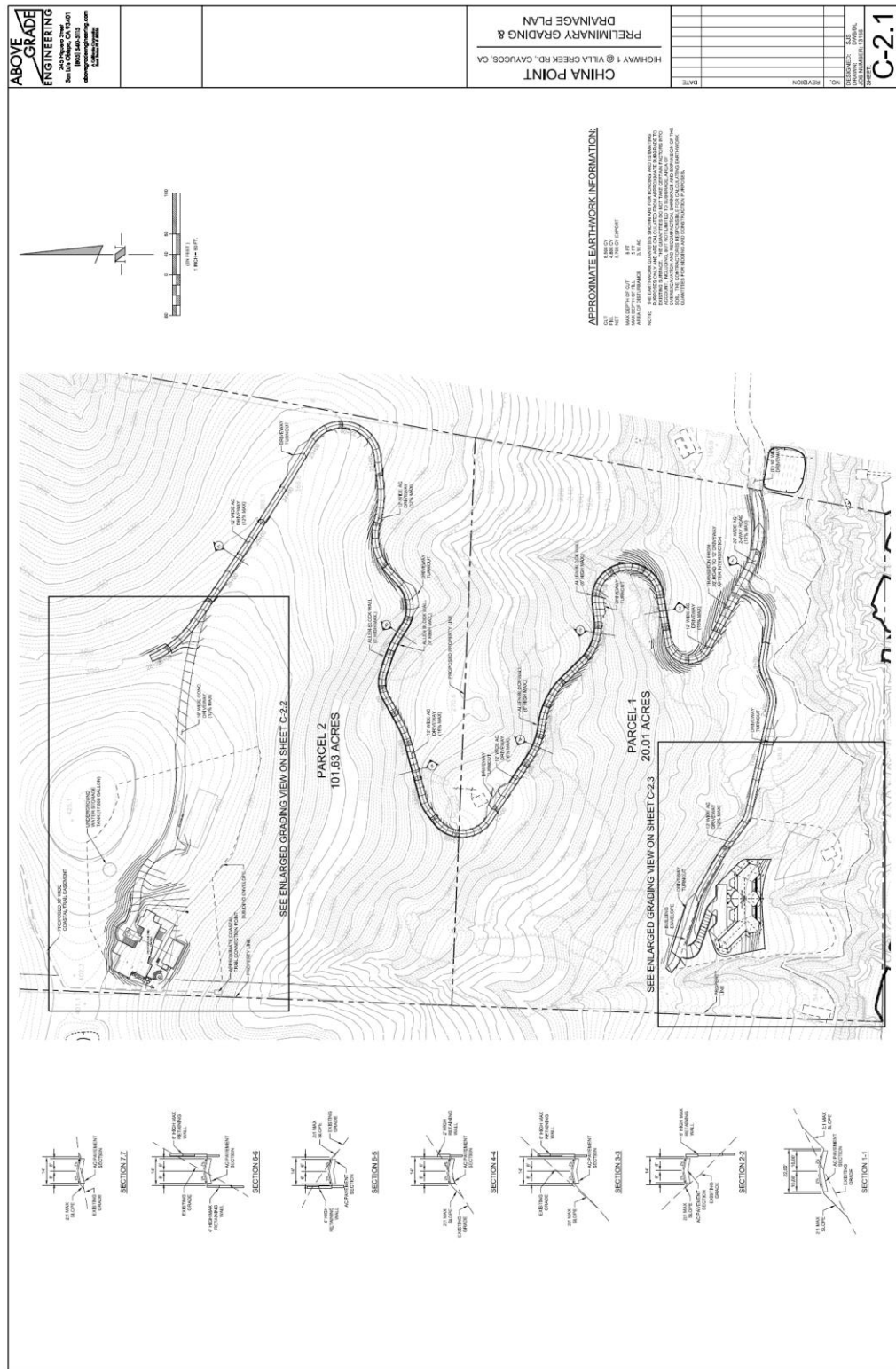
Wastewater: The project proposes an engineered wastewater discharge system for the dwelling on PP1 site and a conventional septic and leech field system on the PP2 home site.

With the engineered wastewater system, household sewage will flow into a processing tank where it will be separated into scum, sludge, and liquid effluent. The effluent will then be filtered and the impurities removed. After a recirculating treatment, the effluent will be discharged to the soil via irrigation or a drainfield. The drainfield is an array of perforated pipes placed in sand, gravel or plastic chambers. The effluent flows trickle into the sand and therefore significantly reduce the amount of water that is leached into the ground.

Grading: Site grading totals approximately 8,500 cubic yards of cut and 4,800 cubic yards of fill. Maximum depth of cut slopes will be 8 feet and fill slopes will be 5 feet (Figure 9). The majority of the cut and fill slopes are for the driveway access to PP2. The 12 foot wide driveway will minimize grading through the use of retaining walls along the proposed driveway. Three areas of the driveway will use retaining walls to minimize cut and fill slopes and three driveway turn outs will be used to allow emergency access/egress.

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Figure 9 – Grading Plan

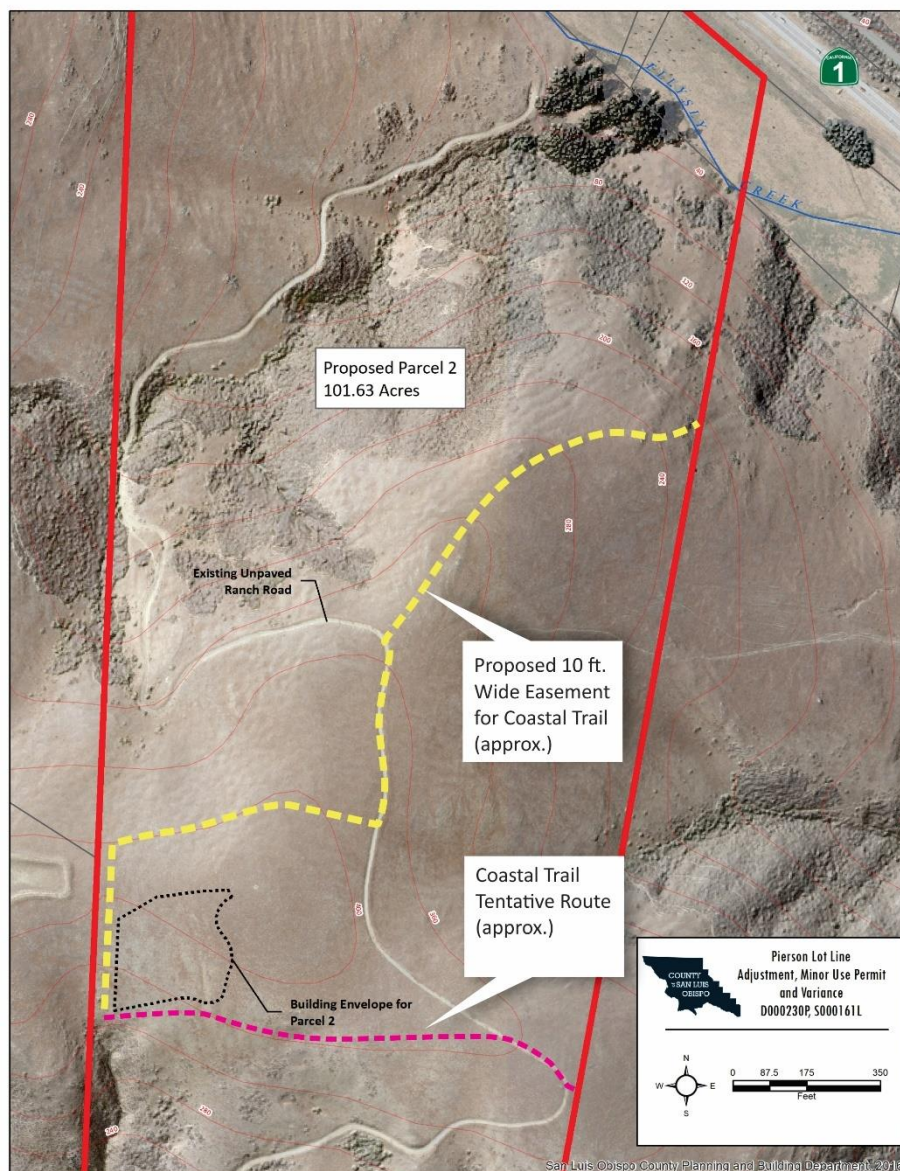


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Coastal Trail: A portion of the California Coastal Trail will cross the site at a location that is yet to be determined. The trail will likely enter the project site from the adjacent property to the west near the top of the ridge at the southern boundary of the building envelope on PP2. A tentative route has been identified by Coastal Commission staff in coordination with County Parks which shows the trail continuing to the east along the south side of the PP2 building envelope (Figure 10 – pink line).

Project plans show a proposed 10 foot wide easement for the Coastal Trail that travels a different alignment that wraps around the north side of the PP2 building envelope, then travels east connecting to the unpaved access road, then northeast downslope to the eastern property line where it would continue on the adjoining property. The final alignment will be determined in consultation with the California Coastal Commission.

Figure 10 -- Proposed Coastal Trail Easement (approx.)



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ASSESSOR PARCEL NUMBER(S): 046-151-008, 046-091-008, 046-091-037

Latitude: 35°28'12.108" N **Longitude:** 120°58'50.1954" W **SUPERVISORIAL DISTRICT #** 2

B. Existing Setting

Plan Area: Estero **Sub:** None **Comm:**
Land Use Category: Agriculture
Combining Designation: Coastal Appealable Zone Sensitive Resource Area Flood Hazard
Parcel Size: 121.4 acres
Topography: Gently sloping to steeply sloping
Vegetation: Grasses Shrubs
Existing Uses: Undeveloped

Surrounding Land Use Categories and Uses:

North: Agriculture; agricultural uses **East:** Agriculture; agricultural uses
South: Not applicable; **West:** Agriculture; agricultural uses

C. Environmental Analysis

The Initial Study Checklist provides detailed information about the environmental impacts of the proposed project and mitigation measures to lessen the impacts.

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I. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Except as provided in Public Resources Code Section 21099, would the project:</i>				
(a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

The project site is in a region that is part of the western foothills of the coastal mountain range and marine terrace. The landform of the region is characterized by slopes and ravines forming a series of ridgelines and valleys as the hills rise from the Pacific Ocean. Throughout the region, vegetation is an important component of visual character. Much of the vegetation in the region is grazed grassland with coyote brush, and scattered, oak, pine, and cypress dotting the hillsides. Sycamore and willows are found in the drainages. Large stands of eucalyptus trees are primarily associated with older farmhouses and ranch development seen throughout the area.

Highway 1, the primary north/south route in the region traverses a route generally parallel to the coastline although topography and alignment affect proximity to, and views to, the ocean. According to counts taken by Caltrans in 2016, Highway 1 at Old Creek Road in Cayucos carried an afternoon peak hour volume of 1,600 vehicle trips, or about 27 vehicles per minute. Throughout the project vicinity, the most visible developments are occasional roadside ranch and home sites and the small town of Harmony, located approximately 3.5 miles northwest of the project site. Throughout much of region, the scale and frequency of structures and other built amenities are such that, although visible, they do not dominate the views when seen in the context of the overall landscape. Where visible, the rustic appearance of roadside development visible from Highway 1 supports the rural and agricultural character of the area.

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Project Site

The building site for Proposed Parcel 1 (PP1) is located at the foot of the south-facing slope about 100 feet north of the bluff in the southwest corner of the parcel. The coastal terrace in this area is covered by native and non-native grasses and slopes less than 7%.

The building site for Proposed Parcel 2 (PP2) is located at an elevation of approximately 390 feet on a northwest/southeast-oriented ridge that visually separates Highway 1 from the Pacific Ocean. Approximately 0.4 mile southeast of the project site, the ridge drops away to Villa Creek and the Estero Bluffs coastal terrace, opening up views to the ocean and coastline. A commercial abalone farm and a private residence are located within 0.5 mile of the project site and can be seen at the southwestern base of the ridge, near the coastal bluffs.

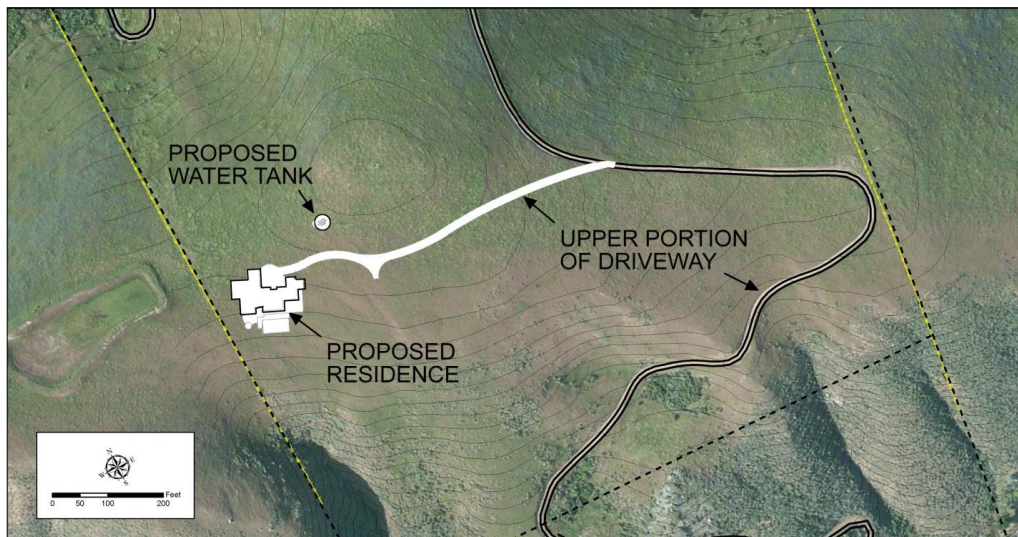
The proposed residence on PP2 will be situated in a small topographic depression on the southwestern flank just below the ridgeline (Figures 4 and 11). The project site slopes down sharply from the northeast to the southwest toward the ocean. The proposed water tank would be located 135 feet northeast of the residence on PP2, closer to the ridgeline, at an elevation of approximately 415 feet. Existing access to the project site is by a dirt road, which curves up the hillside from the abalone farm to the southeast. There is no development at the upper portions of the ridge and project vicinity other than wooden utility poles crossing the site and post-and-wire fencing at the parcel boundary. An existing stock pond is seen on the adjacent parcel, approximately 200 feet from the project site. Vegetation on the upper slopes of the ridge and the project site are mostly grasses, and no trees are seen on the hilltop. Patterns of coastal scrub masses are found along the mid and lower slopes. At the base of the ridge, mature trees including native and non-native varieties are seen in the drainages and surrounding the private residence to the southeast.

Because the project site is located on the southwest face of the hill, the adjacent ridgeline landform tends to block views of the site from the north and east. From viewpoints oriented more to the south and west, the southeastern face of the ridge and project site is more exposed to view. The topographic depression on which the proposed residence for PP2 is located allows the natural landform to the south and east to help block visibility of the project.

The hilltop just northeast and uphill from the project site serves as the primary ridgeline for viewpoints to the east and northeast. From viewpoints oriented more directly to the south, the other hills north and west of the project site, which are somewhat higher in elevation, are seen rising up behind the project site and creating the visual horizon line.

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Figure 11 -- Location of New Residence on Proposed Parcel 2



Scenic Highway and Corridors

The project is within the viewshed of Highway 1. In 1999, Highway 1 was designated by the State of California as an Officially Designated Scenic Highway. The County promoted the designation based on the high level of visual quality along the corridor as well as the desire to protect its visual resources in the future. In 2003, Highway 1 was also bestowed the title of "All-American Road" in the National Scenic Byway program. This designation recognizes the visual characteristics of the Highway 1 corridor as being among the highest quality in the nation. These designations illustrate the highest level of concern and sensitivity for the aesthetics within the project area and beyond.

A scenic resource is a specific feature or element with a high degree of memorability or landmark characteristics that contributes to the high visual quality of the corridor. Scenic resources associated with the Highway 1 viewing experience in this area include elements such as the Pacific Ocean, Morro Rock, rocky shoreline and cliffs, hillside backdrops and ridgelines, rolling pastureland, and open space.

Discussion

Because of its location on the south side the project site, the building site for PP1 will be screened from public views by the existing topography and the distance to public vantage points. However, the dwelling for PP2 will be located at the top of the ridgeline where it could be visible to motorists travelling on Highway 1, a State Scenic Highway.

Accordingly, a visual impact assessment was prepared for the dwelling proposed on Proposed Parcel 2 (SWCA, August 2017). The following is a summary of the findings and conclusions of that analysis.

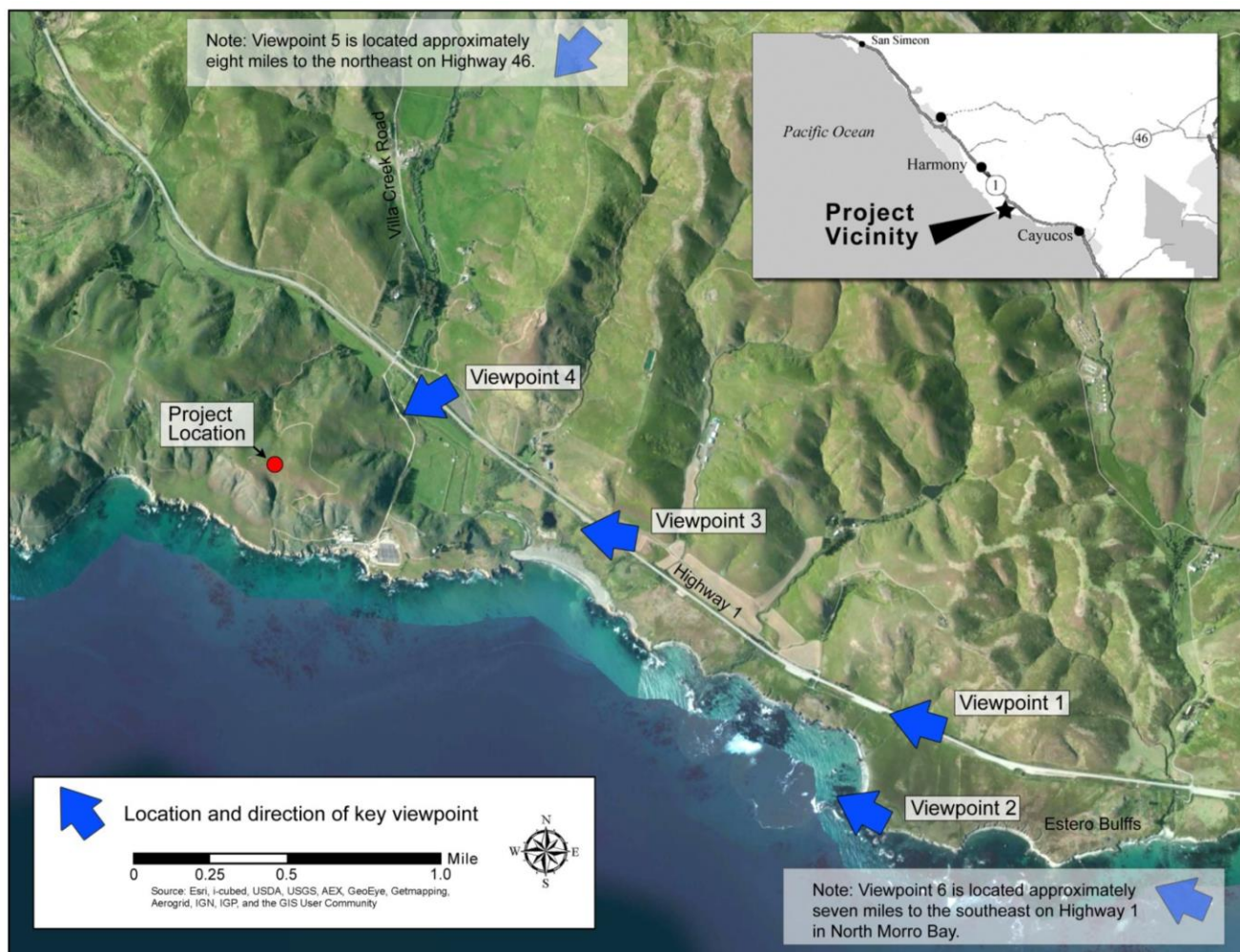
Assessment Methodology

As part of the visual analysis, critical viewpoints were identified to represent the potential visibility and character of the project as seen from surrounding public vantage points. The project study area was observed from all public roads and recreation areas in the vicinity in order to determine the extent of potential visibility. This field study showed that structures placed within the study area could potentially be seen from segments of Highway 1, the Estero Bluffs State Park, and from distant locations on Highway 46 and in the city of Morro Bay. From these public viewing areas, six

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representative viewpoints were selected from which to conduct the visibility assessment Figure 12). These viewpoint locations are described below. The viewpoints were selected as reasonable representations of a general type of view (e.g., views from the highway, views from the bluffs, etc.). They also indicate viewing locations from where the project study area would have the greatest potential to be noticed, considering factors such as view angle and orientation, viewing distance, duration, and expected viewer sensitivity.

Figure 12 -- Viewpoints For Visual Impact Analysis for Proposed Parcel 2



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Visual Simulations

Viewpoint 1

Viewpoint 1 is representative of the largest number of potential viewers and the longest duration of views while on the highway. The northbound lanes are oriented directly toward the project site in this area (Figures 13 and 14). Viewpoint 1 was specifically selected at this point on the highway because of its combination of viewing distance and view angle. The increasing distance of other viewpoints further to the south substantially reduces visual perception and noticeability. Other viewpoints along the highway to the north are closer to the project; however, the upward viewing angle begins to reduce visibility of the site due to the intervening landforms. Viewpoint 1 is a theoretical “worst-case” viewing location along Highway 1. Viewpoint 1 is the area where the project would potentially be most noticeable due to reduced viewing distance, and at the same time have the least amount of intervening landform blocking its visibility.

Residence. Direct observation of the project area with reference flags in place indicated that the proposed residential structure and water tank would not be visible from Viewpoint 1, due to intervening topography south and east of the project site. However, future site improvements and landscaping located on certain portions of the site would have the potential to be seen from this and other public viewpoints.

Driveway. Because of the viewing angle from Highway 1, the middle elevations of the driveway would be blocked by intervening landform. The uppermost portion of the driveway would have no retaining walls and limited grading; however, the asphalt surface of the driveway would visually contrast with surroundings and be easily visible. The lower portions of the driveway would be most noticed by the associated retaining walls. Darkening the colors of these retaining walls and using a highly textured surface would substantially reduce noticeability of the walls in these areas.

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Figure 13 -- Viewpoint 1 (Existing): From Highway 1 Looking Northbound Approximately 2.2 Miles Southeast of the Project



Figure 14 -- Viewpoint 1 (Proposed): From Highway 1 Looking Northbound Approximately 2.2 Miles Southeast of the Project



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Viewpoint 2

This viewpoint represents views from the Estero Bluffs State Park. Viewpoint 2 is approximately 2.1 miles from the project site (Figure 12). This specific viewpoint location was selected because the land juts farthest out into the ocean at this point. As a result, views to the project site are the least obscured by intervening landform (Figures 15 and 16). Viewpoint 2 is also at the northern end of Estero Bluffs and as a result is closer to the project site.

Residence. Direct observation of the project area with reference flags in place indicate that the proposed residential structure and water tank would not be visible from Viewpoint 2, due to intervening topography south and east of the project site. However, future site improvements and landscaping located on certain portions of the site would have the potential to be seen from this and other public viewpoints.

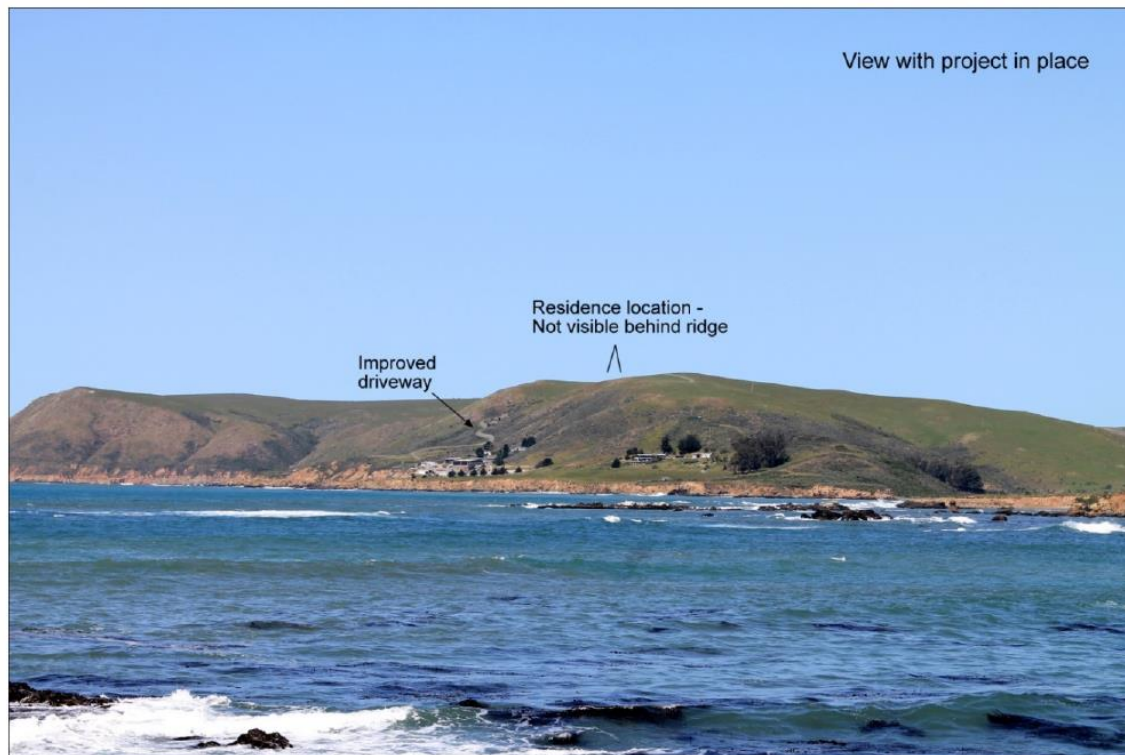
Driveway. Because this vantage point is farthest to the west and exposes more of the southern slope-face, the proposed driveway improvements would be most visible from this location. As seen from here, the approximately lower half of the driveway would be the most visible because of its curvilinear alignment and the associated retaining walls. Along the upper half of the driveway, an intermediate ridge blocks a portion of the visibility. The uppermost portion of the driveway would have no retaining walls and limited grading; however, the asphalt surface of the driveway would visually contrast with the surroundings and be easily visible. Where visible, the proposed retaining walls, with a maximum height of 6 feet, would not appear large when viewed from this viewing distance. However, because of their generally southwest facing orientations, the walls, if constructed of light-colored materials, would be reflective and potentially noticeable from great distances. The proposed asphalt driveway surface would tend to visually contrast with the surrounding natural grasses and other vegetation, but would be expected to fade to a light gray color, which would generally blend with the visual setting.

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Figure 15 -- Viewpoint 2 (Existing): From Estero Bluffs Trail Looking Northwest



Figure 16 -- Viewpoint 2 (Proposed): From Estero Bluffs Trail Looking Northwest



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Viewpoint 3

Viewpoint 3 was selected to represent another view from northbound Highway 1, somewhat closer to the project site than Viewpoint 1. From this closer viewing location, the project could be potentially more noticeable, although the ridge landform south and east of the project site may substantially block availability of views.

Residence. Direct observation of the project area with reference flags in place indicate that the proposed residential structure and water tank would not be visible from Viewpoint 3, due to intervening topography south and east of the project site. However, future site improvements and landscaping located on certain portions of the site would have the potential to be seen from this and other public viewpoints.

Driveway. Similar to Viewpoint 1, from this closer viewpoint on Highway 1, the middle elevations of the driveway would be blocked by landform. The uppermost portion of the driveway would have no retaining walls and limited grading; however, the asphalt surface of the driveway would visually contrast with the surroundings and be easily visible. Because the viewing angle is farther to the north, the intervening landform would block even more of the lower driveway. A relatively small portion of the lower driveway would be seen. Along that section, darkening the colors of the retaining wall and using a highly textured surface would substantially reduce noticeability.

Figure 17 -- Viewpoint 3 (Existing): From Highway 1 Looking Northbound Approximately 1.1 Miles Southeast of the Project



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Figure 18 -- Viewpoint 3 (Proposed): From Highway 1 Looking Northbound Approximately 1.1 Miles Southeast of the Project



Viewpoint 4

Viewpoint 4 is located on Highway 1 approximately perpendicular to the project study area. From this segment of the highway, the viewing proximity would be the closest (approximately 0.5 mile). Since the project study area is nearly perpendicular to the highway at this location, potential visibility would be from both the northbound and southbound directions of travel.

Residence. Direct observation of the project area with reference flags in place indicate that the proposed residential structure and water tank would not be visible from Viewpoint 4, due to intervening topography north and east of the project site. However, future site improvements and landscaping located on certain portions of the site would have the potential to be seen from this and other public viewpoints.

Driveway. Direct observation of reference flags in place indicate that the proposed driveway improvements would not be visible from Viewpoint 4, due to intervening topography north and east of the project site.

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Figure 19 -- Viewpoint 4 (Existing): From Highway 1 Looking West Nearly Perpendicular to the Project Site



Figure 20 -- Viewpoint 4 (Proposed): From Highway 1 Looking West Nearly Perpendicular to the Project Site



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Viewpoint 5

This distant viewpoint is approximately 8 miles northeast of the project site at a roadside pullout on Highway 46. As seen from this location, the ridgeline just northeast and uphill from the project site serves as part of the horizon line to the southwest.

Residence and Driveway. Direct observation of the project area with reference flags in place indicate that the proposed residential structure, driveway improvements, and water tank would not be visible from Viewpoint 5, due to intervening topography northeast of the project site. Regardless, even if the project were visible, the viewing distance would significantly reduce noticeability and make the project generally indistinguishable in the overall viewshed.

Figure 21 -- Viewpoint 5 (Existing): From Highway 46 Looking Southwest



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Figure 22 -- Viewpoint 5 (Proposed): From Highway 46 Looking Southwest



Viewpoint 6

Viewpoint 6 is located along Highway 1 near the northern limits of the city of Morro Bay, approximately 7 miles southeast of the project site. This viewpoint represents views of the project area from the northern Morro Bay area and nearby beaches. South of this area, views become more distant and the project site becomes more indistinguishable. North of this area, the coastline tends to curve inland and views to the project site become mostly blocked by development and by the hills throughout and north of Cayucos.

Residence and Driveway. Direct observation of the project area with reference flags in place indicate that a portion of the proposed residential structure, driveway, and water tank would be potentially visible below the ridgeline as seen from portions of Highway 1, southern Cayucos, the city of Morro Bay, and public beaches. However, because of the viewing distances, which range from approximately 7 to 11 miles, the project would be generally indiscernible in the distant scenery.

At these viewing distances, the form and materials of the project would be difficult to distinguish in the landscape. Exterior colors would potentially be the most noticeable visual elements of the project. Light, reflective exterior colors, which visually contrast with the adjacent landcover, could be seen for miles, especially because of their southwest-facing orientation. The use of darker, muted exterior colors would substantially reduce the noticeable visual contrast and visibility of the project.

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Figure 23 -- Viewpoint 6 (Existing): Highway 1 near the Northern Limits of Morro Bay Looking Northwest

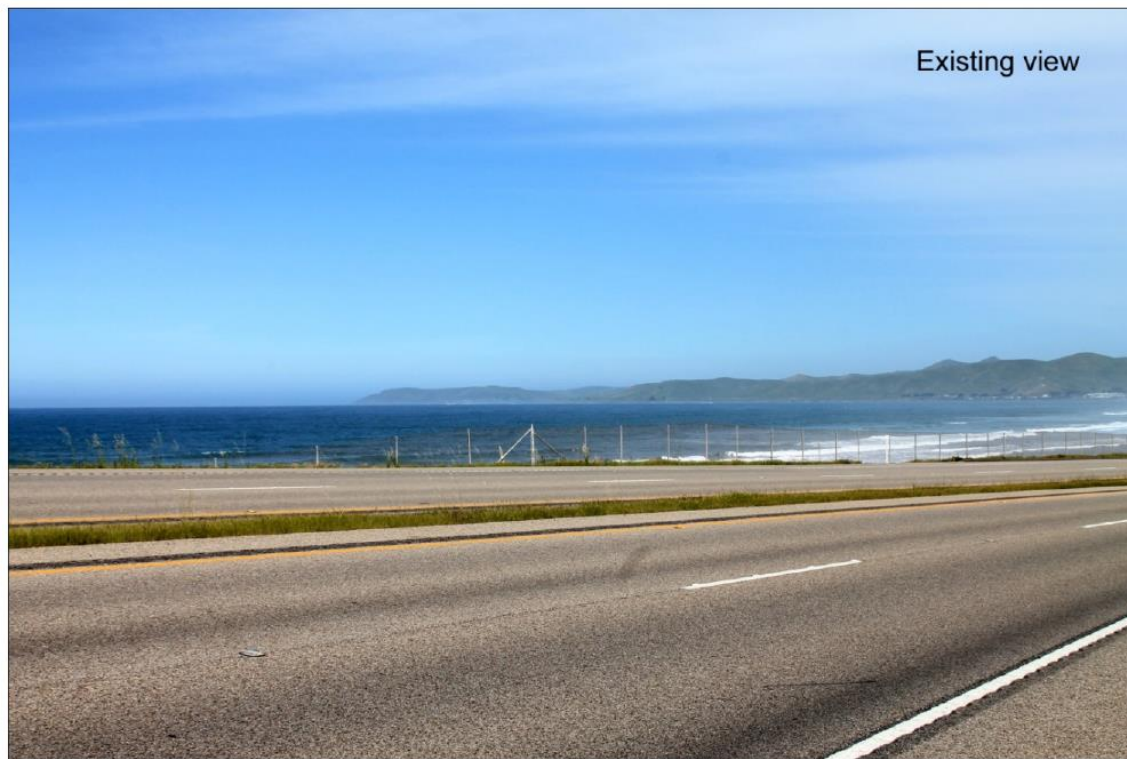


Figure 24 -- Viewpoint 6 (Proposed): Highway 1 near the Northern Limits of Morro Bay Looking Northwest



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Summary of Visual Simulations

Because the dwelling proposed for PP2 is located on the southwest face of the hill, the adjacent ridgeline landform tends to block views of the site from the north and east. From viewpoints oriented more to the south and west, the southwestern face of the ridge and project site is more exposed to view. The topographic depression, on which the proposed residence is located, allows the natural landform to the south and east to help block visibility of the project.

The hilltop just northeast and uphill from the project site serves as the primary ridgeline for viewpoints to the east and northeast. From potential viewing areas more directly to the south, the other hills north and west of the project site, which are somewhat higher in elevation, are seen rising up behind the project site and creating the visual horizon line.

The dwellings proposed for PP1 and PP2 would only be potentially visible from portions of northwest Morro Bay, including a short section of Highway 1 and portions of public beaches. Where seen, neither dwelling would silhouette above the ridgeline, and because of the great viewing distance (a minimum of 7 miles), neither would be easily seen in the overall viewshed. From all other public areas, both dwellings would be screened by topography and/or intervening development.

From most viewpoints, the approximately lower half of the driveway extending up the hill to PP2 would be the most visible because of its curvilinear alignment and the associated retaining walls. Along the upper half of the driveway, an intermediate ridge blocks a portion of the visibility. The uppermost portion of the driveway would have no retaining walls and limited grading; however, the asphalt surface of the driveway would visually contrast with surroundings and be easily seen.

Where visible, the proposed retaining walls, with a maximum height of 6 feet, would not appear large when viewed from this viewing distance. However, because of their generally southwest facing orientations, the walls, if constructed of light-colored materials, would be reflective and potentially noticeable from great distances. The proposed asphalt driveway surface would tend to visually contrast with the surrounding natural grasses and other vegetation, but would be expected to fade to a light gray color, which would generally blend with the visual setting.

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Will the project:

- (a) *Have a substantial adverse effect on a scenic vista?*
- (b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*
- (c) *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Proposed Parcel 1 – Development on Proposed Parcel 1 will be located within a 1.5 acre building site located on the coastal terrace at the extreme southwest corner of the project site where it will be screened from public views by the existing topography and the distance to public vantage points. The dwelling and associated improvements will not be visible from Highway 1 or other public vantages.

Proposed Parcel 2 -- Because the closest viewing distance from Highway 1 to the building site for PP2 would be approximately 7 miles, noticeability of the project would be substantially reduced. However, even at this distance, because the southern exteriors of the residence and water tank would be generally oriented toward public viewpoints on Highway 1, light exterior colors and reflective surfaces would potentially be seen contrasting against the surrounding hillside. The driveway would be mostly seen from sections of northbound Highway 1 at distances of between 1.5 and 3 miles away, and from the westernmost portion of Estero Bluffs State Park.

The project site is a sensitive site in terms of coastal and highway corridor aesthetic character. PP2 is adjacent to, and highly visible from, Highway 1, an Officially Designated State Scenic Highway and National Scenic Byway; both parcels are within the Coastal Zone.

The high visual quality of the region is due to a combination of several elements—primarily views of the Pacific Ocean, the coastline, varied topography, and inland hills. In addition to the natural features, the visual quality and character of the project setting is also influenced by the cultural environment. Scattered ranches, ranchland, and small coastal communities are also part of the visual experience.

Scenic vistas are generally defined as high-quality views displaying good aesthetic and compositional value that can be seen from public viewpoints. If a project substantially degrades the scenic landscape as viewed from public roads, or in particular designated scenic routes, or from other public or recreation areas, this would be considered a potentially significant impact on the scenic vista. For the purpose of this study, scenic vistas are considered to be views that are either defined as such by the County and/or are expansive views of a highly valued landscape for the benefit of the general public. Scenic vistas in the project vicinity include expansive views of the Pacific Ocean, the rocky shoreline, Morro Rock to the south, coastal bluffs, rolling hillsides and associated ridgelines, native vegetative patterns, and rural agricultural land. Where visible, the hillsides and ridgelines surrounding the project area contribute to the high quality of the scenic vista.

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From all identified viewpoints, neither residence will silhouette above the primary ridgeline. The closest public viewpoint would be in the vicinity of north Morro Bay, at a distance of approximately 7 miles. From this distance, both residences would occupy a very small percentage of the scenic viewshed and would be generally unseen in the overall viewshed.

Because of the viewing distances, to the casual observer, the most potentially noticeable aspect of the dwelling proposed for PP2 would be the color contrast and reflectivity of the residential structure and water tank. This reflectivity factor would be increased since the southern facades of the structures would be most exposed to public view. The use of darker earth-tone colors and materials, and reduction of reflective exterior surfaces, would substantially minimize the noticeability of the project as seen from distant viewpoints.

From most viewpoints, the approximately lower half of the driveway would be the most visible because of its curvilinear alignment and the associated retaining walls. The uppermost portion of the driveway would have no retaining walls and limited grading; however, the asphalt surface of the driveway would visually contrast with surroundings and be easily seen. Where visible, the proposed retaining walls, if constructed of light-colored materials, would be reflective and potentially noticeable from great distances.

Although not proposed as part of this project, it is reasonable to assume that in the future there may be a desire to construct or place site amenities such as sheds, outbuildings, patio structures, carports, tanks, fences, walls, storage areas, and other improvements on either residential site. In addition, trees and other landscaping may be planted around each site and along the driveway. Site amenities and landscaping, if placed in the most visible locations, would have the potential to be seen from great distances and could extend above the primary ridgeline on PP2.

The driveway would be mostly seen from sections of northbound Highway 1 at distances of between 1.5 and 3 miles away and from the westernmost portion of Estero Bluffs State Park. From these locations, the asphalt surface of the driveway would be more noticeable than the existing dirt roadway. Constructing the visible portions of the driveway surface out of colored materials would visually blend the road with the setting. The proposed retaining walls would add to the visibility of the driveway; however, measures such as using darker, earth tone colors and coarse textures as defined in the mitigation section of this report would substantially reduce noticeability.

The driveway would be mostly seen from sections of northbound Highway 1 at distances of between 1.5 and 3 miles away, and from the westernmost portion of Estero Bluffs State Park. From these locations, the asphalt driveway would be more noticeable than the existing unpaved roadway.

(d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

It is assumed that exterior lighting would be included as part of both residences for security and/or ornamental purposes.

Although the residences proposed for Parcels 1 and 2 would only be seen from viewing distances a minimum of 7 miles away, the entire project site and hillside backdrop are currently very dark and, without minimization measures, new sources of light would be visible in the distance. At night, these new sources of light would be evidence of development where none currently exists. As such, the

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potential combination of bright interior and exterior lights, windows, unshielded light sources, or bright-lights reflected on exterior walls may result in impacts as seen from public viewpoints.

Under certain seasonal daytime conditions, glare from the southwest facing window glass could be noticeable over great distances. This increased project noticeability and disruption of the existing hillside backdrop would result in potential lighting and glare impacts to both day and nighttime views. Given the sparsity of development and the distance to the nearest urban area (Cayucos), the project site and vicinity experience relatively little non-natural lighting which contributes to the rural character of the area. Therefore, the potential for new light and glare to adversely impact surrounding properties is considered significant unless mitigated.

Conclusion

The previous analysis supports the following conclusions:

- Development on Proposed Parcel 1 will not be visible from Highway 1 or other public vantage points.
- Although the residence on Proposed Parcel 2 could be seen from public viewpoints more than 7 miles away, potential noticeability would be increased if light-colored, contrasting and reflective exterior surfaces were constructed, resulting in potential impacts to the scenic vista.
- Noticeability of the proposed driveway would be increased if retaining walls were built of light-colored and contrasting materials, resulting in potential impacts to the scenic vista.
- Noticeability of the proposed driveway would be increased by the visibility of its asphalt surface, resulting in potential impacts to the scenic vista.
- Noticeability of the proposed driveway would be increased by the visibility of exposed earthwork, resulting in potential impacts to the scenic vista.
- Site amenities and other structures i.e. barns, sheds, water tanks, if placed in the most visible locations, would have the potential to be seen from great distances and could extend above the primary ridgeline, resulting in potential impacts to the scenic vista.
- Landscaping i.e. driveway trees, if placed in the most visible locations, would have the potential to be seen from great distances and could extend above the primary ridgeline, resulting in potential impacts to the scenic vista.
- Solid or light-colored fencing, if placed in the most visible locations on the site, would have the potential to be seen from great distances, resulting in potential impacts to the scenic vista.

Mitigation measures have been proposed to reduce the aesthetics/visual impacts of the project to a less than significant level. These mitigation measures include colors and materials for the residences, colors of the retaining walls and colors of portions of the driveway surfacing.

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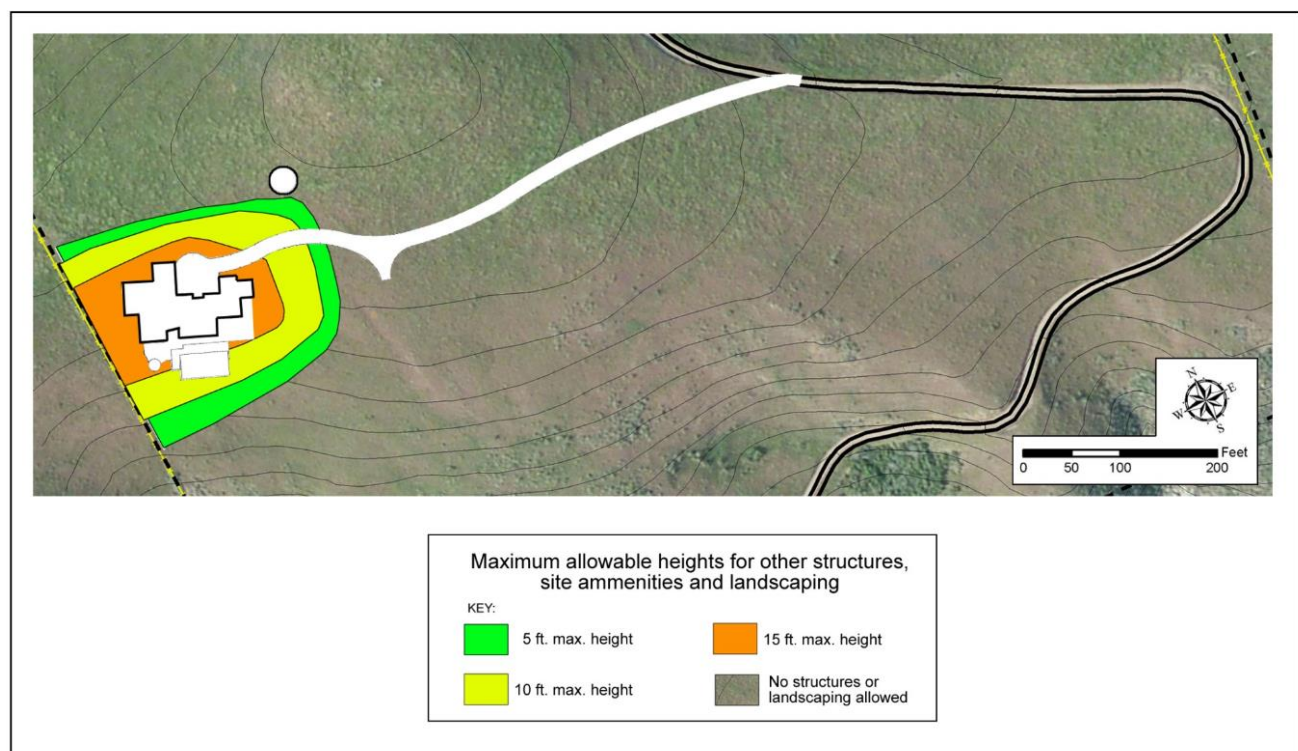
Mitigation

- AES-1** **Color & Material Selection - Prior to issuance of grading and/or construction permits,** the applicant shall submit residence plans and elevations to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- Exterior walls and roofing of the residence, water tank and structures on site shall be limited to dark muted earth- tones. Exterior colors shall be no brighter than 6 in chroma and value on the Munsell Color Scale on file in the County of San Luis Obispo Department of Planning and Building.
- AES-2** **Water Tanks - Prior to issuance of a construction permit and or grading permit,** the applicant shall submit site plans to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- The water tank on Proposed Parcel 2 shall be placed underground. If undergrounding is not feasible, it shall be painted with dark muted colors.
- AES-3** **Retaining Walls - Prior to issuance of a grading permit and/or construction permit,** the applicant shall submit driveway plans, elevations, and color boards to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- Between driveway Stations 6+50 to 12+00, and 20+00 to the residence on Proposed Parcel 2, the surface of the driveway shall be either colored concrete, colored asphalt, or colored open cell pavers such as “Grasscrete.” The color of the material comprising the roadway surface shall be a muted earth tone that matches the color of the surrounding soil.
 - General driveway retaining wall color shall be dark muted brown-grey, and shall be no brighter than 6 in chroma and value on the Munsell Color Scale on file in the County of San Luis Obispo Department of Planning and Building.
 - Driveway retaining walls shall have a coarse textured surface, such as Allan Block or similar.
- AES-4** **Natural Looking Erosion Control Seeding - Prior to issuance of a grading permit and/or a construction permit,** the applicant shall submit comprehensive erosion control plans to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- Erosion control seeding shall be applied to all disturbed areas along the driveway. The erosion control/seeding plan should be prepared by a qualified erosion control and revegetation expert. The erosion control strategy should include a seed mix consisting species that will visually resemble the vegetation found on the adjacent hillsides.

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- AES-5** **Height Restriction** - No other structures or site amenities shall be built or placed on the project site which exceed the allowable heights shown on *Figure 21 Max. Allowable Heights – Visual Impact Assessment, SWCA 2017 - below*. Site amenities or other structures include but are not limited to sheds, outbuildings, patio structures, carports, tanks, walls, etc.
- AES-6** **Landscape Restriction** - No trees or shrubs shall be planted on the project site which have the potential at maturity to exceed the allowable heights shown on *Figure 21 Max. Allowable Heights – Visual Impact Assessment, SWCA 2017 - below*. No palm trees or Italian cypress shall be planted anywhere on the project sites, including along driveways. No lawn or turf shall be planted anywhere on the project where it would be visible from Highway 1 or Estero Bluffs State Park.

Figure 21. Maximum allowable heights for other structures, site amenities and landscaping.



- AES-7** **Fencing** - No solid fencing shall be installed where it can be seen from Highway 1. Fencing shall have an open character and be agricultural or rural in appearance. Fencing colors shall be generally earth-tone, and white or light-colored materials or paint shall not be used.
- AES-8** **Nighttime Lighting** - **Prior to issuance of construction permits**, the applicant shall submit a light pollution prevention plan (LPPP) to the County Planning Department for approval that incorporates the following measures to reduce impacts related to night lighting:
- Prevent all interior lighting from being detected outside the facilities between the period of 1 hour before dusk and 1 hour after dawn;
 - All facilities employing artificial lighting techniques shall include shielding and/or blackout tarps that are engaged between the period of 1 hour before dusk and 1 hour

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after dawn and prevent any and all light from escaping;

- c. Any exterior path lighting shall be located and designed to be motion activated, and be directed downward and to the interior of the site to avoid the light source from being visible off-site. Exterior path lighting shall be “warm-white” or filtered (correlated color temperature of < 3,000 Kelvin; scotopic/photopic ratio of < 1.2) to minimize blue emissions; and
- d. Any exterior lighting used for security purposes shall be motion activated, be located and designed to be motion activated, and be directed downward and to the interior of the site to avoid the light source from being visible off-site, and shall be of the lowest-lumen necessary to address security issues.

AES-9 Glare Reduction - Prior to issuance of construction permits, the applicant shall submit window plan and specification to the County Planning Department for approval showing no reflective coatings shall be used on exterior south and southwest facing windows.

Sources

See Exhibit A.

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II. AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</i>				
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The project site is located within the Agriculture land use category and has been used for the cultivation of barley. The project site is located within the Cayucos Agricultural Preserve but is not subject to an active Land Conservation Act (LCA) contract. The project site has historically been used for kelp farming and intermittent cattle grazing.

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Based on the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (NRCS 2019) and the Soil Survey of San Luis Obispo County, California – Coastal Area (USDA 1983), soil type(s) and characteristics on the project site include the following:

Cropley clay (0 - 2 % slope). This nearly level clayey soil is considered very poorly drained. The soil has moderate erodibility and high shrink-swell characteristics, as well as having potential septic system constraints due to: slow percolation. The soil is considered Class III without irrigation and Class II when irrigated.

Gazos-Lodo clay loams (30 - 50% slope).

Gazos. This steeply sloping fine loamy soil is considered not well drained. The soil has moderate erodibility and moderate shrink-swell characteristics, as well as having potential septic system constraints due to: steep slopes, shallow depth to bedrock, slow percolation. The soil is considered Class VI without irrigation and Class is not rated when irrigated.

Lodo. This steeply sloping fine loamy soil is considered very poorly drained. The soil has moderate erodibility and moderate shrink-swell characteristics, as well as having potential septic system constraints due to: steep slopes, shallow depth to bedrock. The soil is considered Class VI without irrigation and Class is not rated when irrigated.

Gazos-Lodo clay loams (50 - 75% slope).

Gazos. This very steeply sloping fine loamy soil is considered not well drained. The soil has moderate erodibility and moderate shrink-swell characteristics, as well as having potential septic system constraints due to: steep slopes, shallow depth to bedrock, slow percolation. The soil is considered Class VII without irrigation and Class is not rated when irrigated.

Lodo. This very steeply sloping fine loamy soil is considered very poorly drained. The soil has moderate erodibility and moderate shrink-swell characteristics, as well as having potential septic system constraints due to: steep slopes, shallow depth to bedrock. The soil is considered Class VII without irrigation and Class is not rated when irrigated.

Still gravelly sandy clay loam (2 - 9% slope). This gently sloping gravelly fine loamy soil is considered moderately drained. The soil has moderate erodibility and moderate shrink-swell characteristics, as well as having potential septic system constraints due to: slow percolation. The soil is considered Class III without irrigation and Class II when irrigated.

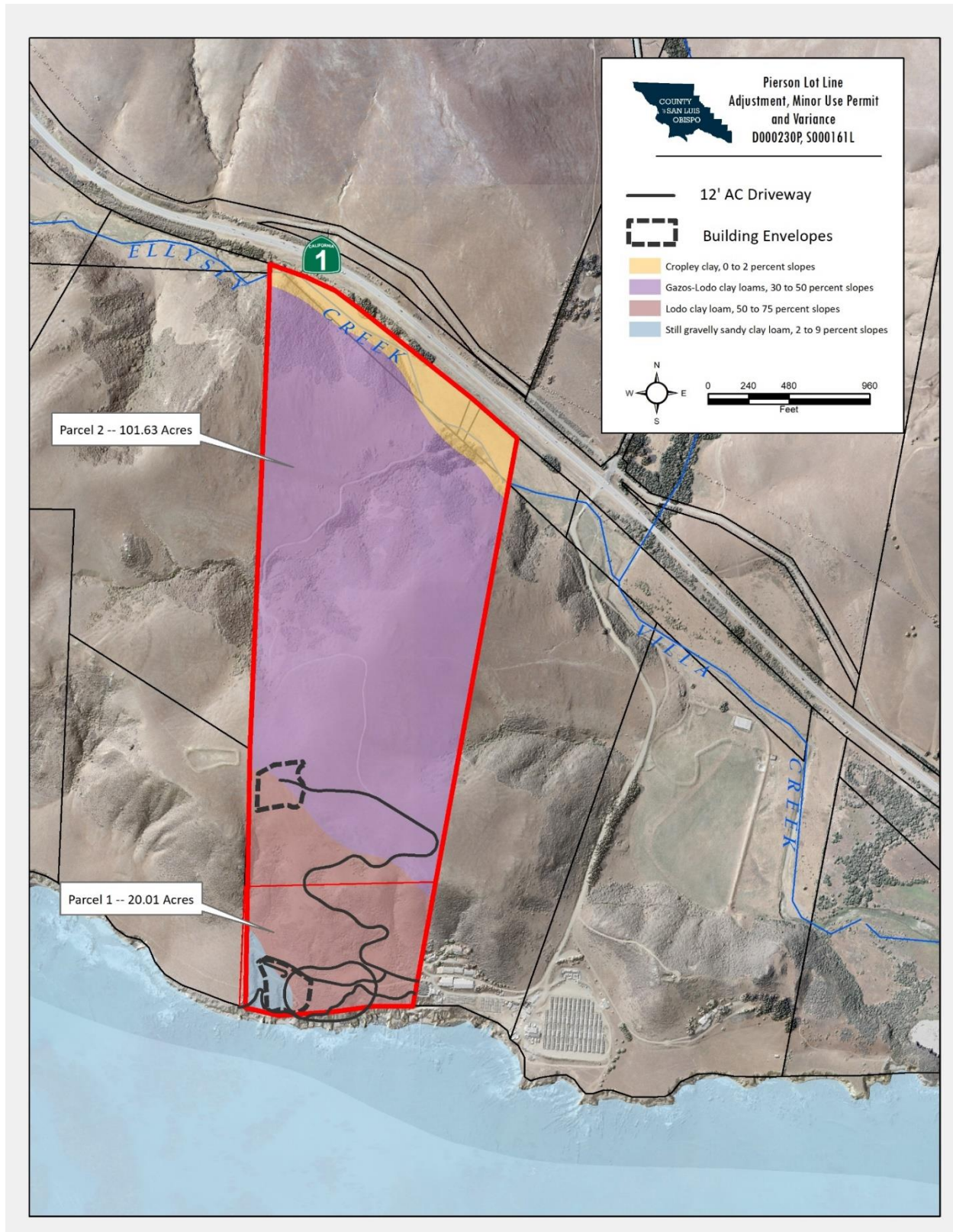
Table 3 provides a summary of soils of the project site by acres.

Table 3 – Soils On the Project Site		
Soil	Acres	Percent
Cropley clay, 0 to 2 percent slopes	9.3	7.4%
Gazos-Lodo clay loams, 30 to 50 percent slopes	85.4	70.2%
Lodo clay loam, 50 to 75 percent slopes	24.6	20.2%
Still gravelly sand clay loam, 2 to 9 percent slopes	2.3	1.9%
Total:	121.6	100%

Source: NRCS Web Soil Survey, 2018

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Figure 25 -- Soils of the Project Site



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Discussion

- (a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

As shown in Figure 26, the project site contains areas of Prime Farmland as defined by the NRCS and Table SL-2 of the County's Conservation and Open Space Element. The total acreage of Prime Farmland on the project site is 10.1 acres. These soils occur generally on the gently sloping terrain on the north side of Ellysly Creek and on a small portion of the coastal bluff where the dwelling on Proposed Parcel 1 will be located (Figure 26). Construction of the dwelling and driveway for Proposed Parcel 1 will result in the permanent conversion of about 0.5 acres of Prime Farmland.

The project will have no impact on the Prime Farmland located along Ellysly Creek. However, it should be noted that neither of the areas containing Prime Farmland have supported crops in the past nor have they been irrigated over the past four years.

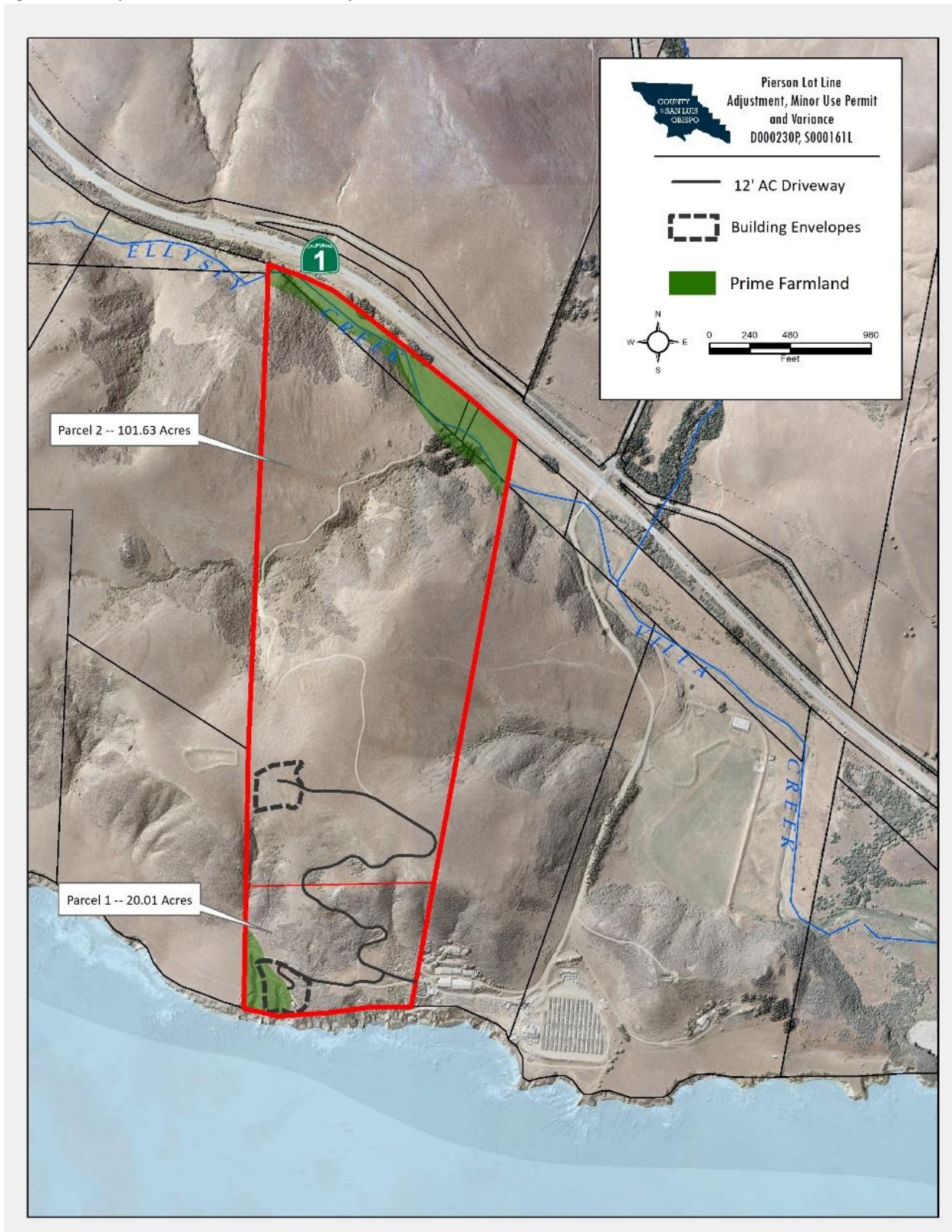
Table 4 provides a summary of the changes in the acreage of important farmland in San Luis Obispo County from 2006 to 2016 (the most recent year for which data are available) as determined by the California Department of Conservation, Farmland Mapping and Monitoring Program. As shown in Table 4, over the ten-year period between 2006 and 2016 the County experienced a net increase in the acreage of important farmland of about 126,781 acres, including a net increase of 1,466 acres of prime farmland.

Table 4 – Acreage of Important Farmland in San Luis Obispo County, 2006 – 2016

Land Use Category	2006	2008	2010	2012	2014	2016	Net Change
Prime Farmland	39,722	41,569	41,319	40,860	40,990	41,188	+1,466
Farmland of Statewide Importance	19,721	21,109	21,132	20,884	21,908	22,697	+2,976
Unique Farmland	36,411	38,777	39,950	39,979	43,225	45,175	+8,764
Farmland of Local Importance	174,552	309,081	307,325	304,401	289,309	288,127	+113,575
IMPORTANT FARMLAND SUBTOTAL	270,406	410,536	409,726	406,124	395,432	397,187	+126,781
Grazing Land	742,004	1,183,042	1,181,015	1,183,035	1,189,777	1,189,168	+447,164
AGRICULTURAL LAND TOTAL	1,012,410	1,593,578	1,590,741	1,589,159	1,585,209	1,586,355	+573,945

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Figure 26 -- Important Farmland on the Project Site



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Project impacts to Prime Farmland are considered less than significant because:

- As shown in Table 4., the total acreage of prime farmland impacted by the project (about 0.5 acre) is less than 0.002 percent of the prime farmland in the county.
- The project was referred to the Agricultural Commission for review and comment. In their letter dated December 19, 2017, they have recommended that the project be conditioned to provide a grazing management plan for all areas outside the proposed building envelopes to help protect rangeland and reduce project impacts to agricultural resources. The recommended conditions of approval set forth in their letter of December 19, 2017, will be incorporated into the project conditions.
- The project is consistent with the following policies of the Agriculture Element with regard to the protection and preservation of productive agricultural land:

AGP18: Location of Improvements.

- a. Locate new buildings, access roads, and structures so as to protect agricultural land.*

Discussion: A single family residence is an allowed use in the Agriculture land use category and the dwellings will be located in areas where agricultural operations (grazing) on the remainder of the project site will be unaffected.

AGP24: Conversion of Agricultural Land.

- a. Discourage the conversion of agricultural lands to non-agricultural uses through the following actions:*

- 1. Work in cooperation with the incorporated cities, service districts, school districts, the County Department of Agriculture, the Agricultural Advisory Liaison Board, Farm Bureau, and affected community advisory groups to establish urban service and urban reserve lines and village reserve lines that will protect agricultural land and will stabilize agriculture at the urban fringe.*

Discussion: The project site is located about four miles outside the nearest urban reserve (Cayucos).

- 2. Establish clear criteria in this plan and the Land Use Element for changing the designation of land from Agriculture to non-agricultural designations.*
- 3. Avoid land redesignation (rezoning) that would create new rural residential development outside the urban and village reserve lines.*
- 4. Avoid locating new public facilities outside urban and village reserve lines unless they serve a rural function or there is no feasible alternative location within the urban and village reserve lines.*

Discussion: The project is consistent with the allowable land uses in the Agriculture land use category and does not propose a change in the land use designation.

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(b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

The project site is within the *Agriculture* land use category (zoning) where a single family residence is allowed subject to the standards set forth in CZLUO Section 23.04.024.

Neither existing parcel meets these standards. The parcels sizes resulting from the proposed lot line adjustment (Figure 3) will also not meet these standards, which remain equal after the adjustment.

b. Size based upon existing use.

Agricultural Use	Minimum Parcel Size (ordinance)	Existing Parcel Sizes	Proposed Parcel Sizes
Grazing	320 Acres	Parcel 1: 112.41 acres Parcel 2: 9.23 acres	Parcel 1: 20.01 acres Parcel 2: 101.63 acres

c. Size based upon land capability.

Land Capability Classification	Minimum Parcel Size (ordinance)	Existing Parcel Sizes	Proposed Parcel Sizes
IV-VI	160 Acres	Parcel 1: 112.41 acres Parcel 2: 9.23 acres	Parcel 1: 20.01 acres Parcel 2: 101.63 acres

The project site is not subject to a Williamson Act contract. Lastly, agricultural activities on the remainder of the project site would not be affected.

(c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

(d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

The project site does not consist of forest land as defined by the Public Resources Code.

(e) *Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of farmland to a non-agricultural use or the conversion of forest land to a non-forest use?*

The preceding discussion indicates that the proposed development will complement existing ongoing agricultural operations on the project site and in the vicinity.

Conclusion

No significant impacts to agricultural resources would occur.

Mitigation

No mitigation measures are required.

Sources

See Exhibit A.

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III. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:</i>				
(a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The project site is located in the South Central Coast Air Basin (SCCAB) under the jurisdiction of the San Luis Obispo County Air Pollution Control District (APCD). The APCD is in non-attainment for the 24-hour state standard for particulate matter (PM₁₀) and the eight-hour state standard for ozone (O₃) (SLOAPCD 2015). The APCD adopted the 2001 Clean Air Plan in 2002, which sets forth strategies for achieving and maintaining Federal and State air pollution standards. The APCD identifies significant impacts related to consistency with the 2001 Clean Air Plan by determining whether a project would exceed the population projections used in the Clean Air Plan for the same area, whether the vehicle trips and vehicle miles traveled generated by the project would exceed the rate of population growth for the same area, and whether applicable land use management strategies and transportation control measures from the Clean Air Plan have been included in the project to the maximum extent feasible. The CAP provides a complete description of the air basin and the environmental and regulatory setting and is incorporated by reference. The CAP may be reviewed in its entirety by following this link: <https://www.slocleanair.org/rules-regulations/clean-air-plan.php>

The San Luis Obispo County Air Pollution Control District (SLOAPCD) has developed and updated their CEQA Air Quality Handbook (2012) to evaluate project-specific impacts and help determine if air quality mitigation measures are needed, or if potentially significant impacts could result. To evaluate long-term emissions, cumulative effects, and establish countywide programs to reach acceptable air quality levels, the SLOAPCD prepared and adopted a Clean Air Plan.

Thresholds of Significance for Construction Activities. The APCD's CEQA Handbook establishes thresholds of significance for construction activities (Table 5). According to the Handbook, a project with grading in excess of 4.0 acres and/or a project that will move 1,200 cubic yards of earth per day can exceed the construction threshold for respirable particulate matter (PM₁₀). In addition, a project with the potential to generate 137

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lbs per day of ozone precursors (ROG + NO_x) or diesel particulates in excess of 7 lbs per day can result in a significant impact.

Table 5 – Thresholds of Significance for Construction

Pollutant	Threshold1		
	Daily	Quarterly Tier 1	Quarterly Tier 2
ROG+NO _x (combined)	137 lbs	2.5 tons	6.3 tons
Diesel Particulate Matter	7 lbs	0.13 tons	0.32 tons
Fugitive Particulate Matter (PM ₁₀), Dust ₂		2.5 tons	
Greenhouse Gases (CO ₂ , CH ₄ , N ₂ O, HFC, CFC, F ₆ S)	Amortized and Combined with Operational Emissions		

Source: SLO County APCD CEQA Air Quality Handbook, page 2-2.

Notes:

1. Daily and quarterly emission thresholds are based on the California Health & Safety Code and the CARB Carl Moyer Guidelines.
2. Any project with a grading area greater than 4.0 acres of worked area can exceed the 2.5 ton PM₁₀ quarterly threshold.

Thresholds of Significance for Operations. Table 1-1 of the APCD's CEQA Handbook provides screening criteria based the size of different types of projects that would normally exceed the operational thresholds of significance for greenhouse gases and ozone precursors. The list of project categories in Table 1-1 is not comprehensive and does not include cannabis-related activities. However, operational impacts are focused primarily on the indirect emissions associated with motor vehicle trips associated with development. For example, a project consisting of 99 single family residences generating 970 average daily vehicle trips would be expected to exceed the 25 lbs/day operational threshold for ozone precursors. A project consisting of 54 single family residences generating 529 average daily motor vehicle trips would be expected to exceed the threshold for greenhouse gas emissions.

The APCD has also estimated the number of vehicular round trips on an unpaved roadway necessary to exceed the 25 lbs/day threshold of significance for the emission of particulate matter (PM₁₀). According to the APCD estimates, an unpaved roadway of one mile in length carrying 6.0 round trips would likely exceed the 25 lbs/day PM₁₀ threshold.

The prevailing winds in the project vicinity are from the north and west (onshore) during the daylight hours and are slightly offshore at night. The nearest offsite residences are upwind to the west.

Discussion

(a) Conflict with or obstruct implementation of the applicable air quality plan?

The project site is located in the area governed by the 2001 San Luis Obispo Clean Air Plan (CAP). In order to be considered consistent with CAP, a project must be consistent with the land use planning and transportation control measures and strategies outlined in the CAP (SLOAPCD 2012). Adopted land use planning strategies include, but are not limited to, planning compact communities with higher densities, providing for mixed land use, and balancing jobs and housing. The project does not include development of retail or commercial uses that would be open to the public, therefore, land use planning strategies such as mixed-use development and planning compact communities are

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generally not applicable. The project would result in the establishment of activities that are residential in nature. The project would not result in a significant increase in residents and therefore would not significantly affect the local area's jobs/housing balance.

Adopted transportation control measures include, but are not limited to, a voluntary commute options program, local and regional transit system improvements, bikeway enhancements, and telecommuting programs. The project will not generate permanent jobs; therefore it will not be a feasible candidate for participation in a telecommuting program. The regional transit system serves this area; however, given the residential nature of the project, improvements to the transit system are not feasible. The project site is in a rural area, off an established bikeway system, and therefore bikeway enhancements are not feasible.

Therefore, the project would not conflict with or obstruct implementation of the CAP; therefore, impacts would be *less than significant*.

- (b) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Construction Related Emissions. The project will result site disturbance as summarized in Table 6, below.

Table 6 -- Summary of Total Site Disturbance	
Project Component	Quantity
Grading on slopes >30%	+/- 0.15 Acres
Total Site Disturbance:	3.16 Acres
Cut	8,500 cy
Fill	4,800 cy
Balance (export)	3,700 cy

Grading and construction activities will result in temporary construction-related traffic amounting to about three trips per day for the duration of grading and construction activities.

Grading and excavation activities will generate exhaust emissions from construction equipment and vehicles, and particulate matter (fugitive dust) from earth disturbance. In addition, the emission of ozone precursors (NO_x and ROG) associated with these activities would contribute to periodic high ozone levels in the southern portion of the County.

The project will result in the disturbance of less than 4 acres but is likely to be moving more than 1,200 cubic yards/day of material associated with roadway and building pad construction, and therefore will likely exceed the general thresholds triggering construction-related mitigation. The project is not in close proximity to sensitive receptors that might otherwise result in nuisance complaints and be subject to limited dust and/or emission control measures during construction.

Operation-Related Emissions. As discussed above, a project that generates less than 99 average daily motor vehicle trips will likely generate emissions that fall below the threshold of significance for ozone precursors. Therefore, from an operational standpoint, based on Table 1-1 of the CEQA Air Quality Handbook (2012), the project will not exceed operational thresholds triggering mitigation.

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Overall, impacts related to exceedance of federal, state, or SLOAPCD ambient air quality standards due to operational activities would be less than significant and less than cumulatively considerable.

(c) *Expose sensitive receptors to substantial pollutant concentrations?*

Sensitive receptors are people or other organisms that may have a significantly increased sensitivity to exposure to air pollution by virtue of their age and health (e.g. schools, day care centers, hospitals, nursing homes), regulatory status (e.g. federal or state listing as a sensitive or endangered species), or proximity to the source. The nearest offsite residence is about 1 mile to the east. Residences may be occupied by sensitive receptors who could be exposed to diesel particulates and fugitive dust from construction activities. Construction of the roadway improvements and dwellings is not expected to adversely impact the nearest offsite residence. Therefore, potential impacts to sensitive receptors are considered *less than significant*.

According to the APCD CEQA Air Quality Handbook, Naturally Occurring Asbestos (NOA) has been identified as a toxic air contaminant by the California Air Resources Board (CARB). Under the CARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, prior to any grading activities a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the District. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the APCD. Based on the APCD on-line map of potential NOA occurrence, the project site may lie in the area where a geologic study for the presence of NOA is required. However, according to a site-specific Geologic Hazard Report prepared by Earth Systems in July, 2019 that includes a subsurface investigation of soils and rock formations, the project site is underlain by graywacke sandstone, a material that is unlikely to have asbestos minerals. Accordingly, this is considered *less than significant*.

(d) *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Based on the distance to the nearest sensitive receptor and the nature of the proposed development, impacts from other emissions such as odors on nearby sensitive receptors would be less than significant.

Conclusion

When comparing the project's potential operational emissions to APCD thresholds, potential impacts related to air quality are considered be less than significant. However, construction activities could adversely impact offsite sensitive receptors. With incorporation of mitigation measures AQ-1 and AQ-2, impacts to air quality are considered less than significant.

Mitigation

- AQ-1 Fugitive Dust Emissions.** The following measures shall be implemented to minimize construction-generated emissions. These measures are based on SLOAPCD standard mitigation measures and would help to ensure compliance with the SLOAPCD's 20% opacity limit (SLOAPCD Rule 401) and nuisance rule (SLOAPCD Rule 402). These measures shall be shown on grading and building plans:
- Construction of the proposed project shall use low-VOC content paints not exceeding 50 grams per liter.

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- b. To the extent locally available, prefabricated building materials or materials that do not require the application of architectural coatings shall be used.
- c. Reduce the amount of the disturbed area where possible.
- d. Use water trucks, APCD approved dust suppressants (see Section 4.3 in the CEQA Air Quality Handbook), or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the District's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible. Please note that since water use is a concern due to drought conditions, the contractor or builder shall consider the use of an APCD-approved dust suppressant where feasible to reduce the amount of water used for dust control. For a list of suppressants, see Section 4.3 of the CEQA Air Quality Handbook.
- e. All dirt stock-pile areas should be sprayed daily as needed.
- f. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
- g. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established.
- h. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD.
- i. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- j. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- k. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.
- l. Install wheel washers at the construction site entrance, wash off the tires or tracks of all trucks and equipment leaving the site, or implement other SLOAPCD-approved methods sufficient to minimize the track-out of soil onto paved roadways.
- m. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- n. The burning of vegetative material shall be prohibited. Effective February 25, 2000, the APCD prohibited developmental burning of vegetative material within San Luis Obispo County. If you have any questions regarding these requirements, contact the SLOAPCD Engineering and Compliance Division at (805) 781-5912.
- o. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition.
- p. When applicable, portable equipment, 50 horsepower (hp) or greater, used during construction activities shall be registered with the California statewide portable equipment registration

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program (issued by the California Air Resources Board) or be permitted by the APCD. Such equipment may include: power screens, conveyors, internal combustion engines, crushers, portable generators, tub grinders, trammel screens, and portable plants (e.g, aggregate plant, asphalt plant, concrete plant). For more information, contact the SLOAPCD Engineering and Compliance Division at (805) 781-5912.

Sources

See Exhibit A.

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IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Setting

A biological resource assessment (BRA) including a wetland delineation was prepared in 2001 by VL Holland, Ph.D.. The following is a summary of the findings and recommendations of that study.

The study site is immediately west of the Abalone Farm Inc., which forms its eastern boundary, and immediately east of the undeveloped Schneider property, which forms its western boundary. Currently there is no direct access to the property from Highway 1. Access is currently available via the private southern extension of Villa Creek Road through the Abalone Farm Inc. property. This road, which enters the site from Highway 1, is just opposite (west of) Villa Creek Road on the north side of Highway 1. After passing through the Abalone Farm property, entrance to the study site itself is through a locked gate located in the southeastern corner of the site near the ocean bluff. Once on the property, the road traverses the southern portion of the site in an east to west direction along the marine terrace parallel to the seabuff. This road provides access to one of the proposed building envelopes (Proposed Parcel 1) and to the two historical buildings on the site, the Chinese Kelp Farmer Dwelling and a Storage Building.

A second road forks off this southern road, climbs up the steep hillside to the north, and traverses most of the site in a north to south direction. This road, which currently provides access to the second building envelope (Proposed Parcel 2) located near the ridgeline, dead-ends near a grove of eucalyptus near the edge of a marshland that parallels Ellysly Creek and Highway 1. This extensive marshland and creek system is the prominent land feature in the northern portion of the site along the south side of Highway 1 and blocks access to the Highway from the study.

The terrain and geology of the site is diverse and variable. The bedrock or parent material has been mapped as Cretaceous-Jurassic age Franciscan Melange, a strongly sheared mixture of sandstone, claystone, and various other sedimentary, igneous, and metamorphic rocks. No serpentinite was noted on the site although it does occur in the hillsides west of the study site. The floodplain of the Ellysly Creek, which characterizes the northernmost portion of the site, consists of Quaternary alluvium.

A small, slightly sloping marine terrace characterizes the southernmost portion of the study site. The terrace ends rather abruptly at the bluffs along the ocean and drops steeply to a rocky shore and intertidal zone. The terrace has been cut and eroded and large ravines have been cut by the drainages that empty into the ocean. Some of these ravines have debris that has been dumped along the slopes such as old lumber and fencing. Immediately inland (north of) the marine terrace are steep, south facing hillsides that rise to about 425 feet at their highest point on the ridgeline near the center of the study site.

Ellysly Creek roughly parallels the south side of Highway 1 along the northern boundary of the study site. During the rainy season, Ellysly Creek overflows and floods a broad floodplain. Sheets of water cover the entire floodplain during high water flow but is constricted to several small channels that form the braided floodplain after water flow decreases. The floodplain supports an extensive freshwater/brackish water marshland that extends from the toe of the hillsides and the blue gum stand to the northern boundary of the study site near Highway 1. Ellysly Creek joins Villa Creek just east of Villa Creek Road on the Abalone Farm property. Villa Creek forms a complex of braided channels, extensive wetlands, and lagoons immediately inland from China Harbor east of Point Estero.

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Historically the project site was used primarily by the Chinese Kelp Farmer and as rangeland for cattle. Much of the site is steep and covered by dense stands of coastal scrub rendering it relatively inaccessible to cattle, humans, and building developments. The majority of the site is covered by relatively pristine native plant communities except for the patches of blue gum eucalyptus at the edge of the Ellylsy Creek marshland near Highway 1. Many of these blue gum trees have fallen because of the waterlogged soils and winds and litter the small marsh at the mouth of the small creek. However, there are also several saplings on the slopes just above the marsh that are becoming established

Methodology

Biological surveys of the study site were conducted from January 29 through May 13, 2001. The field surveys consisted of canvassing the area on foot and recording the wildlife observed on the site and the plant species found in identifiable condition. Plant communities and wildlife habitats were described and delineated on an aerial orthophotograph.

Diverse plant species, wildlife species, and eight biotic communities/ wildlife habitats were identified. However, this is not a complete list of plants present on the site. Plant species composition, especially herbaceous cover, varies seasonally and annually. During the time of these surveys, many herbaceous plant species were in identifiable condition but many others were represented by the dry remains of last year's standing crop or by immature plants. A thorough survey through the entire year would be necessary for a complete listing of the flora found on the project site.

As with plants, wildlife species found on the site vary seasonally and annually. The wildlife species listed were those observed on the site, observed using similar habitats near the site, or expected to use the site seasonally. During the biological survey of the project site, plant communities and wildlife habitats were described and potential effects of the proposed development on the natural vegetation and wildlife habitats were noted. Areas likely to be disturbed through proposed road construction site preparation, and home construction received special attention.

A wetland delineation was also conducted for the areas on and around the path of a then-proposed access road to the site. The delineation examined vegetation, soils, and hydrology following procedures outlines in the 1987 Army Corps of Engineers Wetland Delineation Manual. This access road is no longer a part of the project.

Habitats of the Project Site

A total of 190 plant species and eight biotic communities were identified on the site. Of the 90 species identified, 122 are California native species and 67 are introduced species. Of the native species, there was one tree, 20 shrubs, 61 dicot forbs, 7 ferns and fern allies, 6 monocot forbs, 9 rushes and sedges, and 15 native grasses. Of the introduced species, there was one tree, one shrub, 47 dicot forbs, and 17 grasses.

Vegetation refers to the life form or general aspect and species compositions of the plant life in a particular site or region. Biotic communities are made up of both plant and animal species. Plant communities provide habitat for, and exist in tandem with, populations of wildlife species that are as dynamic and varied as the vegetation they inhibit.

The biotic communities on the study site (Figure 27) include (1) Rocky shore, (intertidal, and near shore waters; (2) coastal seabluft scrub; (3) Coastal scrub (including rock outcrops); (4) California native grassland; (5) Riparian; (6) Freshwater and Brackish water marshlands; (7) Seasonal freshwater marshes; and (8) Anthropogenic communities.

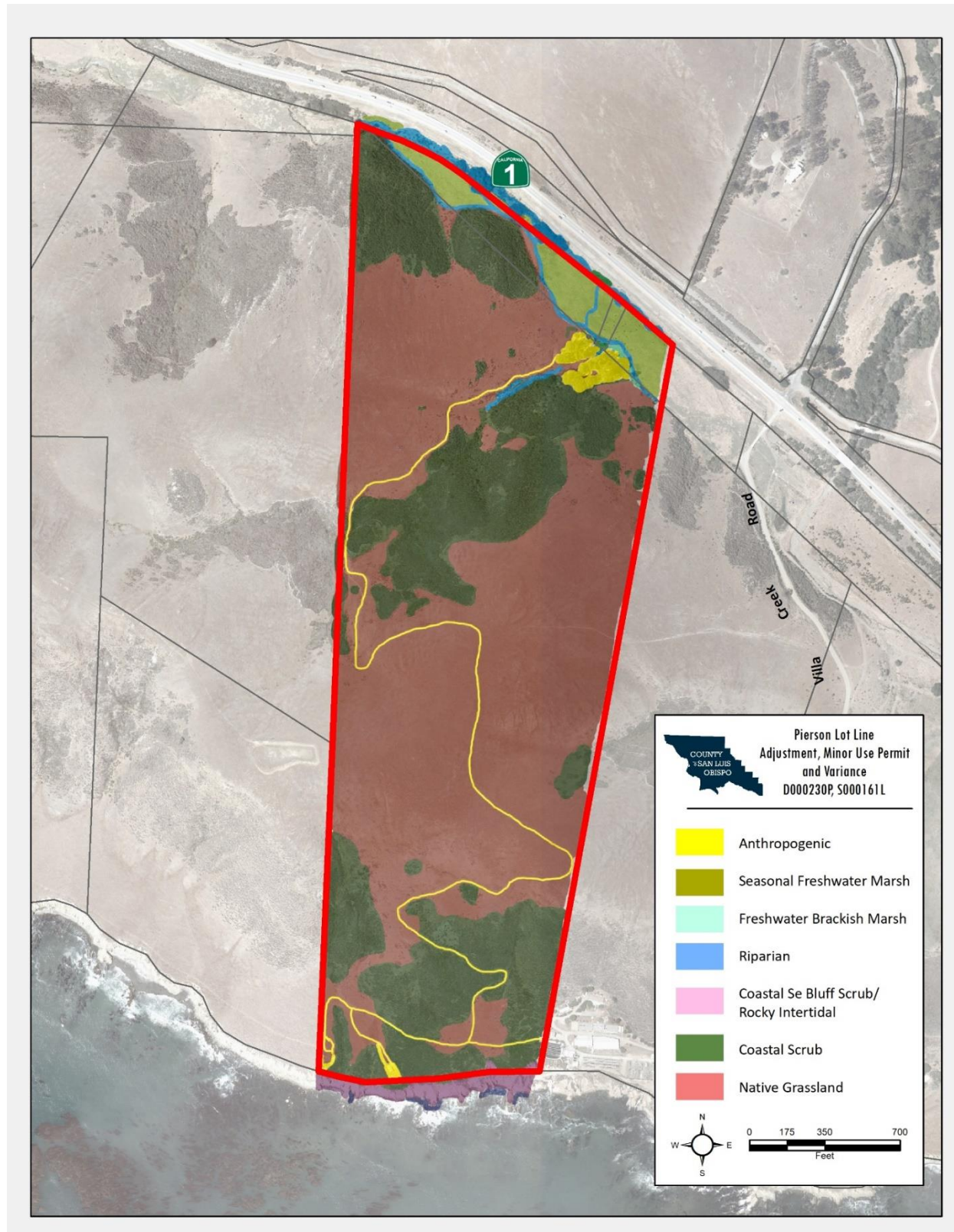
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Table 7 -- Biotic Communities of the Project Site		
Biotic Community	Acres	Percent
California native grassland	70.0	58%
Coastal scrub and rock outcrops	37.0	31%
Freshwater and brackish water marshlands	7.4	6%
Coastal seabluff scrub	2.5	2%
Riparian	2.3	2%
Anthropogenic communities	1.0	1%
Rocky shore	< 0.1	0.1%
Seasonal freshwater marsh	<0.1	0.1%
Total:	120.2	100%

The most common biotic community on the study site is California native grassland, which covers about 70 acres or 58% of the study site. The next most common community is coastal scrub, which covers about 37 acres or 31 % of the site. Seabluff scrub covers about 2.5 acres or a little over 2% of the site. Combined the grasslands and coastal scrub communities cover about 109.5 acres or a little over 91 % of the study site. The freshwater and brackish water marshlands dominate the northern portion of the site. These marshlands of the Ellysly Creek floodplain and occupy 7.4 acres or 6% of the study site. Riparian areas along the creeks and drainages, including the patches of arroyo willows, over about 2.3 acres or about 2% of the site, and the blue gum stand covers about 1.0 acre or less than 1 % of the site. Each of these communities and habitats are discussed in more detail below.

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Figure 27 – Biotic Communities of the Project Site



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1. Rocky Shore, Intertidal, and Near Shore Waters

The ocean side of the bluff is a rocky beach with rock outcrops occupied almost entirely by subtidal and intertidal communities. While the plants and invertebrate animals of the rocky shore and intertidal zone were not examined in detail, some of the common plants known to occur in this zone on and around the study site include *Phyllospadix* spp. (surf grass), the only flowering plant, and various species of green, brown, and red algae such as coralline algae, feather boa kelp, sea lettuce, bull kelp, and rockweed.

Wildlife

Invertebrates in the rocky shore and intertidal habitat include various species of limpets, snails, chitins, sea stars, sea urchins, anemones, crabs, and barnacles. The rocky shore and intertidal habitat also provides important foraging and resting sites for migratory and resident shorebirds, other water birds, and marine mammals. The rich invertebrate life and abundance of algae provides the basis for a rich food web.

Other species of shore and sea birds are expected to occasionally occur on the site or in near shore waters. In addition, San Luis Obispo County represents the southern limit of the Black Oyster Catcher's breeding range on the mainland coast.

Sea otters were observed diving and foraging near the rocky shore and in shallow waters among the bull kelp. Harbor seals were observed in the open waters off the site and traditionally use the same haul out sites on a regular basis.

2. Coastal Seabluff Scrub

On the project site the coastal seabluff scrub communities occur on the rocky headlands and sea cliffs that border the coastal terrace grasslands and cover about 2.5 acres of the project site. The vegetation varies along the bluff both in plant density and composition. On the rocky exposed areas immediately above the high tide, the community has low species diversity and is rather discontinuous in coverage and structure. On the top of the bluff at the edge of the marine terrace, the shrub cover is very dense in places, and the species diversity is higher.

There are two highly eroded ravines that occur along the sea bluffs. These ravines have been used as a place to dump various types of debris like fencing and lumber in the past. Because of the highly disturbed nature of these areas, several weeds have become dominant in places including *Foeniculum vulgare* (sweet fennel), *Conium maculatum* (poison hemlock), *Silybum marianum* (milk thistle), and *Hirschfeldia incana* (perennial mustard). No sensitive plant species were observed in coastal seabluff scrub vegetation on the project site.

Wildlife

The seabluff scrub provides foraging and nesting habitats for a diversity of vertebrates including birds, mammals, reptiles and amphibians. There is also a diversity of insects and other invertebrates that use the site and are prey species. The grassland habitats are contiguous with the coastal seabluff scrub and moist ravines. Many wildlife species graze or hunt in the grasslands and seek shelter and perch sites in the adjacent shrubs along the seabluffs. Rodents such as deer mice, voles, gophers, and ground squirrels, as well as larger species such as mule deer, are common herbivores that use this area. A variety of predators prey upon the invertebrate and rodent populations. These predators include snakes and lizards, bobcats, coyotes, long-tailed weasels, badgers, and birds of prey.

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The coastal bluff area is of special concern because it is adjacent to areas used by two special status marine mammals. A haul out and pupping area used by at least 27 harbor seals (*Phoca vitulina*) was found about 200 to 250 meters north of the proposed building site. While this haul out area is not on the Pierson property or visible from the home site, it needs to be considered as a sensitive resource. Two southern sea otters (*Enhydra lutris*) were also observed swimming and feeding in the kelp beds directly off the coastal bluff.

Bobcat tracks were also found in an eroded gully approximately thirty yards from the proposed building site. The presence of brush rabbits, and other rodents in the immediate area is evidence that this is a site used by bobcats for hunting and movement between the grassland and nearby scrub habitats. Mule deer, raccoons, coyotes, brush rabbits and a variety of rodents and birds use the ravines and sea bluff area on the site.

3. Coastal Scrub

On the study site, coastal scrub communities cover about 37 acres and are generally found on steep slopes or areas with shallow, rocky soils that retain little moisture. In the southern portion of the site, just inland from (north of) the seabluff scrub and marine terrace, the steep, south (ocean) facing hillsides have mostly a dense cover of coastal scrub vegetation. However, there are small stands of grassland in the coastal scrub stands where the shrublands and grasslands overlap. In these areas, the shrubs form an open coastal scrub with a well-developed grassland understory between the shrubs. There are also some rock outcrops in the coastal scrub that have a sparse cover of shrubs and herbs. In the northern portion of the site, dense coastal scrub covers the steep slopes above the seasonal creek that traverses the site and on the rocky knolls above the Ellyly Creek wetland areas.

There are several small rock outcrops scattered in the patches of coastal scrub. These areas have lichen-covered rocks and are sparsely vegetated by various shrubs and herbs common to the coastal scrub in areas where soil pockets have developed in the outcrops. There are also small rock outcrops scattered in the grassland areas. Most of these rock outcrops have typical coastal scrub species growing around them.

The rock outcrops that are scattered in the grassland areas in the northern portion of the site and on the north-facing slopes are more mesic and support a greater diversity of shrubs. In addition to those listed above, more mesic species like *Ribes speciosum* (Fuchsia flowered gooseberry), *Heteromeles arbutifolia* (toyon), and *Rhamnus californica* (California coffeeberry), and *Sambucus mexicana* (elderberry) are also present on some rock outcrops and are scattered in the coastal scrub.

No sensitive plant species were observed in coastal scrub vegetation on the project site.

Wildlife

Coastal scrub vegetation, with its dense shrub canopy and high diversity of plant species, provides excellent cover, nesting sites, and foraging opportunities for a wide variety of amphibians, reptiles, birds, mammals, and other animals. Some shrubs provide abundant nectar resources for insects and hummingbirds, and dense shrubs provide protection for small mammals and birds. Barren soil in patches among the shrubs indicates both rodent consumption of small herbs and grasses as well as an allelopathic effect of foliage and leaf litter. Insects rising from flowers and vegetative material in coastal scrub provide excellent food for insectivorous birds.

The wildlife species found in coastal scrub are highly variable from patch to patch because patches overlap and integrate within other habitat types. Since many of these patches occur in a mosaic of habitat types, species that are characteristic of other associated habitats such as grasslands or wetlands may be found

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utilizing the coastal scrub. Several species of raptors hunt and migrate across the hillsides and ridgelines. Many wildlife species venture out from the protective cover of the scrub habitat and local stands of willow and eucalyptus trees into more open grasslands and wetlands for short periods.

A comprehensive bird list for the coastal scrub, grassland, woodland and wetland habitats would be much more extensive when taking into account migrants, winter visitors, and summer breeders. This list would likely exceed one hundred species.

4. Coastal Valley and California Native Grasslands

On the study site, grasslands cover about 58% of the 120-acre site and occur mostly on the marine terrace and the rolling to steep hillsides with fine textured, clay rich soils. They integrate with coastal seabluft scrub on marine terrace, with the coastal scrub on the steep interior slopes, and with marshes and riparian communities in aquatic and semi-aquatic areas along drainages, creeks, and marshlands. Many of the grassland species occur as part of the herbaceous understory of the other communities such as the coastal scrub. The grasslands on the study site are California native grasslands, except for some of the disturbed areas such as along the roads, cattle trails, and around the buildings. These areas would be more like the southern coastal grasslands dominated mostly by introduced annual grasses and forbs.

Although the study site has been used as rangeland, the grazing pressure has apparently been well managed and has not been intense. As a result, these grasslands are not only dominated for the most part by California native grasses but also have a large diversity of native forbs, including bulbous plants, mixed with the native grasses. The introduced annuals seem to only dominate small pockets where disturbance has been greater such as along roads, cattle trails, and where cattle congregate for longer periods and trample the site. The common species found in the grasslands on site are listed below. Like the coastal scrub, species dominance varies significantly from place to place in the grassland. For the most part the two species of *Nassella* or needlegrasses are the dominants; however, there are small patches where other native grasses like *Leymus condensatus* (giant wild-rye) or *Elymus glaucus* (blue wild-rye) are the dominants.

Areas of native grasslands in the northern portion of the site, just inland from the Ellyslly Creek marshlands, are north-facing and obviously moister than the grasslands on the south facing slopes near the ocean. These areas not only have a greater diversity of the native grasses but also have scattered patches of *Juncus patens* (creeping rush). The presence of the creeping rush indicates either a shallow, accessible water table or areas within the grassland that hold water longer than other areas.

Wildlife

The coastal grasslands provide a foraging and nesting habitat for a wide range of vertebrates including birds, mammals, reptiles and amphibians. For example, several wildlife species forage in grasslands, e.g., western meadowlark, western kingbirds, sparrows, and finches. Raptors such as the golden eagles, white-tailed kite, northern harrier, red-tailed hawk, American kestrel and common barn owl and burrowing owls hunt in grassland areas. Raptors may also use the adjacent coastal scrub as sites to observe prey in the grasslands. Some amphibians and reptiles such as pacific chorus frogs, Western fence lizard, Southern alligator lizard, Common kingsnake and Gopher snake also hunt in the grasslands.

California ground squirrel, Botta's gopher, western harvest mouse and California voles feed on the grassland plants, and coyote and long-tailed weasel prey upon them. Ground squirrels burrows open up a subterranean habitat. Mule deer forage in the grasslands while bobcats and mountain lions prey upon the deer, jack rabbits, cottontail rabbits, and brush rabbits.

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There is also a diversity of insects and other invertebrates in the grassland, many of which are prey species for rodents and birds. The grassland habitats are contiguous with the coastal scrub and/or wetlands on the study site. As a result, many wildlife species graze or hunt in the grasslands and seek shelter and perch sites in the adjacent shrubs and trees. Rodents such as deer mice, voles, gophers, and ground squirrels, as well as larger species such as mule deer, are common herbivores of the grassland. A variety predators prey upon the rodent population including snakes, lizards, bobcats, coyotes, long-tailed weasels, badgers, and birds of prey.

A variety of wildlife species are expected to occur on the project site.

5. Riparian Communities

Riparian vegetation comprises a relatively small percentage (2%) of the vegetation cover of the project site but is of major importance as a habitat. It is best developed along Ellyslly Creek where the riparian communities occur in a narrow band along the creek paralleling California Highway 1. The riparian vegetation is dominated for the most part by scattered patches of *Salix lasiolepis* (arroyo willow). In areas where the willow canopy is dense, there is little herbaceous undergrowth. Where it is more open and in areas between the willow patches, several coastal scrub species occur along the creek banks such as *Toxicodendron diversilobum* (poison-oak), *Mimulus aurantiacus* (bush monkeyflower), *Artemisia californica* (California sagebrush), and *Baccharis pilularis* (coyote bush).

The Ellyslly Creek channel and floodplain are dynamic and ever-changing environments. During the rainy season, water from the creek freely overflows into the adjacent broad, flat floodplain that dominates the northern 7.4 acres of the site. This area consists of a braided floodplain with several small channels that eventually constrict to one main channel east of the study site. The higher areas among the channels are waterlogged and support freshwater marsh; however, present and past tidal action has carried enough salt into this floodplain to make portions of it brackish enough to support some halophytes and salt tolerant freshwater marsh species such as *Distichlis spicata* (salt grass), which is common in this marshland..

There is also a small riparian zone along the unnamed tributary that traverses the northern part of the study site. This tributary flows onto the site from the west, passes under the dirt road through a culvert, and flows in a southwest to northeast direction. This small creek flows through the blue gum stand and ends at the Ellyslly Creek floodplain and marshland near the northeast corner of the site. This seasonal stream does not support riparian trees; however, there is a significant stand of *Salix lasiolepis* (arroyo willows) along its margin in a side swale that is part of the unnamed creek's watershed. In general, this small seasonal creek is lined by many of the shrubs common to the coastal scrub community; however, there are some shrubs that are mostly found in moist areas, such as riparian areas, that are common along the creek. Where the water is very slow flowing or where there is a small, broad flat floodplain along the creek channel, several aquatic and semi-aquatic species line the creek banks or occur in the creek channel itself.

Wildlife

Riparian and freshwater marshes support a diversity of wildlife species. These are complex habitats that provide water and moist areas in an otherwise relatively dry hillside area. The variety of vertical habitats in the trees, shrubs and herbs provide nesting and foraging sites for a wide variety of vertebrate species. These habitats are critical for many wildlife species because they provide a rather permanent source of water and moist microhabitats. The enormous species diversity along the creeks and floodplains is, in part, a characteristic of structure and characteristics of the riparian habitats, but is also a function of their close proximity to the blue gum trees and the coastal scrub and grassland areas. All of these habitats occur along the edge of the unnamed tributaries and the Ellyslly Creek floodplain, which augments the species diversity

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because the wildlife would tend to use all of the various habitats. Some wildlife use the shrubs and trees to perch on while looking for prey. Others use the dense shrubs for cover but venture out into the adjacent wetlands to hunt or forage.

A variety of wildlife species are expected to occur in the riparian and adjacent freshwater marsh areas on the site.

6. Freshwater and Brackish Water Marsh

The northern 7.4 acres of the study site is covered by an extensive freshwater and brackish water marshland that has developed in the broad floodplain of Ellyslly Creek. This area is flooded during the winter and spring rainy season and remains inundated or waterlogged for prolonged periods of time during the growing season. Several small, interconnecting channels run through the floodplain forming a braided marshland with small ponds along some of the channels. The entire area, except for the open water and channel bottoms, is densely vegetated with aquatic and semi-aquatic herbaceous plants.

The floodplain of the small tributary that enters the marshland at the Blue gum grove also supports a freshwater marsh. Where the small creek enters the broad, flat area of the canyon mouth under the blue gums, it fans out forming a marshland with several small channels similar to that along the Ellyslly Creek floodplain. Many of the same species grow in this marshland, but there is also a much greater weed component because the cattle use the site heavily.

Wildlife

The complex of interconnected and overlapping riparian and marshland habitats on the site support a very rich diversity of terrestrial and aquatic animal life for all the reasons discussed under riparian communities.

7. Seasonal Freshwater Wetlands

Some freshwater marsh communities are found in seasonally wet areas that often have access to a shallow water table. While these may have standing water for short periods of time during the rainy season, they are often completely dry in the summer and fall. Thus, plants that occur in these areas must be adapted to growing in standing water and/or saturated soils during the wet season and in very dry areas during the dry seasons.

Portions of small marsh areas along the small tributary that traverses the northern portion of the site could be considered seasonal marshes as the stream flows only during the wet season and completely dries out during the summer and fall in normal years. Because it does have flowing water, we included these areas in the riparian discussion.

There is one small seasonal marsh that occurs at the headwaters of a small tributary near the center of the eastern boundary of the study site, which we discussed briefly with the riparian communities. This tributary flows in a west to east direction and eventually joins with Villa Creek just inland from China Harbor. There is a swale that drains into this tributary, but the headlands of this tributary extends only a short distance onto the subject site. The headlands are comprised of an eroded ravine and seep area that supports small patches of aquatic and semi-aquatic species.

Upslope from the ravine the dominant vegetation cover is grassland; however, scattered in the grassland are species typical of seasonally moist areas such as spreading rush and creeping wild-rye. A red-legged frog was found in the grassland area just upslope from this ravine indicating that these frogs use this small drainage and ravine, which connects, to Villa Creek down slope.

No sensitive plants were observed in the freshwater marsh on site.

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Wildlife

The wildlife listed for the freshwater and brackish marshlands would also be expected to visit this seasonal marsh, along with the wildlife species found in the adjacent grasslands and coastal scrub areas. This area would provide a source of water during the wet season; however, because this area is so small, the number of wildlife visits would be considerably less than the other wetlands on the study site.

8. Anthropogenic Communities

Communities dominated by plants introduced by humans and established or maintained by human disturbance are anthropogenic communities. Some of these are entirely artificial communities such as cultivated row-crops, lawns, vineyards, plantations, wind breaks, etc. Others are assemblages of weedy species that have invaded disturbed areas, sometimes in spite of human efforts to control them. Weed-dominated communities often represent the early stages of natural succession. In the absence of disturbance, many weedy plants do not persist but are gradually replaced by native vegetation. On the project site there are two examples of anthropogenic communities; ruderal (disturbed sites) and the blue gum stand (plantations).

Ruderal Communities. Ruderal plant communities are characteristic of disturbed areas such as roadsides, trails, etc. that are influenced to some degree by human activities, including grazing livestock. Roadsides are generally areas of regular disturbance patterns. Every day cars drive past creating a disturbance and adding pollutants to the air and pavement. Rainfall and runoff transfer many of the pollutants to the road shoulder where they leach into the soil or splash onto the plants. Periodically roads are maintained which adds its own form of disturbance.

There is a surprisingly small amount of ruderal vegetation on the study site because little disturbance has occurred on the site. Ruderal vegetation occurs on the marine terrace along the roads, around the buildings, and disturbance areas associated heavy livestock use. A narrow band of ruderal plants sometimes occur along the dirt road that traverses the site, along the cattle trails in the grassland and coastal scrub, and in other small, relatively isolated areas of heavy cattle disturbances.

Most of the plants that colonize disturbed sites are introduced, weeds; however, some native species. also have some weedy tendencies too e.g., *Baccharis pilularis* (coyote bush), *Eremocarpus setigerus* (turkey mullein), and *Heterotheca grandiflora* (telegraph weed) all tolerate and grow in disturbed areas. Many members of the native flora that could grow on roadsides if given the opportunity, but fail to do so because they lack efficient seed dispersal mechanisms.

Plantation communities include windbreaks, and ornamental plantings comprised of mostly non-native trees such as *Eucalyptus* spp. as well as other exotic species that have been planted or have escaped from cultivation and become part of the local vegetation. Native species may also be a component of these human-influenced communities. On the study site, blue gums have been planted in and along the floodplain of the small tributary that traverses the site where it enters the large Ellysly Creek Marsh. No other plantation type communities occur on the site.

The blue gums have been planted in and around the wetlands that formed where the small tributary fans out forming a relatively flat floodplain that adjoins the large marshland in the Ellysly Creek floodplain. Blue gum trees are adapted to grow in relatively wet areas and are often found in riparian zones or around marshes. Many of the large trees in the marshland, however, have fallen over and been uprooted by the combination of waterlogged soils and high winds. Uprooted stumps and branches remain in this marsh area (Photo 11). On the sides of the marsh, in the upland areas, a small patch of blue gum saplings are becoming established showing the success of blue gum in spreading once they are established on a site.

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Blue gum trees have been shown to have an impact on the available water in the riparian and marshland areas because they take up large quantities of water and transpire it out their leaves. This high water uptake has been shown to reduce the water available to the streams and wetlands in California, including local areas such as Black Lake Canyon in the Nipomo Mesa.

Wildlife

Blue gum forests can offer significant wildlife habitat. These trees provide rich foraging, roosting and nesting sites for birds. A large variety of bird species would be expected to occur in these wooded locations at various times of the year. Possible nesting and/or hunting raptors that might use the site include Red-tailed hawks, Cooper's hawks, Barn owls, Great horned owls, and Sharp-shinned hawks (*Accipiter stratus*), a California State Species of Concern. Hummingbirds were observed foraging for nectar in the trees. Dead trees or limbs in the forest may be important to woodpeckers and a variety of cavities nesting birds. At least two species of woodpeckers were observed using the trees. Numerous Monarch butterflies were also observed flying amidst the blue gum canopy as they fed on the abundant flower nectar from the trees. These trees might be used as a Monarch butterfly winter roost site but further observations will be required.

Environmentally Sensitive Habitats and Wetlands. The California Fish and Game Natural Diversity Data Base list the following habitats found on the study site as sensitive.

Riparian Habitats

The area occupied by riparian communities in California has decreased over 90 percent in the past 100 years. There has been a similar decrease in area occupied by freshwater and brackish marshes. With the loss of these wetland communities has come a comparable decrease in the habitat available for various types of wildlife, particularly resident and migratory birds.

Much of the decrease in freshwater wetlands has been incremental. Individually these changes are minor. Collectively they represent a serious loss of wetland habitats. Freshwater marshes, riparian and other wetland areas are important wildlife habitats. They are particularly important to migratory birds of the Pacific Flyway. The piecemeal draining of small marsh areas and removal of riparian woodlands throughout California and the massive draining of marshlands of the Central Valley have reduced the overall area covered by marshes by over 90 percent. Loss of these wetlands in California makes the protection and management of those in central coast even more significant.

The original riparian forests in California covered several million acres. Today they are measured in thousands. Most of California's riparian ecosystems have been destroyed or degraded as a result of human activities. Before 1960 few people showed any concern for the demise of California's Riparian Woodlands and very little biological data was collected. Today many scientists and governmental agencies are expressing concern that has led to several symposia dealing with the ecology and conservation of riparian communities in California.

Coastal Brackish Marsh

The northern 7.4 acres of the study site is covered by an extensive freshwater and brackish water marshland that has developed in the broad floodplain of Ellysy Creek. Coastal brackish marsh is the type of wetland that occurs where freshwater from the streams mix with salt water forming an ecotone and mosaic of freshwater and saltwater marshes.

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Coastal and Valley Freshwater Marsh

As discussed above, coastal valley and freshwater marsh habitats are found in areas along some of the creeks and where ponds form in depressions.

Native Grasslands

California native grasslands (valley needlegrass; purple needlegrass) cover over one-half of the project site. California native grasslands once formed the dominant vegetation on over 17 million acres, or 17%, of California land area prior to Spanish settlement (Biswell 1956; Huenneke 1989). Before the late 1800s native grasslands and related oak woodland communities with grassland understory covered about 27% of California. Only about 10,000 acres of California native grassland remains intact within California (Barry 1972), and less than 1 % has any protected status (Keeley 1990). The historical distribution of the California native grassland was very similar to that of the state's present-day grasslands. While large areas of grasslands are present in California, these exist mainly in variously modified forms, and large areas are now in cultivation. A large portion of the grasslands of California have been highly modified from the original native grasslands, often with few of the original native grasses and forbs present.

As a result of the land conversion to agriculture, new grazing pressures, and competition with introduced annual grasses, California native grasslands have been reduced to a few small scattered relict stands up and down the state. These stands are generally in areas with light grazing histories or often occur under somewhat harsh soil conditions in which aliens are not as competitive. For example, many relict stands occur on rocky hillsides or on unusual soil types such as serpentinite.

Many of the stands in California have been inventoried and mapped by the California Department of Parks and Recreation (Barry, 1972). Efforts to protect the existing stands of native grasslands have been strongly encouraged and should continue. These relict stands represent what is left of an important part of California's heritage and should be conserved and protected. The California native grassland stands that occur on the study site are widespread and should be preserved as much as possible in undeveloped open space.

Special Status Plant and Wildlife Species

For the purpose of this investigation, 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 (FESA); those listed or proposed for listing as Rare, Threatened, or Endangered by the CDFG under the California Endangered Species Act (CESA); animals designated as "Species of Special Concern," "Fully Protected," or "Watch List" by the CDFG; and plants with California Rare Plant Ranks 1, 2, 3 and 4 maintained by the California Department of Fish and Game with assistance from the California Native Plant Society. The California Rare Plant Rank definitions include the following:

- 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);

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- 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.

The Federal Endangered Species Act (ESA) of 1973 (50 CFR 17) provides legal protection for plant and animal taxa that are in danger of extinction, and classified as either threatened or endangered under the ESA. The ESA requires Federal agencies to make a finding on all Federal actions, including the approval by an agency of a public or private action, such as the issuance of a Corps permit under Section 404 of the Clean Water Act, as to the potential to jeopardize the continued existence of any listed species potentially impacted by the action. Section 9 of the ESA prohibits the "take" of any member of a species listed as threatened or endangered.

A search was conducted of the California Native Plant Society's *Inventory of Rare and Endangered Vascular Plants of California* data base and the July 2000 California Department of Fish and Game *Natural Diversity Database (CNDDDB)* for all rare or endangered plant species found on or near the site. The rare and endangered plants listed below have either been revealed in the data base search, have been observed, or have been reported from the areas on or near the site.

Based on information obtained through the CNDDDB search (July 2000) and review of existing literature, a special-status plant and wildlife species list was compiled that includes species that have the potential to occur in the vicinity of the areas proposed for development. The current list of special status wildlife species is based on the January 2001 list available on the California Department of Fish and Game web site and was cross checked against the list of species potentially on site. The local geographic distribution of each species, and the size and distribution of potentially suitable habitat, was used to determine which special status species would most likely occur on site.

Since the 1970's the California Native Plant Society (CNPS), an organization of professional and lay botanists that is dedicated to the preservation of California's native flora, has been involved in determining which plants in California are rare and endangered. The society has published five editions of a book entitled *Inventory of Rare and Endangered Vascular Plants of California*. The fifth edition of the CNPS *Inventory* (Skinner and Pavlik, 1994) lists plants in four categories: List 1-Plants of Highest Priority, with two sublists: 1 A-Plants Presumed Extinct in California and 1 B-Plants Rare and Endangered in California and Elsewhere; List 2-Plants Rare or Endangered in California, but More Common Elsewhere; List 3-Plants about which More Information is Needed; and List 4-Plants of Limited Distribution (A Watch List). Additionally each plant listed is given a R-E-D Code (*Rarity*, *Endangerment*, and *Distribution*) with numbers ranging from 1-3 in each category. For each of the values a higher number is an indication of greater sensitivity:

These categories are summarized below and on the next page:

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Rare or Endangered Plant Species on the Project Site

The rare plant species listed in the BRA. Which includes a brief discussion of the rare plants known to occur in the Cayucos area and around the subject site. However, many of the rare plants on the list would not be expected on the study site because they are serpentinite endemics. While many of these are common to serpentinite soils east and north of the study site, they would not be expected on the study site. The parent material on the subject site does not have any serpentinite, and none was noted during our field surveys.

One sensitive plant species, *Calystegia subacaulis* ssp. *episcopalis* (San Luis County morning glory) was found in California native grassland habitats on the project site. This species is scattered over the grassland areas and is found in many sites including the proposed building site on the hillside. San Luis County morning glory occurs scattered in grassland sites in association with a variety of native and non-native grasses and forbs.

San Luis County Morning Glory is a perennial herb with trailing or sometimes weakly twining stems. It has alternate, broadly triangular leaves that are minutely hairy. The cream-colored, funnel-shaped flowers are produced from April to June. After the flowers wither the plant develops small, dry capsules with dark seeds. By late summer the aboveground parts of the plants are completely dry and only seeds and an underground rootstock persist through the dry season. The plant is difficult to identify in the dry season because the dry parts shatter.

San Luis County Morning Glory is at present known only from San Luis Obispo and northern Santa Barbara counties. In San Luis Obispo County it ranges from the Hearst Ranch in the northwestern corner of the county south to the vicinity of San Luis Obispo where it usually occurs in grassy sites with clay-rich soils often in association with serpentinite parent material. These plants flower in the spring and early summer.

This species occurs scattered throughout much of the grassland areas on the study site, including the second building envelop on the hillside.

Special Status Animal Species

Table 8 summarizes the documented presence of the special status species that have been observed on the project site, observed on nearby areas, or expected to use the project site seasonally but not observed during the survey period. The biologists have also included species known to occur in the Cayucos area but have not been documented to be close to the site.

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Table 8 -- Special Status Wildlife Species			
Occurance*	Scientific Name	Common Name	Status**
E	<i>Botaurus lentiginosus</i>	American bittern	MNBMC
E	<i>Riparia riparia</i>	Bank swallow	ST
E	<i>Athene cunicularia</i>	Burrowing owl	FSC/CSC
E	<i>Lateralus jamaicensis</i>	California black rail	FSC/ST
D	<i>Pelecanus occidentalis</i>	California brown pelican	FE/SE
E	<i>Sterna antillarum</i>	California least tern	FE/SE
D	<i>Rana aurora</i>	California Hed-leqqed frog	FT
E	<i>Branta canadensis (wintering)</i>	Canada goose	FT
R	<i>Oncorhynchus mykiss</i>	So. California steelhead trout	FT/CSC
E	<i>Taricha torosa</i>	Coast range newt	CSC
D	<i>Gavia immer</i>	Common loon	CSC/MNBMC
E	<i>Accipiter cooperi</i>	Cooper's hawk	FEIST
D	<i>Phalacrocorax auritus</i>	Double-crested cormorant	CSC
R	<i>Aquila chrysaetos</i>	Golden eagle	CSC
D	<i>Ardes herodias</i>	Great blue heron	CDFSC
?	<i>Phrynosoma corona tum</i>	Horned lizard	FSC/CSC
N	<i>Anniel/a pulchra</i>	Legless lizard	FSC/CSC
D	<i>Lanius ludovicianus</i>	Loggerhead shrike	FSC/CSC
E	<i>Brachyramphus marmoratus</i>	Marbled murrelet	FT/SE
D	<i>Neotoma fuscipes (luciana)</i>	Monterey dusky-footed wood rat	FSC/CSC
D	<i>Circus cyaneus</i>	Northern harrier	CSC
E	<i>Falco peregrinus</i>	Peregrine falcon	FE/SE
D	<i>Accipiter striatus</i>	Sharp-shinned hawk	CSC
?	<i>Euphilotes enoptes smithi</i>	Smith's blue butterfly	FE
D	<i>Enhydra tuttisi</i>	Southern sea otter	FT
D	<i>Clemmys marmorata pallida</i>	Southwestern pond turtle	FSC/CSC
R	<i>Eucyclogobius newberryi</i>	Tidewater goby	FE/CSC
E	<i>Thamnophis hammondi</i>	Two-striped garter snake	CSC
N	<i>Charadrius alexandrinus</i>	Western snowy plover	FT/CSC
E	<i>Sceoniopus hammondi</i>	Western spadefoot toad	FSC/CSC

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D	<i>Elanus caeruleus</i>	White-tailed kite	*
E	<i>Empidonax traillii</i>	Willow flycatcher	SE
<p>*KEY</p> <p>D = Documented and observed on the site</p> <p>E = Not directly observed on the site but expected to use the site seasonally</p> <p>R = Reported or Observed in areas adjacent to the site</p> <p>N = Not observed and not expected on the site</p> <p>**KEY</p> <p>SE: State-listed endangered</p> <p>FE: Federal-listed endangered</p> <p>ST: State-listed threatened</p> <p>FT: State-listed threatened</p> <p>CSC: California State Species of Special Concern</p> <p>FSC: Federal Special Concern species</p> <p>CDFSC: California Department of Forestry Species of Special Concern</p> <p>MNBMC: Fish and Wildlife, Migratory non-game bird of management concern</p> <p>* Species that are rare, restricted in distribution, declining throughout their range and/or closely associated with a declining habitat</p>			

Pinnipeds. Harbor seals are a near shore species that usually occupy rocky shelves, intertidal rocks, and isolated beaches. They haul out of the water to rest for several hours a day saving valuable energy needed for swimming the hunting activities. The seals haul out during low tide when the rocks are exposed and go back to the open ocean when the high tide washes them off the rocks again. Water activities in this area during low tide, such as kayaking, swimming, fishing, etc., will disturb the seals.

A haul out and pupping area used by at least 27 harbor seals (*Phoca vitulina*) was found about 200 to 250 meters north of the proposed building site. In February 2001, nineteen harbor seals (*Phoca vitulina*) were hauled out on the exposed rocks at low tide about 150 to 200 meters north of the old kelp fisherman's shack. On May 13, 2001 Michele Roest found 27 harbor seals and 4 pups hauled out in this area at low tide. The area is calm and isolated which makes it a good pupping area and a small haul-out site. Thirty-one seals do not qualify as a major hauling site; however, there may be more seals there seasonally. While this haul out area is not on the project site or visible from the home site on Parcel 1, it is considered as a sensitive resource.

As with all marine mammals, harbor seals are fully protected by the federal Marine Mammal Protection Act of 1973, which prohibits the killing or harassment of marine mammals. However, they are not listed as a rare or endangered species. In 1990, the estimated population of harbor seals in California was about 40,000, and the population seems to be stable. Many historical hauling sites have been destroyed or

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abandoned due to habitat destruction or human disturbance; however, new sites are appearing. Harbor seal populations are not considered threatened, and minor disturbances are not usually considered a concern. Significant harassments are prosecuted.

Southern sea otter. The Southern sea otter (*Enhydra lutris*) is listed as a federally threatened species. Two southern sea otters were observed swimming and feeding in the kelp beds directly off the coastal bluff.

California central coast steel head. Steelhead occur in creeks along the central coast and have been documented by the California Department of Fish and Game in Villa Creek. Ellyslly Creek joins Villa Creek about 200 meters east of the study site; so most of the species in Villa Creek would also be expected in the stretch of Ellyslly Creek on the study site. Steelhead hatch in fresh water, migrate down stream, mature in the sea, and return to their natal stream to reproduce. Ellyslly Creek, like Villa Creek, most likely provides wetland access for juvenile steel head as a site to seek refuge from predators and to forage. Many small fish that could be juvenile steel head were observed in Ellyslly Creek but could not be positively identified without more detailed studies.

Tidewater gobies have been found in Villa Creek by the California Department of Fish and Game. They are commonly found along the coast of California in coastal lagoons, brackish bays near the mouths of freshwater streams, and in coastal streams immediately next to lagoons or the ocean. As mentioned above, Ellyslly Creek joins Villa Creek about 200 meters east of the study site; so most of the species in Villa Creek would also be expected in the stretch of Ellyslly Creek on the study site. Many small fish resembling Tidewater gobies were observed in Ellyslly Creek but could not be positively identified without more detailed studies.

An earlier California Department of Fish and Game study confirmed the presence of the Central California coast steel head trout (*Oncorhynchus mykiss gairneri*), the Tidewater goby (*Eucyclogobius newberri*), and the Threespine stickleback (*Gasterosteus aculeatus*) in Villa Creek just to the southeast of the study site but connected to it by Ellyslly Creek. The former two are sensitive species that have special protected status. While we expect that Tidewater gobies are present on the study site, and steelhead trout are possible, we cannot state with certainty that they occur without doing more detailed studies of the creek system.

Red-legged frogs are designated as "threatened" by the federal government. This frog has historically been found in riparian habitats throughout the coastal areas and in some inland areas of San Luis Obispo County. Undoubtedly red-legged frogs were widespread throughout San Luis Obispo County and were probably found in most streams with permanent pools, as well as permanent ponds, lakes, and marshes.

Red-legged frogs are found in several habitats on and near the study site in San Luis Obispo County. The biologists found red-legged frogs using channel of the unnamed tributary upslope from the Ellyslly Creek floodplain, and we were able to make a positive identification. They also found one red-legged frog on the grassy slope above the small tributary that occurs near the eastern boundary of the study site. This small tributary flows eastward and joins Villa Creek, a creek also known to support red-legged frogs, about 200 meters east of the study site. The biologists also noted frogs in the Ellyslly Creek ponds that we believe were red-legged frogs but could not make a positive identification. The Ellyslly Creek and its tributaries on site appear to provide ideal habitat for the frogs and no bullfrogs or other predators or competitors of red-legged frogs were found on the site.

Southwestern pond turtles California is home to only one species of turtle, though other species have been introduced and have done quite well. California's western pond turtle (*Clemmys marmorata*) is divided into two subspecies, a northern form and a southern form *Clemmys marmorata pal/ida* occurs in San Luis Obispo County. This is a largely aquatic turtle that utilize the terrestrial environment to over winter and to lay eggs.

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Habitat requirements have been somewhat difficult to examine because they are relative generalists. Three Southwestern pond turtles (*Clemmys marmorata pallida*) were observed surfacing in a wider and deeper portion of Ellysly Creek adjacent to a coastal scrub covered slope. This small pond is approximately seventy-five yards north of the stand of blue gum trees and west of Highway 1. Rocks along the bank of the stream are important sunning locations. Pond turtles may nest and aestivate in upland soils at considerable distance from the stream.

Coast range newts breed between the months of December and May in streams and permanent standing water in San Luis Obispo County. During non-breeding periods, individuals are found beneath leaf or other vegetative litter. Occurrence of this species in a particular habitat can only be determined through directed census during non-breeding seasons (i.e.: pit or can traps). No newts were observed on the site; however, Ellysly Creek and the adjoining wetland are an ideal habitat for the newts, where it is safe to assume newts breed there. During the non-breeding months, newts are found under leaves or other vegetation.

Western spadefoot toad's geographic range extends through San Luis Obispo County. This toad is found in a diversity of habitats around permanent or seasonal bodies of water. Aestivating toads would most likely be found close to the creeks, drainages, or marshlands on site, although one cannot rule out their occurrence almost anywhere on the study site. While none were observed on site, appropriate habitats for the spadefoot toad are found on the study site.

Coast horned lizards is a species that is found in California from the tip of Baja northward to the Sacramento Valley. This species has been found in various places in the county, including various localities around Morro Bay and Cayucos.

Within its range it can be found in a variety of habitats. Along the coast of California this lizard is often associated with shrublands and grasslands. In addition to being found in sandy washes, they are found in areas with a substrate of fine loose soil. Horned lizard diet consists of ants and other insects. In some regions of California it is thought that exotic ant species, that have displaced and reduced numbers of native ants, are unpalatable to horned lizards and reduced the lizard's abundance. Locally, this species is most common in the Morro Bay to Cayucos area. In that area, it is associated with fine, sandy soils. Dr. Andoli, the herpetologist of Cal Poly, believes that the coast horned lizards may have disappeared from many of the places in which they were once found in San Luis Obispo County. No horned lizards were observed during field surveys, but appropriate habitats do occur on the study site.

California legless lizards are adapted for burrowing in sandy or loamy soils and through leaf litter. As such, they spend much of their time underground or beneath duff. Legless lizards may be active on the surface at night, remaining in subsurface moisture horizons during the day. They are fairly common in sandy soils of Montana de Oro State Park, Los Osos, and Morro Bay. They were not found on the study site and because sandy soils are uncommon, they are not expected to occur on site.

Two-striped garter snake has a geographic distribution from Monterey Bay into Northern Baja. This species is primarily aquatic. It is most common along streams, flooded ditches, or in the vicinity of almost any permanent source of water. It is most frequently found where streamside and streambed rocks are abundant in areas where streams pass through shrublands or woodlands. Appropriate habitats appear on the study area, but this species was not observed during field surveys.

Common loons are frequent visitors along the coastal and freshwater habitats of the central coast but are rare residents along the coast in the summer. At least two were seen swimming in the ocean just off shore from the study site. Common loons forage mostly in open shallow waters near the coast. The birds primarily

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winter along the coast but do not breed here. Breeding occurs in Northern North American lakes near coniferous forests.

California Brown Pelicans are common summer and fall birds off the central coast. Pelicans were observed on the site feeding in the off shore waters near the coast. They prefer off shore islets and rocks as resting and roosting habitats. Since pelicans do not breed in the area, they would not be impacted by the development on shore.

Double-crested cormorants breed in the locality of Morro Bay. They are year around residents of the central coast and forage in coastal waters, bays and lagoons. They were observed on the study site; however, no impact would be expected to the cormorant population from the proposed development.

Great blue herons typically nests in colonies in the tops of large secluded snags or the tallest available live trees within a given area, often near shallow-water feeding areas (Zeiner et. al, 1990). Great blue heron are highly sensitive to human disturbance and have been known to abandon existing nests following significant disturbance (Zeiner et al., 1990). There is a Great blue heron rookery at Morro Bay State Park, but no rookery exists on the project site. They were observed foraging in the Ellyslly Creek floodplain and marsh on the study site and near Villa Creek and the adjoining wetlands east of the study site. These birds are very sensitive to human disturbance. Prolonged or continued noise or other disturbance would drive them away from a foraging area. Great blue herons would still use the site if the proposed road was constructed but probably not as frequently during times of high usage or noise.

Sharp-shinned hawks are rare visitors along the central coast but were observed flying over the study site, which is most likely used by the hawks as a winter flyway. Its preferred habitat on site would be the upland riparian areas around the Ellyslly Creek wetland. The effect on the Sharp-shinned hawk from any development on the property would be minimal.

Cooper's hawks are primarily a winter visitor to San Luis Obispo County and would be expected to forage along the coastal grassland and scrub areas on the study site. However, none were observed any on the study site during the survey period. The hawk is not shy and often hunts birds in residential and industrial communities.

Northern harriers are common transients and winter visitors to San Luis Obispo County, but some birds are known to remain in the county during the summer breeding season. Nesting is restricted to areas along the north county coastline. Harriers are most abundant soaring and foraging over grassland and marsh habitats, and one was observed doing so on the study site during field survey. Harriers may feel some impact from any road development through riparian or scrub areas of the property since most pairs nest in the northern coastal areas of the county. Evidence of raptor nests were seen in some trees in riparian areas of the property, but a summer survey would be needed to determine if they were harrier nesting sites.

White-tailed kites are common along the coast from Morro Bay north. These birds are not abundant and populations do not seem migratory. The primary food sources for kites are voles and gophers. They forage extensively over grasslands and often near wetlands. One White-tailed kite was seen hunting near the proposed house site on the coastal bluff. Any change in the grassland or wetland habitats will affect the ability of the birds to forage successfully in a given area.

Golden eagles are most common in coastal areas north of Cayucos. These are the most sensitive birds to human disturbance. Golden eagles usually nest in secluded areas. Golden eagles would likely use the riparian and coastal scrub areas on the study site for perching and the adjacent grasslands for foraging. Brush rabbits, ground squirrels, and other large rodents and mammals. One species that has been frequently observed hunting over the coastal slopes north of Cayucos is the Golden Eagle (*Aquila chrysaetos*),

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a California State Species of Special Concern. It has been documented from the site just north of the project site in previous biological studies.

Peregrine Falcons (*Falco peregrinus*), a state listed endangered species, are expected to occasionally hunt for birds and migrate through the area. There are active peregrine nesting sites to the south at Morro Rock and to the north at Piedras Blancas, and juvenile peregrines may disperse through this area from these natal sites. In addition, Burrowing Owls (*Athene cunicularia*), a federal and California State Species of Concern, occur as rare winter visitors along the immediate coast and have been documented to occur on a site just north of the study site.

Discussion

- (a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Impacts to Special Status Wildlife

Direct impacts to wildlife could result from take (e.g., injury, death) via construction-related disturbances such as trampling or crushing from equipment or construction crews. Indirect impacts to wildlife species could result from noise, harassment, dust, or other disruption during construction activities or through modifications to the species' habitat.

- *Potential Impacts to Pinnipeds.* The building envelope on Proposed Parcel 1 is 1.5 acres located in the southwest corner of the study site near the seabluff and eroded ravines leading to the rocky shoreline. The major concern with this site is its proximity to a small harbor seal (*Phoca vitulina*) haul out and pupping area located on the adjacent Schneider property about 150 to 200 meters north of the Chinese kelp fisherman's house. The rocky shoreline on the project site itself does not appear to be a haul out area as no seals have been observed using it during field survey period. On the central coast of California, harbor seals give birth to the pups from late February to early May. The peak months for pupping are March and April.

The harbor seal population would be affected by construction on the site and by other human activities once the site was developed. The seals do not appear to be accustomed to human disturbance, as was demonstrated when all entered the water immediately when the biologists approached the haul out area. Haul out areas are usually traditional sites used over long periods of time. The seals might leave the site as a result the construction and human habitation on the site unless precautions are taken not to disturb them. During construction of the house, large equipment may disturb the seals temporarily. This impact is considered *significant unless mitigated*.

- *Potential Impacts to Southern Sea Otter.* Southern sea otters (*Enhydra lutris*) were observed swimming and feeding in the kelp beds directly off the rocky shore of the Pierson property. The otters may use the rocks as a resting area and would likely be adversely affected to some extent by construction and human habitation along the coastal bluff associated with development on Parcel 1. This impact is considered adverse but not significant because of the distance from the areas of disturbance on the project site to the intertidal areas and the temporary nature of construction activities.

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Impacts to Special Status Plant Species

- *Impacts to San Luis County Morning Glory.* The building site on Proposed Parcel 1 is 1.5 acres on the grassy slope near the top of the highest hillside overlooking the coastal bluff. Full development of this building envelope would result in the loss of 1.5 acres of southern coastal grassland. While this parcel has some native grasses, it is not an area with significant stands of natives. Introduced, annual grasses and forbs cover much of the building site which is unlike most of the other grasslands on the site which is comprised of one of the most impressive and diverse California native grasslands along the central coast of California. The grassland habitat, including the building site, it is also habitat for the sensitive plant species *Palystepia subacaulis* var. *episcopalis* (San Luis Obispo County morning glory), the only rare plant found on the site. This impact is considered *significant unless mitigated*.

- (b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*

Loss of Potential Hunting and Foraging Habitat – Coastal Bluff Area. A diversity of wildlife use the bluff area near the building envelope on Proposed Parcel 1 for foraging and hunting, including mule deer, raccoons, small rodents, brush rabbits, rodents, and a variety birds. Bobcat tracks were found in an eroded gully approximately 20 meters from the proposed building site. The presence of brush rabbits and other rodents in the immediate area is evidence that this it is a site used by bobcats, coyotes, and perhaps mountain lions for hunting and movement between the grassland and nearby coastal scrub and riparian habitats. All would be adversely affected by the development of this site and would be forced to move to other nearby locations. Construction and regular human use of the site would reduce the value of this location as a hunting and foraging area forcing a change in hunting and movement patterns of these wildlife species. It is possible that their population size will decline to some extent.

Loss of Potential Hunting and Foraging Area – Coastal Scrub and Grasslands. Southern coastal grassland provides hunting areas and habitat for a large number of vertebrate species. Full development of the building site and road to Proposed Parcel 2 will result in the loss of 2 to 3 acres of this grassland habitat. In addition, the construction of the home and habitation of the home after construction will cause some wildlife species to move from the site. Animal populations that currently use this grassland area for foraging and hunting will have to use other areas, and populations may be reduced to some extent. This impact will affect several species of amphibians, reptiles, birds, and mammals. Amphibians and reptiles, such as pacific tree frogs, western fence lizard, southern alligator lizard, common kingsnake, and gopher snake, hunt in the grassland.

Birds and mammals, such as western meadowlark, sparrows, house finches, mule deer, and small rodents like western harvest mouse and California voles, forage in the grassland areas for seeds, vegetation material, insects and other invertebrates. Raptors, such as the northern harrier, red-tailed hawk, American kestrel, and common barn owl, use the nearby trees and coastal scrub for roosting but hunt in the grassland. Predators, such as bobcats and mountain lions, prey upon the deer, small rodents, cottontail rabbits, and brush rabbits found in the grassland. If prey species are reduced, the predators will be forced to hunt elsewhere in the area. Habitat for all of these wildlife species will be reduced by the proposed development to some extent.

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Wildlife habitat types often gain importance because of their proximity to other types. Often riparian, other woodlands, and coastal scrub are regarded highly while grasslands are not. Grasslands, however, are important because they provide variety in a landscape. Some forms of wildlife are found mainly in grasslands, but more often, grasslands enhance the value of other habitats for wildlife. Many animals may use closed habitats like riparian woodlands, oak woodlands, and blue gum forest for breeding, cover, and resting, and use grasslands for foraging. The two together are necessary for some species to survive on the site. For example, red-tailed hawks will use tall trees adjacent to grasslands for nesting, but do most of their hunting in the grasslands. Loss of grassland areas will reduce the value of nearby woodlands and shrublands because of the loss of foraging habitat.

- (c) *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

As discussed above, a wetland has been delineated associated with Ellysy Creek. However, there are no aspects of the project associated with driveway construction or construction of either single family dwelling that would impact riparian resources.

Overall, the project will not adversely impact state or federally protected wetlands.

- (d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Maintaining connectivity between areas of suitable habitat is critical for dispersal, migration, foraging, and genetic health of plant and wildlife species. The project site is in a semi-rural area of San Luis Obispo County, northwest the community of Cayucos, surrounded grazing lands to the north and west and the abalone farm to the east. Existing barriers to migration to and from non-developed portions of the project site, particularly for wildlife, are influenced by the low density of agriculture in the region, which typically correlates with a relatively low frequency of land manipulation, wildlife-exclusion fences, and pest management activities. As a result, natural habitat features are currently unfragmented on three sides of the project site, south, west and north. New localized barriers may be created by the construction of the two dwellings which may deter general wildlife movement through the area; however, no large-scale passage barriers are proposed. Further, no passage barriers through aquatic features or along the ocean front are proposed as a part of the project. Therefore, the proposed project is not expected to increase the overall level of fragmentation in the region.

- (e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

As designed, the project does not propose the removal of trees or other activities that would conflict with local policies and ordinances relating to the protection of biological resources.

- (f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The project site is not located in an area governed by a Habitat Conservation Plan, Natural Community Conservation Plan or other policy or ordinance.

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Conclusion

With implementation of Mitigation Measures BIO-1 through BIO-7 potential impacts to biological resources would be less than significant.

Mitigation

- BIO-1 Pinnipeds/ Otter Avoidance.** Construction activities shall not take place during the pinniped pupping season, March 1 through May 31st of each year. All construction activities shall be set back from the cliff to avoid visual impacts to seals using the haul out area identified on the adjacent parcel to the northwest. The setback area and distance shall be determined by a qualified marine mammal biologist prior to construction activities.
- BIO-2 Pinnipeds/ Otter Avoidance.** Pedestrian traffic above the seal haul out area shall be limited to the area outside the setback. No dogs are allowed in the area near the haul out and pupping areas. Pedestrians shall stay well back of the cliff and out of sight of the shoreline during low tide when the seals do haul out. Fencing shall be installed so that dogs and pedestrians do not have access to the shoreline where the haul out areas are.
- BIO-3 Coastal Scrub Grassland.** Development on Proposed Parcel 1 will impact over an acre of coastal scrub. To mitigate the impacts to native grassland-coastal scrub, disturbed areas on the marine terrace that are currently dominated by various weeds shall be restored in native grassland to offset the loss of coastal scrub - grassland associated with development of residences within the identified building envelopes
- BIO-4 Fencing.** Coastal scrub and wetland/riparian areas that occupy entire site shall be fenced so that cattle no longer have access to these sensitive areas.
- BIO-5 Limitation on Construction Area.** Construction and development shall be restricted to the proposed building sites, water tank sites, roads and driveways as shown on the approved plans. The remainder of the site shall remain in permanent open space through an open space easement agreement with the County.
- BIO-6 Restoration & Revegetation Plan. At time of construction permit application,** a restoration and revegetation plan for California coastal scrub-native grassland and San Luis County Morning Glory shall be prepared for review and approval by the County and implemented on the disturbed areas of the marine terrace. The areas of disturbance along the access road shall be revegetated with a mixture of native grasses and forbs indigenous to the site including the rare San Luis Obispo County Morning Glory. **Prior to grading of the area,** the San Luis Obispo County morning glories within the building area shall be salvaged and used to revegetate the areas along the road and other disturbed areas on the site.
- BIO-7 Open Space Easement. Prior to issuance of a grading permit,** the applicant shall execute and record an open space easement for for all areas outside designated building envelopes and driveways, in a form approved by County Counsel and as necessary, the Executive Director of California Coastal Commission in conformance with applicable Coastal Act regulations. The open space easement shall include a formal legal description and graphic depiction of subject properties including Ellysly Creek habitat area. Development shall be prohibited in the open space area except for:

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- a. Restoration, protection, and enhancement of native riparian habitat and grassland habitat consistent with the terms of the final Native Grassland and San Luis County Morning Glory restoration and revegetation plan.
- b. Associated improvements for the California Coastal Trail

Sources

See Exhibit A.

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V. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

As defined by CEQA, an historical resource includes:

1. A resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR).
2. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant. The architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural records of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence.

The COSE identifies and maps anticipated culturally sensitive areas and historic resources within the county and establishes goals, policies, and implementation strategies to identify and protect areas, sites, and buildings having architectural, historical, Native American, or cultural significance.

The project site is located in an area of high archaeological sensitivity. A Phase I cultural resources survey was completed for the project site in April of 2001 by Clay Singer. Subsequent sub-surface investigations were performed on an identified cultural resources site in May of 2005 and supplemented in July of 2005 (Clay Singer). Historical resources were evaluated by Greenwood and Associates (GANDA) in April 2005. The following is a summary of the findings and conclusions of those studies.

An initial reconnaissance survey was carried out on March 16 and 18, 2001, by Staff Archaeologist Sean A. Lee of Clay Singer. On April 1, 2001; additional observations were made by Messrs. Singer and Lee at the site locations. Site record, forms were completed and site numbers were assigned on March 22, 2001, by Bonnie Y. Yoshida, Assistant Coordinator of the California Archaeological Information Center at UCSB. The survey was conducted on foot. All level areas and rock outcrops were examined with special care; steeper slopes were ignored while slight inclines were examined using linear or zigzag transects spaced at intervals of 15 to 25 m. Locations where cultural resources were likely to occur were thoroughly examined. These include the entire coastal terrace, existing roadways, the hilltop, rock outcrops, drainage channels, and the small canyon near State Highway 1.

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Hillsides and portions of the coastal terrace are largely covered with native vegetation, coastal sage scrub, while flatter areas also support non-native grasses and weedy annuals. Overall, surface visibility was good to fair. Patches of open ground, excavated burrows, cattle trails, and roadways provided sufficient visibility of all portions of the property.

Archaeological resources are present at three separate locations on the property. One location is a site recorded earlier, CA-SLO-999 (the Wong How residence) (Singer 1998), while the others are newly discovered deposits, CA-SLO-2088 (the Coast Guard observation building) and pre-historic site CA-SLO-2089. The development on Proposed Parcel 1 will result in some level of impact to cultural resources. No impacts to cultural resources are anticipated for Proposed Parcel 2.

CA-SLO-999 (Wong How Kelp Farmer House)

At the southwestern corner of Existing Parcel 1, near the edge of the terrace, there is a small wooden building recognized as the former home of Mr. Wong How (Singer 1998). Immediately west of the building is a barbed wire fence that marks the western boundary of the property. This building was the home and workplace of Wong How, and his wife, the last of several Chinese abalone ranchers and sea vegetable farmers (Hamilton 1974). The house is about 15 m long and consists of three parts: a southern section (c. 4 x 9 m) with a low peaked roof, an adjoining northern section (c. 6 x 4 m) with a higher peaked roof, and a shed (c. 5 x 3 m) with a pitched roof attached to the west side of the southern section. The foundation is not visible and the house is in poor condition.

The processes of aging and weathering, and persons unknown, have significantly damaged site CA-SLO-999. Wong How house is likely to collapse during the next decade. Although recorded in 1998, the site was not investigated further and no other work seems to have been done since then. Natural weathering processes accelerated by vandalism have diminished the overall value of this site as an historic resource.



Figure 29 – Wong How kelp farmer house

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The building seems to have been constructed and reconstructed several times. Wood shingles cover the lower southern roof while horizontal boards and composite paper cover the higher northern roof, and the shed. Vertical boards of various sizes, attached with galvanized wire nails, cover most exterior walls. But, much of the east face is covered with corrugated steel sheet. One door is missing and the doorway is blocked by two steel drums. A stove pipe protrudes from the northern end of the roof of the southern section, but no stove remains. The building is overgrown and little is visible inside except for a weathered table supporting an equally weathered, hand hewn, game board. Neither the building nor the shed were entered.

This site was recorded as CA-SLO-999 by Clay A. Singer and Associates (CASA) and preliminary sketches made in 1998, and the record was updated in 2001. The area was revisited in 2004, when photographs were taken and preliminary research accomplished. A collection of 177 artifacts was gathered from the surface and in the adjacent ravine, washed, numbered, and a listing prepared. Materials observed but not itemized include boots and leather shoes, spent rifle and shotgun cartridges, flashlight batteries, and cow, pig, and chicken bones (Greenfield, pers. comm. 2004). The site was recognized for its important values in architecture, history, and archaeology (Singer 1998, 2001, 2004).

The Wong How site, CA SLO-999, appears eligible for listing in the National Register of Historic Places under Criterion A, for its association with broad patterns of California history; Criterion C, for its embodiment of the distinctive characteristics of a period, type, and method of construction; and under Criterion D, for its potential to yield important historical and archaeological information. The building/site is significant at the state level. Its period of significance, 1909-1975, relates to the occupation of Wong How, who, at the time of his departure, was the last known Chinese seaweed collector on the California coast. His dwelling is the only known standing structure associated with this once common occupation pursued by members of this particular ethnic group.

Site CA-SLO-2088 (Coast Guard Building)

About 100 meter east of Wong How house is a second building, a small cabin constructed on a graded pad around 1950. Local citizens recall it as an observation station built by the U.S. Coast Guard. The two-room, wood-frame building is rectangular, ca. 15 by 25 feet. It rests on concrete piers and is painted gray. It has horizontal clapboards, a single gable roof with wood shingles, an east facing doorway with an overhang, and five double-hung four-panel windows. The northern half of the building is a kitchen with a water heater, a stove flue, and a sink with a small window above it. The southern half is a bedroom with two bunk-beds and a single rifle rack. Floors are made of soft wood slats while the walls and ceiling are covered with unpainted plywood panels. Some of the window panels are broken and much of the hardware has been removed.

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Figure 30 – Coast Guard Building



Southeast of the station, about 25 meter, is an unpainted wood, two-seater outhouse with a wood shingle roof; it is overturned and collapsing. Immediately west of the station is an erosion gully wherein some refuse appears; other materials occupy the crawl space under the station. A flake of Monterey chert and a piece of abalone shell were found just north of the station is tan brown clayey soils. Although disturbed the area probably holds other prehistoric artifacts.

The site CA-SLO-2088 (P-40-002088) was recorded in 2001 (Lee and Singer 2001). On State Form DPR 523C, the box describing the site was checked as prehistoric, although the notation was added, "Building on site may have been constructed by US Coast Guard" (Singer 2001a). The covering survey report acknowledged the presence of both the historical and prehistoric components. The former was described as two structures, "the" Coast Guard Station and an outhouse (Singer 2001b:4). The sketch map locates the possible outhouse about 33.75' (10.3 meters) northeast of the main structure, upslope about 10-12' higher in elevation. It was described as a two-seater with a wood shingle roof, overturned and in a state of collapse. By 2004, the superstructure was gone, and the setting was observed as lined with large stones and wood. In 2004, Singer's team surveyed "the China Harbor House" and the ravine west of CA-SLO-2088, recovering parts of an old stove, old bottles, and a "historic opium bottle."

Several efforts to develop the history of the structure were made by Clay Singer and Cathy Novak. Inquiries were sent to the U. S. Coast Guard Headquarters in Washington, D. C. (Price 2004), and aerial photos were obtained depicting conditions in 1937 and 1949. Information was sought from Gary Ream, Morro Bay Historical Society; Mike Shaindon, Chief, U. S. Coast Guard Station Morro Bay; and local residents Mrs. Lena Monetti, Vernon Soto, and Dave Williams, Pierson Ranch. The consensus from all these sources was that the structure was not present in 1937, had been built by 1949, and that it had functioned as a Coast Guard look-out station. No further documentation has been acquired.

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The former Coast Guard building appears potentially eligible for listing in the National Register of Historic Places under Criterion A, for its association with events that have made a significant contribution to the broad patterns of history, and under Criterion C, as a fine representative example of its period and type. The building is significant at the local level and its period of significance, 194[2]-1945, corresponds with its reputed use by the Coast Guard as part of its coastal defense infrastructure during World War II.

Site CA-SLO-2089 (Prehistoric Site)

The project area contained a non-pristine prehistoric site which mainly contained a collection of stone tools and lithic debitage. Most of the deposit has been damaged, the soils appear unremarkable, and the archaeological remains are sparse. The small size of the core and unweathered condition of the artifacts suggests a Late Prehistoric assemblage.

A Phase II, sub-surface evaluation of site CA-SLO-2089 was conducted in May, 2005 (Singer, 2005). Between July and September, 2004, the coastal terrace on the Pierson Ranch was examined and the identified resources were redefined. Surface artifacts were located, plotted, and collected, five auger holes (15 cm diameter) and three subsurface test units (1m x 1m) were hand excavated, and the removed soil samples were processed. Concurrently, archaeologists were collecting historical materials and information from nearby sites CA-SLO-999 and CA-SLO-2088, Wong How house and the Coast Guard Building, respectively (Greenwood and Slawson 2005).

Subsurface testing and surface sampling at CA-SLO-2089 was based on information collected during the previous series of archaeological and geological surveys carried out between 2001 and 2004. In 2001, the site was defined on the basis of visible surface artifacts. Later examinations of surficial soils and soil profiles exposed in gullies and on cliffs faces greatly expanded the distribution of archaeological materials and expanded the size of the prehistoric site. Some portion of the increased site has been identified inside the building envelope on Proposed Parcel 1.

Based on this new information, an extended Phase I survey was conducted by Applied Earthworks, Inc., (AE, 2019) for Proposed Parcel 1 to determine the potential impacts of the development on the intact archaeological deposits associated with site CA-SLO-2089. AE conducted subsurface testing between December 10–13, 2018 that included an intensive pedestrian survey of the building envelopes on Parcels 1 and 2, as well as hand excavation of 19 shovel test pits distributed throughout the proposed construction area within Proposed Parcel 1 building envelope. Each shovel test pit was excavated in 20 centimeter levels and 50 centimeters in diameter. Sediments were dry screened through 1/8-inch hardware mesh. All cultural material observed during testing were recorded on field forms. No cultural materials were collected and all items were reburied within the shovel test pit from which they originated.

Paleontological Setting

The project site is underlain by serpentine ultramafic rock which is not associated with paleontological resources.

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Discussion

- (a) *Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?*

Potential Impacts to Site CA-SLO-999 (Wong How kelp farmer house)

The structure is approximately 97.5 feet from the building envelope designated for Parcel 1 and will not be directly affected by driveway or residential construction. Although not affected by grading or construction, the building is subject to continuing deterioration, particularly since much of the roof is gone. The deposit in the ravine is only about 30 feet from the building envelope. The archaeological materials are subject to continuing natural slumping and runoff, in addition to any measures that may be taken to fill or stabilize the drainage channel. In addition, the temporary presence of numerous tradesmen, and other visitors, increases opportunities for negative impacts here, and at other resource sites.

Potential Impacts to Site CA-SLO-2088 (Coast Guard Building)

The prehistoric components of site CA-SLO-2088 were undoubtedly disturbed when the Coast Guard Station was built, but exactly what was there beforehand cannot be determined. The Coast Guard building is proposed to remain at its present location and will not be directly affected by driveway or residential construction. Historical research and documentation of the structure(s), and an inventory of associated materials, will further enhance the significance of this resource.

- (b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*

Potential Impacts to Site CA-SLO-2089 (Prehistoric Site)

Site CA-SLO-2089 is a damaged prehistoric deposit with sparse surficial remains. A surface sample of stone artifacts suggests a Late Prehistoric deposit, dating somewhere between 1200 and 1800 AD. The damages are probably caused by anthropogenic activities over time on the project area. As identified in the subsurface testing, the prehistoric site extends into the Parcel 1 building envelope on the marine terrace. Any ground-disturbing activities on this portion of the terrace will impact CA-SLO-2089. Based on this information, site improvements to the Proposed Parcel 1 could result in possible significant impacts to cultural resources. Impacts can be reduced by avoiding site disturbance on the terrace area, minimizing road improvements and installing an engineered septic system (instead of traditional leach field system) to minimize surface disturbance. A mitigation plan that includes focused archaeological monitoring, Phase III data recovery (if avoidance is not possible), and sample analysis should be prepared and accompany the final construction plan.

Outside of the boundaries of CA-SLO-2089, no intact cultural materials were observed within areas of proposed development. No additional subsurface testing is recommended for these areas; however, monitoring by a qualified archaeologist and Native American representative are recommended.

AB 52 consultation outreach was conducted for this project, and responses were received by Northern Chumash Tribal Council, who requested a site consultation. Tribal consultation is discussed in Section XVIII, Tribal Consultation.

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(c) *Disturb any human remains, including those interred outside of dedicated cemeteries?*

in the unlikely event resources are uncovered during grading activities, implementation of CZLUO Section 23.10.040 (Archaeological Resources) would be required. This section requires that, in the event archaeological resources are encountered during project construction, construction activities cease, and the County Planning Department be notified of the discovery. If the discovery includes human remains, the County Coroner shall also to be notified.

Conclusion

There are three recorded cultural sites on Proposed Parcel 1. The developable area within the building envelope on Proposed Parcel 1 is highly constrained due to geologic hazards, cultural resources, and general bluff topography. Development of a new residence and associated improvements (access road, septic leach fields) will potentially result in significant impacts to cultural resources. With the incorporation of the following mitigation measures, impacts to cultural resources can be reduced to less than significant.

Mitigation

CR-1 Limit Ground Disturbance on Parcel 1 – New ground disturbance associated with improvement of the existing access roadway shall be limited to the minimum required by Cal Fire driveway safety standards. Ground disturbance associated with construction of the dwelling and septic leach field shall be limited to the area outside of the boundaries associated with site CA-SLO-2089. If the proposed leach field cannot be relocated or an engineered system cannot be feasibly installed, a Phase III archaeological data recovery shall be undertaken for this area as described in mitigation measure CR-6.

CR-2 Cultural Resources - Monitoring Plan. Prior to issuance of grading and/or construction permit(s), the Applicant shall submit a Monitoring Plan, prepared by a County-approved archaeologist, for review and approval by the County Department of Planning and Building. The intent of this Plan is to monitor earth-disturbing activities in areas identified as potentially sensitive for cultural resources, per the approved Plan. The Monitoring Plan shall include at a minimum:

- a. List of personnel involved in the monitoring activities;
- b. Inclusion of involvement of the Native American community, as appropriate;
- c. Description of how the monitoring shall occur;
- d. Description of frequency of monitoring (e.g., full-time, part time, spot checking);
- e. Description of what resources are expected to be encountered;
- f. Description of circumstances that would result in the halting of work at the project site (e.g., What is considered “significant” archaeological resources?);
- g. Description of procedures for halting work on the site and notification procedures; and
- h. Description of monitoring reporting procedures.

Prior to construction/ground-disturbing activities, the Applicant shall ensure that any construction-related subsurface excavation in sensitive areas are tested by a County-approved archaeologist. Should buried resources be identified, further testing or avoidance shall be required; if avoidance is not possible, mitigation through data recovery shall be required (as defined in Mitigation Measure CR-6 - Cultural Resources - Phase III data recovery program).

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CR-3 Crew Education - The monitoring plan shall also include provisions defining education of the construction crew and establishing protocol for treating unanticipated finds. In consultation with a County-approved archaeologist, the Applicant shall provide cultural resources awareness training to all field crews and field supervisors. This training will include a description of the types of resources that may be found in the project area, the protocols to be used in the event of an unanticipated discovery, the importance of cultural resources to the Native American community, and the laws protecting significant archaeological and historical sites. In addition, the Applicant shall provide all field supervisors with maps showing those areas sensitive for potential buried resources.

The Project Archaeologist shall verify implementation of the Plan **during construction of improvements**. A final report on compliance shall be submitted by the archaeologist **prior to final inspection/occupancy of individual lot construction permits**.

CR-4 Cultural Resource – Construction Monitoring. During ground disturbing construction activities, the applicant shall retain a County qualified archaeologist, and working with Native American monitor to monitor these earth disturbing activities, per the approved monitoring plan. If any significant archaeological resources or human remains are found during monitoring, work shall stop within the immediate vicinity (precise area to be determined by the archaeologist in the field) of the resource until such time as the resource can be evaluated by an archaeologist and any other appropriate individuals. The applicant shall implement the mitigation as required by the Environmental Coordinator.

CR-5 Minimize Impacts. - If cultural resources are identified on site, further testing or avoidance shall be required. In consultation with the Environmental Coordinator, archeologist, Native American monitor, project redesign may be required to avoid significant impacts or reduce to a less than significant level.

- a. Project redesigns could include, but not limited to, moving foundation elements, designing spanning foundations, reducing proposed excavation volumes, and altering proposed utility lines and connection alignments.
- b. Foundation design may need to be altered to minimize site disturbance. "Side-by-side" comparisons of disturbance and calculations of volume of cultural materials affected will be submitted to show the revised foundation design will result in the least disturbance. **The approved redesign(s) shall be verified by the County prior to construction work.**
- c. Where project must encroach within the identified cultural resource(s), incorporation of fill shall be considered. Only sufficient fill shall be placed over the site so as to allow native soils to remain undisturbed (e.g. 18 inches for residential footings, 6-8 inches for driveway construction). Clean, sterile fill, consisting of a layer of other conspicuous material (e.g. fill of a noticeable different color and texture than native soil) shall be placed over the native soil prior to placement of any other clean fill material. Native soils shall not be disturbed or compacted within the cultural resource areas. A qualified archaeologist shall be retained to oversee this work and prepare a summary report to be submitted to the County **prior to final inspection or occupancy (whichever occurs first)**.

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- d. If avoidance is not possible, mitigation through data recovery shall be required (as defined in Mitigation Measure CR- 6 Phase III Data Recovery Program) prior to **construction permit issuance**.
- e. Alternate mitigations may also include a combination of soil capping and Phase III Data Recovery, where feasible.
- f. If human remains are found, an agreement of Non-Disturbance of Native American burial sites may be required **prior to final inspection** to prevent future disturbance to the site(s) identified.

CR-6 Cultural Resources - Phase III Data Recovery Program. If, during site disturbance monitoring, cultural resources are discovered on site and avoidance is not possible, the applicant shall submit to the Environmental Coordinator (and possibly subject to peer review) for review and approval, a detailed research design for a Phase III (data recovery) archaeological investigation. The Phase III program shall be prepared by a qualified archaeologist approved by the Environmental Coordinator. The Phase III program shall include at least the following:

- a. Standard archaeological data recovery practices;
- b. Recommendation of sample size adequate to mitigate for impacts to archaeological site, including basis and justification of the recommended sample size. Sample size typically is 2% of the volume of disturbed area. If a lesser sample size is recommended, supporting information shall be presented that justifies the smaller sample size.
- c. Identification of location of sample sites/test units;
- d. Detailed description of sampling techniques and material recovery procedures (e.g. how sample is to be excavated, how the material will be screened, screen size, how material will be collected);
- e. Disposition of collected materials;
- f. Proposed analysis of results of data recovery and collected materials, including timeline of final analysis results;
- g. List of personnel involved in sampling and analysis.

Once approved, these measures shall be shown on all applicable construction drawings and implemented **during construction**. **Prior to final inspection**, the applicant shall provide to the County a final report on the investigation work conducted during construction.

CR-7 Cultural Resource – Completion Report. Upon completion of all monitoring/mitigation activities, and prior to occupancy or final inspection (whichever occurs first), the consulting archaeologist shall submit a report to the Environmental Coordinator summarizing all monitoring/mitigation activities and confirming that all recommended mitigation measures have been met. If the analysis included in the Phase III program is not complete by the time of final inspection, the applicant shall provide to the Environmental Coordinator, proof of financial obligation to complete the required analysis and curation of findings.

Sources

See Exhibit A.

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VI. ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Pacific Gas & Electric Company (PG&E) is the primary electricity provider for urban and rural communities within the County of San Luis Obispo. Approximately 33% of electricity provided by PG&E is sourced from renewable resources and an additional 45% is sourced from greenhouse gas-free resources (PG&E 2017).

PG&E offers two programs through which consumers may purchase electricity from renewable sources: the Solar Choice program and the Regional Renewable Choice program. Under the Solar Choice program, a customer remains on their existing electric rate plan and pays a modest additional fee on a per kWh basis for clean solar power. The fee depends on the type of service, rate plan and enrollment level. Customers may choose to have 50% or 100% of their monthly electricity usage to be generated via solar projects. The Regional Renewable Choice program enables customers to subscribe to renewable energy from a specific community-based project within PG&E's service territory. The Regional Renewable Choice program allows a customer to purchase between 25% and 100% of their annual usage from renewable sources.

SoCalGas is the primary provider of natural gas for urban and rural communities with the County of San Luis Obispo. SoCalGas has committed to replacing 20% of its traditional natural gas supply with renewable natural gas by 2030 ([Sempra 2019](#)).

The County COSE establishes goals and policies that aim to reduce vehicle miles traveled, conserve water, increase energy efficiency and the use of renewable energy, and reduce greenhouse gas emissions. The COSE provides the basis and direction for the development of the County's EnergyWise Plan (EWP), which outlines in greater detail the County's strategy to reduce government and community-wide greenhouse gas emissions through a number of goals, measures, and actions, including energy efficiency and development and use of renewable energy resources.

In 2010, the EWP established a goal to reduce community-wide greenhouse gas emissions to 15% below 2006 baseline levels by 2020. Two of the six community-wide goals identified to accomplish this were to "[a]ddress future energy needs through increased conservation and efficiency in all sectors" and "[i]ncrease the production of renewable energy from small-scale and commercial-scale renewable energy installations to account for 10% of local energy use by 2020." In addition, the County has published an EnergyWise Plan 2016 Update to summarize progress toward implementing measures established in the EWP and outline overall trends in energy use and emissions since the baseline year of the EWP inventory (2006).

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The goals and policies in the COSE and EWP address the 2005 GHG emissions reduction targets for California (Executive Order S-03-05) issued by California's Governor in 2005. The targets include:

- By 2010 reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels;
- By 2050, reduce GHG emissions to 80% below 1990 levels.

The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC includes mandatory green building standards for residential and nonresidential structures, the most recent version of which are referred to as the *2019 Building Energy Efficiency Standards*. These standards focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and non-residential lighting requirements. While the CBC has strict energy and green-building standards, U-occupancy structures (such as greenhouses) are typically not regulated by these standards.

The County LUO includes a Renewable Energy Area combining designation to encourage and support the development of local renewable energy resources, conserving energy resources and decreasing reliance on environmentally costly energy sources. This designation is intended to identify areas of the county where renewable energy production is favorable and establish procedures to streamline the environmental review and processing of land use permits for solar electric facilities (SEFs). The LUO establishes criteria for project eligibility, required application content for SEFs proposed within this designation, permit requirements, and development standards (LUO 22.14.100). The project site is not located in a Renewable Energy Area combining designation.

Discussion

- (a) *Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*
- (b) *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Construction-related Impacts. During construction, fossil fuels, electricity, and natural gas would be used by construction vehicles and equipment. The energy consumed during construction would be temporary in nature and would be typical of other similar construction activities in the County. State and federal regulations in place require fuel-efficient equipment and vehicles and prohibit wasteful activities, such as diesel idling. Construction contractors, in an effort to ensure cost efficiency, would not be expected to engage in wasteful or unnecessary energy and fuel practices. Energy consumption during construction would not conflict with a state or local plan for renewable energy and would not be wasteful, unnecessary, or inefficient, and therefore would be less than significant.

Operational Impacts

Electricity and Natural Gas. The CBC 2019 Building Energy Efficiency Standards includes mandatory energy efficiency standards that apply to new residential construction. The new dwellings will be subject to compliance with CBC 2019 Building Energy Efficiency Standards, and therefore the energy demand of these uses would not be wasteful, inefficient, or unnecessary.

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Fuel Use. Construction activities will result in fuel use for worker and delivery trips and the operation of construction equipment. Ongoing operation of the project will result in fuel use associated with residential motor vehicle trips.

Total fuel use associated with construction and operation of the project would be about 1.1% of the total daily fuel consumed in the County in 2018. Accordingly, fuel consumption associated with the project would not be wasteful, inefficient or unnecessary.

Conclusion

The project will be constructed with fixtures and equipment that meets current building codes for energy conservation and efficiency. Therefore, potential impacts associated with energy use would not be wasteful, inefficient or unnecessary and would be *less than significant*.

Mitigation

None are required.

Sources

See Exhibit A.

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VII. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The project site is located on a coastal parcel that extends south from Highway 1 over a coastal ridgeline to the ocean. The project site is not subject to the Geologic Study Area designation. The Setting in Section 2, Agricultural Resources, describes the soil types and characteristics on the project site. Liquefaction potential during a ground-shaking event is considered moderate along Ellysly Creek which is outside the areas proposed for grading and development. The project is within an area known to contain serpentine or ultramafic rock or soils. The project site is not located in an Alquist Priolo Fault Zone, and no active fault lines cross the project site (CGS 2018).

The San Luis Obispo County Mineral Designation Maps indicate the site is not located in a Mining Disclosure Zone or Energy/Extractive Area. Therefore, the project would not result in the preclusion of mineral resource availability.

CZLUO Section 23.05.034 sets forth standards and permit requirements for grading for the siting of new development. Section 23.05.034(b)(3) states that grading on slopes between 20% and 30% may occur by minor use permit, subject to the following:

- i. The applicable review body has considered the specific characteristics of the site and surrounding area including: the proximity of nearby streams or wetlands, erosion potential, slope stability, amount of grading necessary, neighborhood drainage characteristics, and measures proposed by the applicant to reduce potential erosion and sedimentation.
- ii. Grading and erosion control plans have been prepared by a registered civil engineer and accompany the request to allow the grading adjustment.
- iii. It has been demonstrated that the proposed grading is sensitive to the natural landform of the site and surrounding area.
- iv. It has been found that there is no other feasible method of establishing an allowable use on the site without grading on slopes between 20% and 30%.

Portions of the roadway providing access to Parcel 2 will require grading on slopes between 20% and 30%. In addition, portions of the roadway will require grading on slopes in excess of 30% which will require approval of a variance.

The project site has been the subject of several geotechnical investigations as summarized in Table 10.

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Table 10 -- Geotechnical Investigations				
Author	Date	Topic	Peer Review	Notes
Parcel 1 – Coastal Bluff Site				
Geosolutions, Inc.	March 7, 2001	Soils Engineering, Lower (Coastal Bluff) Site	--	Applicable to current project except bldg. footprint has been relocated to the north side of the building envelope away from the erosional feature/ravine
Geosolutions, Inc.	March 26, 2001	Engineering Geology, Lower (Coastal Bluff) Site	Geoinsite, Inc., March 17, 2009	
Geosolutions, Inc.	March 20, 2001	Coastal Bluff Evaluation		
Cleath and Associates	March 22, 2006	Coastal Bluff Suitability Evaluation	Geoinsite, Inc., March 17, 2009	Applicable to current project, western building site on Parcel 1 only.
Cleath-Harris Geologists	February 2, 2011	Landslide Conditions, Supplement No. 2	Geoinsite, Inc. February 15, 2011	
Parcel 2 – Hillside Site				
Geosolutions, Inc.	March 7, 2001	Soils Engineering, Upper (Hillside) Site	--	Applicable to current project except building envelope for Parcel 2 has been relocated slightly westward to avoid visual impacts
Geosolutions, Inc.	April 2, 2001	Engineering Geology, Upper (Hillside) Site	--	
Parcel 1 and Parcel 2				
Earth Systems	July 23, 2019	Geologic Hazards Report	--	Applicable to the current project, including proposed septic leach field location. Included borings and test pits
Access Road				
Geosolutions, Inc.	April 2, 2001	Engineering Geology, Roadway Alignment	--	Applicable to current project except that the intersection with the HWY 1 access road (Villa Creek Road) has been relocated to avoid archaeological resources.

The engineering geological studies for the building sites characterize the geologic hazards affecting each site including seismic hazards, slope stability, liquefaction and seismic sea wave. The studies conclude that geologic hazards can be mitigated with application of appropriate provisions of the Building Code, especially as it relates to proper grading, drainage and erosion controls.

The engineering geology report prepared for the roadway is applicable to current project except that the intersection with the HWY 1 access road (Villa Creek Road) has been relocated to the east to avoid archaeological resources. The study concludes that the proposed roadway alignment is suitable for the proposed development and that no major geologic hazards are present along the alignment. Grading on slopes of 30% or more to construct the roadway can be accommodated without creating or exacerbating geologic hazards.

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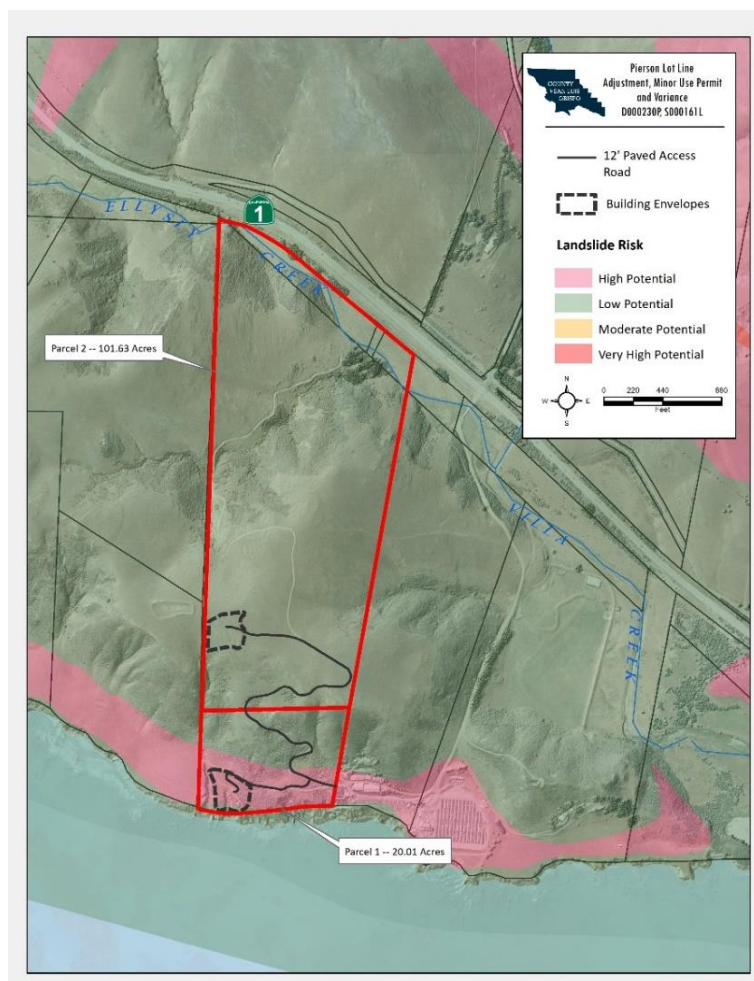
The soils engineering studies characterize the soil properties underlying each building envelope and recommend design parameters for preparation of the building pad, grading, paved areas and pavement design, building foundations, and retaining walls.

The studies associated with landslides and coastal bluff retreat are discussed in the impact sections below.

SEDIMENTATION AND EROSION -- The soil types of the project site are summarized in Table 3 of Section II. Agricultural Resources. As described in the NRCS Soil Survey, the affected soil surfaces are considered to have low erodibility and moderate shrink-swell characteristics. When erosive conditions exist, a sedimentation and erosion control plan is required per CZLUO Sec. 23.05.042 to minimize these impacts. When required, the plan is prepared by a civil engineer to address both temporary and long-term sedimentation and erosion impacts. Projects involving more than one acre of disturbance are subject to the preparation of a Storm Water Pollution Prevention Plan (SWPPP), which focuses on controlling storm water runoff. The Regional Water Quality Control Board is the local extension who monitors this program.

LANDSLIDE RISK – The County's Safety Element provides a map of landslide risk for the unincorporated county. Based on that data, the area along the coastal bluff (Figure 31), including the building envelope for Parcel 1 is rated as having a High Potential for landslide.

Figure 31 -- Landslide Hazard as Mapped By the County



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The following characterization of the landslide risk associated with the project site was derived from a Geologic Hazard Report prepared by Earth Systems (July, 2019). The Earth Systems report builds on the earlier geologic investigations (Table 10) and incorporates the results of field investigations (including large diameter borings and trenching), laboratory analysis of materials derived from the field investigation, a geologic hazards assessment and slope stability analysis.

The marine terrace areas and the area at the top of the slope are mapped as having a moderate potential for landsliding. The State of California ranks the south facing slope, and most of the remaining property as class VIII and IX for deep seated landslide susceptibility. The remaining portions of the site are ranked as class V. The State assigns the class rating as a function of rock strength and slope steepness (CGS 2011). The 7.5' quadrangle geologic map depicts two landslides on site (Delattre 2016). The State and County's maps are intended as a regional assessment and may not represent the risk at a specific site. A site-specific exploration was performed to assess the potential for landsliding at the site which is discussed in greater detail in the impact discussion that follows. The work performed for this study, in addition to previous explorations, has provided the data to create a conceptual model that includes a complex landslide exhibiting characteristics of a deep seated rotational bedrock slump and earth flow. The methodology for the development of the site model and slope stability analysis, including a factor of safety against sliding are presented in the impact section.

The regional geologic map depicts two landslides on site. A small landslide mapped by Delattre west of the large landslide Qls1 was not confirmed during the field exploration. Boring BB-6 was advanced to evaluate the downslope part of the mapped feature but landslide deposits were not observed. This feature appears to be an erosional scarp that forms an arcuate feature at the upstream edge of the drainage swale that is visible in aerial photographs.

The largest landslide on site, identified as Qls1 (including Qdf) (Figure 32), is a large complex landslide that has characteristics of a rotational bedrock slump and a relatively thin deposit of debris that fanned out onto the marine terrace as an earth flow (Cruden and Varnes 1996). The indications are generally somewhat subdued because of normal surficial processes, including weathering and erosion, have been affecting the features for at least 4,500 years. The indications include an arcuate head scarp, a rubble pile, and a layer of slide debris on the marine terrace. This landslide has a combined area (Qls1, Qls2 and Qls3) of approximately 12 acres and the stability of this feature is addressed in the slope stability section of impact analysis provided below. This landslide may have been caused by the over-steepening or undercutting by an old drainage on the eastern part of the property that extended southeast onto the abalone farm property. Evidence for this drainage is apparent in the thickening of the marine terrace deposits in the eastern part of the property, and in the stratigraphy of the alluvium that comprises the terrace deposits. Anomalous abundant rounded cobbles and large gravels can be observed in the terrace deposits that form the bluff just east of the property. It is hypothesized that the slump collapsed into this drainage filling it with the slide mass and earth flow deposits.

Two smaller landslide features present at the sea cliff are identified on Figure 33 as Qls2 and Qls3. These two landslides are secondary failures that consist of the debris fan and marine terrace deposits eroding off the edge of the coastal bluff.

The age of the landslides can be roughly constrained by superposition of features on and beneath the landslide. The wave cut bench is considered to be 120 years old (Weber 1979). The date of the bench is correlated to other wave cut benches along the coast of Central California and dated

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through analysis of fossils (Hanson et al 1994). The age of the landslides can be no older than the wave cut bench but is likely much younger as it postdates the prism of sediment that lies upon the wave cut bench. The surface of the landslide Qls1/Qdf, the youngest possible age of the large slide, is constrained by archeological artifacts.

An archeological assessment at the site was conducted by Applied Earthworks Inc, (2019) (*See Section IV. Cultural Resources*). Based on the type of artefacts observed on the site, the human occupation on the landslide debris is estimated to be about 4,500 years before present. This information provides the youngest possible age of the landslide, and it is possibly much older. The two smaller landslides, Qls2 and Qls3, are younger than the main slide because the slides occur within the larger and older slide. Qls2 and Qls3 are not considered constraints to development of the project.

COASTAL BLUFF EROSION – Coastal Zone LUO Section 23.04.118 sets forth the requirements for blufftop setbacks for new development. In sum, Section 23.04.118 requires new development to be set back from the bluff edge a distance sufficient to assure stability and structural integrity and to withstand bluff erosion and wave action for a period of 75 years without construction of shoreline protection structures that would, in the opinion of the Planning Director, require substantial alterations to the natural landforms along bluffs and cliffs. A site stability evaluation report by a certified engineering geologist based upon an on-site evaluation is required that indicates that the bluff setback is adequate to allow for bluff erosion over the 75 year period according to County established standards. Coastal bluff erosion is discussed in greater detail in the impact section below.

Discussion

- (a) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
 - (a-i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*
 - (a-ii) *Strong seismic ground shaking?*
 - (a-iii) *Seismic-related ground failure, including liquefaction?*
 - (a-iv) *Landslides?*

Faulting/Seismic Hazard. The project site is not located within an Alquist-Priolo Earthquake Fault Zone but is in an area of known seismic activity. Known faults and fault systems within the region that potentially could generate earthquakes affecting the site include the Cambria, Oceanic-West Huasna, Hosgri-San Simeon, Los Osos, Rinconada, San Luis Range and San Andreas faults, (Delattre 2016, San Luis Obispo Co. 2019, USGS 2019). These are known faults within a 65-mile radius of the site; other unknown faults may exist in the region and movement on any of these faults could affect the proposed development during its design life. The closest significant mapped fault to the site is the Cambria fault, located approximately 1/2 mile east of the site. There are no mapped faults on site.

Surface ground rupture generally occurs at sites that are traversed by, or lie very near to, an active fault. The site is not located in any State or County designated Earthquake Fault Zones (CGS 2018, San Luis Obispo Co. 2019) and there are no mapped faults crossing the site. The closest mapped *Holocene-active* (A-P Zoned) fault to the site is the Hosgri-San Simeon System, located approximately

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4 miles west. Because there are no mapped active faults on the site, the potential for surface fault rupture to occur at the site is considered very low.

Liquefaction. The site is located in an area mapped by the County as having a low to moderate potential for liquefaction (San Luis Obispo Co. 2019). Due to the subsurface and geologic conditions encountered by the subsurface investigations performed by Earth Systems in 2019, (i.e., clay soils and shallow bedrock), the potential for liquefaction and dynamic settlement is considered very low.

Landslide Hazard.

Geosolutions, March 2001

An engineering geological analysis of two potential building sites proposed for Parcel 1 was prepared by Geosolutions in March, 2001 which concluded that neither building envelope was at risk of landslide. However, the County subjected this study to peer review and the reviewing geologist recommended that additional exploration be performed to provide better information on which to evaluate landslide conditions.

Cleath-Harris Geologists, Inc., 2006

Accordingly, a landslide risk analysis was prepared by Cleath-Harris Geologists, Inc., to supplement the previously prepared study. The exploration included the continuous coring of subsurface materials down to and into the Cretaceous sandstone and shale beds to depths of between 57 and 92 feet, and the excavation of test pits. The investigation resulted in findings related to the limits of the landslide complex, the types of landslides, the depth of the landslide materials, the relationship of the landslides to the terrace deposits and underlying bedrock, and water saturation. Figure 32 illustrates the limits of the landslide complex along with the location of test bore holes.

According to the Cleath-Harris study, within the landslide complex discussed above, several landslides have occurred under varying climatic and possible tectonic conditions. In addition, soil creep is evident. However, the study concludes that the building envelope proposed for Parcel 1 is located outside the landslide complex and does not have evidence of landslide activity. Risks associated with deep-seated rotational or translational landslides are not considered significant due to the age of the existing landslide deposits. The sequence of depositional activity in the landslide complex indicates that the major events are likely to have occurred more than 4,500 years ago and may not be replicable under current climatic conditions. Hazards associated with debris flow and soil creep, however, continue to be a potential hazard to building and road/driveway improvements. The debris flows can occur during wet conditions that cause surface water flows in the ravine areas up-slope from the building envelopes. These have occurred within the recent past as evidenced in the test pits above the building envelopes and on adjacent parcels where similar ravines exist. Debris flows that deposit mud, sand and gravel should be expected to occur in the vicinity of, and within, the coastal bluff building site. Therefore, protective berms or walls should be installed above the building site.

Peer Review Performed By Geosites, Inc, 2011

The Cleath-Harris landslide analysis was subjected to peer review by Geosites, Inc. (February 18, 2011). According to the County's peer review geologist, the landslide complex poses the most critical geologic constraint to site development and requires further

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characterization and evaluation to determine the geologic feasibility of the building sites. Impacts from debris flows and rockfall also require further evaluation to quantify the hazard, but can be mitigated through engineering design measures based on the evaluations.

In general, the peer review agrees with CHG's opinion that a landslide underlying the hillside would be old and dormant. They further agree, from a qualitative standpoint, that the potential for movement over the next 100 years is probably low, if it is assumed that the surficial materials at the base of the slope have never been impacted by the landslide. According to the peer review geologist, current regulations and standard-of-care require that the future stability of the landslide be demonstrated by quantitative analysis. In this case, several key parameters required for quantitative analysis remain unknown (e.g., landslide geometry and strength properties of sheared material). The peer review suggests two approaches for addressing these concerns:

1. Acquire geologic information sufficient to characterize (or disprove) the deep-seated landslide. This has been suggested previously by both Fugro West and Geosite, but has not yet been accomplished.
2. Attempt to conduct reasonable slope stability analyses of postulated landslide geometries without first establishing landslide depth(s) from further drilling. This task requires the Project Geologist to depict consistent bedrock structure, water levels, and possible, deep-seated landslide scenarios on geologic cross sections, and assist the Project Geotechnical Engineer in selecting reasonable but conservative values for material properties and seismic loads. In light of the sensitivity and difficulty in conducting this type of analysis, we recommend that the County encourage the Applicant to select a Project Geotechnical Engineer with prior experience in analyzing bedrock landsliding (many soils engineers only have experience in analyzing soil failures). In addition to the quantitative landslide analysis, the Project Geologist will need to address the long-term stability of the surficial deposits. Additional site data may be required to demonstrate uniformity and lack of deformation in the surficial deposits.

Earth Systems, July 2019 Geologic Hazard Report

To address the peer review concerns, and to provide an overview of geologic hazards associated with the project site, a Geologic Hazards Report was prepared by Earth Systems in July, 2019. The following is a summary of the findings and conclusions of that analysis.

Slope stability analyses are required when natural or constructed slopes exceed a gradient of 2:1 (H:V) or have evidence of prior landslide activity; this site includes natural slopes that are 1.7:1 (H:V) and indications of prior landslide activity. Slope stability analyses were performed using the computer program Slide Version 2018 (Rocscience). Static and pseudostatic (seismic) analyses were performed on the cross sections A-A' through C-C' (Figure 32) to calculate a factor of safety against failure (FoS). The County of San Luis Obispo requires the static FoS to be 1.5, and the pseudostatic FoS to be 1.1, or greater. The slope stability analysis methods utilized for the slope stability calculations are those recommended by SCEC (2002) and include Bishop, Spencer, and Janbu Simplified. SCEC recommends that Spencer's method be used for analysis of failure surfaces of any shape. The geologist has included the results of Bishop's and Janbu's methods for comparison but consider the results of Spencer's method to govern.

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Each of the cross sections (Figure 32) and the results of the slope stability analyses are discussed below. The results of the analyses are presented in Table 11.

Cross Section A-A'

Cross section A-A' was analyzed using 2 different scenarios; Scenario 1 includes the entire slope with the intent of assessing the global stability of the entire slope. Scenario 2 focuses the analysis to the upper part of the slope which is adjacent to the proposed building envelope on Parcel 2 (hillside).

The analysis for Scenario 1 indicates that the portion of the slope, located approximately 600 feet downslope from the proposed building envelope on Parcel 2 (hillside), and off property, is marginally stable under static conditions with a minimum FoS of 1.4, and unstable under pseudostatic conditions with a minimum FoS of 0.99. Regardless, surficial instability on this portion of the slope does not present a hazard to the development of Parcel 2 and should not be a constraint.

The analysis for Scenario 2 is focused on the part of the slope that is adjacent to proposed building envelope on Parcel 2 (hillside). For this part of the slope, the geologist has subsurface data and confidence in the model. The minimum FoS for static condition for this model is 1.5. The pseudostatic model indicates that there is a potential for shallow surficial instability at the swale located over 200 feet down slope of proposed building envelope on Parcel 2. This area of surficial instability is limited to the shallow layers of fissured and unfissured colluvium. Because this area is located well over 100-feet from the proposed building envelope and is surficial in nature, it is not considered to present a hazard to the proposed development. The global FoS is greater than 1.1 for this slope under pseudostatic conditions.

Cross Section B-B'

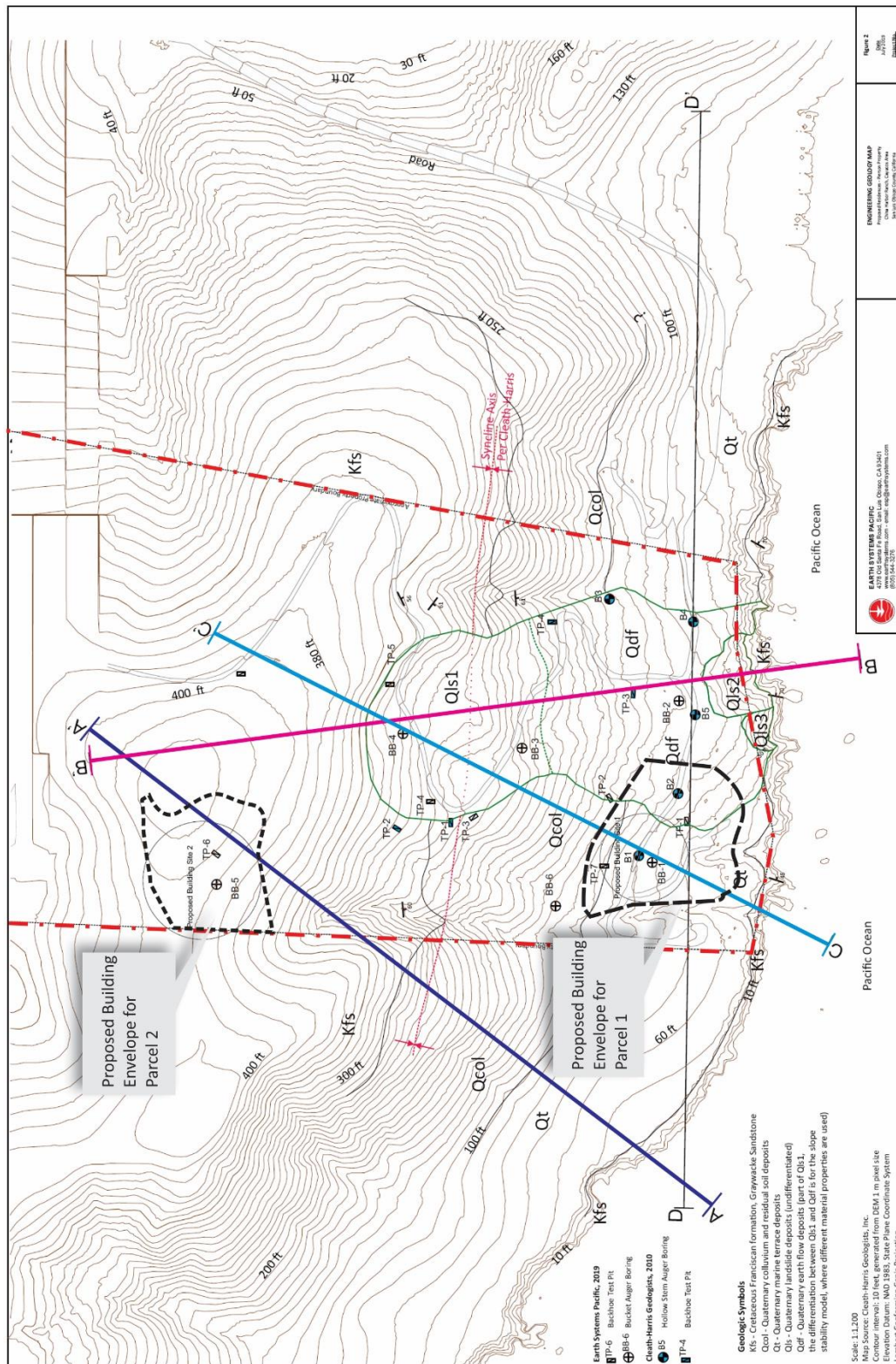
Cross section B-B' models the landslide mass in a longitudinal section. The minimum static FoS for cross section B-B' is greater than 1.5. The pseudostatic analysis indicates that the minimum FoS for the slope under seismic loading is greater than 1.1. The indications are that the driving force for this landslide have been dissipated and that the earthflow serves as a buttress to the bedrock slump.

Cross section C-C'

Cross section C-C' models the slope adjacent to proposed building envelope on Parcel 1. The minimum static FoS for cross section C-C' is greater than 1.5. The pseudostatic analysis indicates that the minimum FoS for the slope under seismic loading is greater than 1.1.

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Figure 33 -- Engineering Geology Map (Earth Systems, July 2019)



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Table 11 -- Slope Stability Results

Cross Section	Static Factor of Safety	Meets or Exceeds County FoS Standard (1.5)?	Pseudostatic Factor of Safety	Meets or Exceeds County FoS Standard (1.1)?	Comments
Section A-A' Scenario 1	1.4	No	1.0	No	Instability is 600 ft. downslope from Bldg. Site 2
Section A-A' Scenario 2	1.5	Yes	1.0	No	Surficial instability is downslope from Bldg. Site 2
Section B-B'	1.8	Yes	1.2	Yes	Meets County FoS Standards
Section C-C'	1.8	Yes	1.2	Yes	

Source: Earth Systems Geologic Hazards Report, Proposed Residences - Pierson Property China Harbor Ranch, Cayucos Area San Luis Obispo County, California, July 23, 2019, Table 4

The preceding analyses suggest that both building sites meet County Factor of Safety standards for slope stability. With incorporation of the recommendations of the relevant provisions of the engineering geologic analyses of the project site, together with compliance with the standards of the California Building Code, project impacts associated with slope stability and seismic hazards are considered *less than significant*.

(b) *Result in substantial soil erosion or the loss of topsoil?*

Grading activities for the construction of the driveways, dwellings and septic leach fields are subject to the provisions of the California Building Code and County standards for grading and road construction. Table 12 provides a summary of site disturbance and cut and fill quantities.

Table 12 -- Summary of Total Site Disturbance	
Project Component	Quantity
Grading on slopes >30%	+/- 0.15 Acres
Total Site Disturbance:	3.16 Acres
Cut	8,500 cy
Fill	4,800 cy
Balance (export)	3,700 cy

The balance (export) will be spread over an area designated on the grading plan.

Improvement of the access road, driveways, residential building sites and septic leach fields, including grading activities, may also result in erosion and down-gradient sedimentation. The construction of dwellings and paved driveways will increase the amount of impervious surfaces which in turn will increase the volume and velocity of runoff generated by the site compared with existing conditions. As discussed in the project description, the project will result in the disturbance

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of approximately 3.16 acres. Based on the NRCS soil survey, soils covering the project site exhibit a low susceptibility for erosion.

According to the preliminary grading plan for the project, the finish grades will result in manufactured slopes that would be subject to erosion. The project grading plans have been informed by the soil engineering and engineering geology reports described in the setting which have been subjected to peer review.

With regard to the dwelling proposed on Parcel 1, the grading and drainage plans show that runoff will be collected and conveyed to a storm water dispersal wall along the south side of the residence and metered out to prevent erosion downslope toward the bluff top.

As discussed in the setting, above, the topography of the project site will necessitate grading on slopes between 20% and 30% and in some place on slopes in excess of 30% to create the private driveway to Parcel 2. Retaining walls are proposed along the driveway which will ensure stable roadways and the management of erosion downslope. Compliance with relevant provisions of the Building Code and Coastal Zone Land Use Ordinance (described in the Setting, above) will address potential impacts to erosion.

Bluff Setback/Seacliff Retreat. At the site, a coastal bluff forms an approximately 30 to 60 foot-high escarpment that consists of a bedrock cliff with marine terrace and earth flow deposits on top of an ancient wave cut platform. San Luis Obispo County requires that bluff stability be demonstrated for all development that is proposed within an area described by the intersection of a plane inclined at 20-1/4 degrees from horizontal from the toe of the coastal bluff and the land surface, or 50 feet from the bluff-top edge, whichever is greater (LUO §23.04.118). The intersection of a plane inclined at 20-1/4 degrees from the toe of the bluff intersects the top of the marine terrace approximately 118 feet from the edge of the bluff top. Because proposed building on Parcel 1 is greater than 118 feet from the top edge of the bluff it is landward of the area requiring evaluation and demonstration of stability.

Three bluff erosion studies have been prepared for the project site:

Geosolutions, Inc., March 20, 2001, Coastal Bluff Evaluation – This study is applicable to the building envelope shown on Parcel 1 (Figure 33) and includes a discussion of coastal bluff erosion rates. The study determined an erosion rate of approximately 3.5 inches per year. Based on a 100-year period of erosion, the setback for the residence from the edge of the bluff top should be at least 30 feet measured from the top of bluff. The study concludes that the site is suitable for development and recommends design parameters to ensure hazards associated with coastal erosion are avoided.

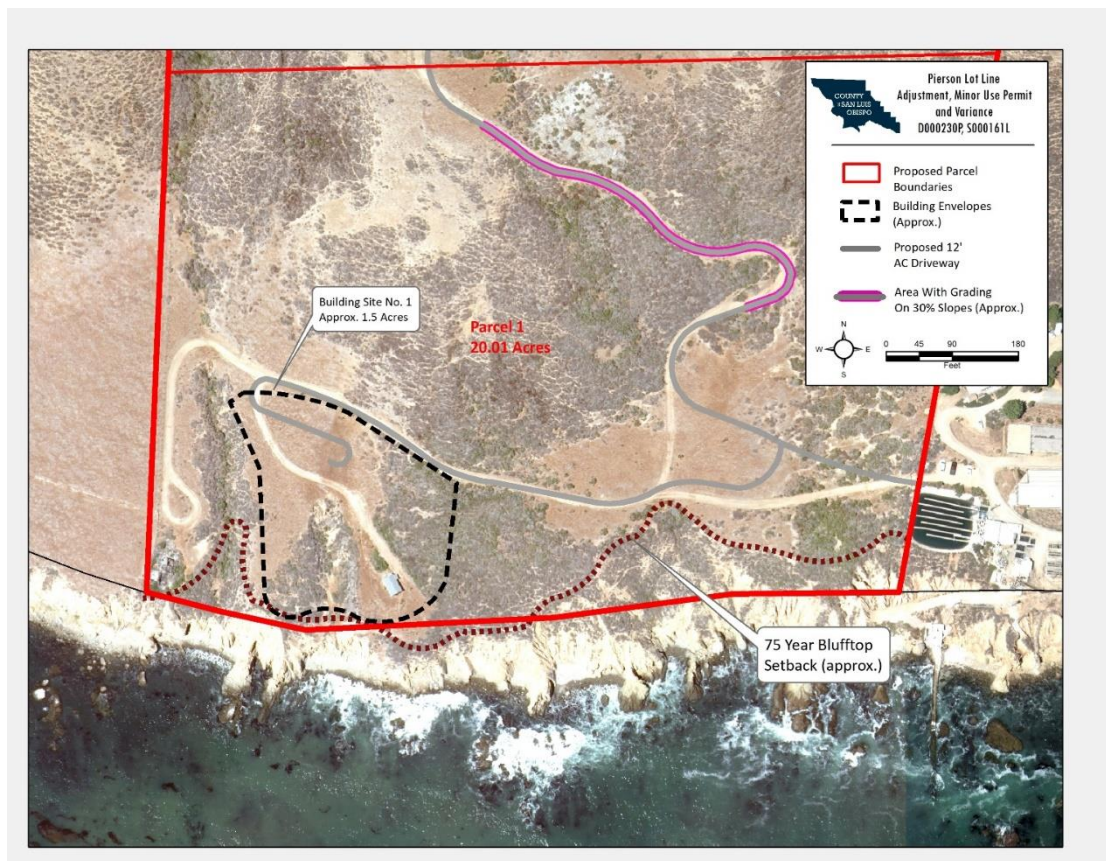
Cleath and Associates, March 22, 2006, Coastal Bluff Suitability Evaluation – This study provides a second analysis of coastal bluff retreat and is applicable to the building envelope shown on Figure 32 and also includes a second building site along the bluff that is no longer proposed. The study concludes that the rate of bluff retreat determined by the March, 2001 study prepared by Geosolutions, Inc. (3.5 inches per year) is likely conservative and that a more accurate rate would be 1.5 inches per year. Nonetheless, the study recommends that the 3.5 inches per year rate provides an added margin of safety and should be retained.

Earth Systems, July 2019. - As discussed in the setting, the CZLUO requires new development to be set back from the bluff edge a distance sufficient to assure stability and structural integrity and to withstand bluff erosion and wave action for a period of 75 years. The

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approximate location of the 75 year setback is shown on Figure 33. Based on other work in the area assessing bluff retreat at several sites in Cayucos, Earth Systems has established bluff retreat rates that range from 0.6 to 4.9 inches per year. The type of bluff at the site, exposed graywacke sandstone, is within the lower part of this range and an estimated retreat rate of 3 inches per year would be conservative for this site. A retreat rate of 3 inches per year would produce a bluff retreat of 25 feet over a 100-year period. The proposed development within Parcel 1 building envelope is over 118 feet from the coastal bluff and retreat is not considered to pose a hazard to the project.

Figure 33 -- Approximate Location of Blufftop Setback



As shown in Figure 33, the dwelling and driveway proposed for Parcel 1 have been setback well beyond the 75 year bluff top setback determined by the geotechnical analysis (GeoSolutions, 2001) and confirmed by Cleath and Associates in 2006.

- (c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Landslide/slope stability issues are discussed above under item (a).

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- (d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

According to the NRCS Web Soil Survey, soils that underly the area proposed for development are considered expansive as defined by Table 18-1-B of the Uniform Building Code. Compliance with the recommendations of the project geotechnical reports and the provisions of the California Building Code will address the risk posed by expansive soils.

Percolation tests were performed by GeoSolutions in December 2000 for both building sites. The test results showed percolation rates over 120 minutes per inch for both proposed leach field locations. The percolation rate is considered very slow, and the soils are considered “tight”. Without proper engineering, effluent will have a tendency to pond or stagnate, and not filter adequately through the soil to properly break down the effluent into harmless components. Therefore, plans will need to be submitted to the county for approval of an engineered septic system or an acceptable design to the Regional Water Quality Control Board, and which meets the CPC/Basin Plan criteria. Due to the slow percolation rates, conventional septic systems and leach field disposal is not feasible. Alternative systems will be required for wastewater treatment and disposal. Based on the following project conditions or design features, wastewater impacts can be mitigated by the use of an approved alternative system.

- ✓ The project has sufficient land area per the County’s Land Use Ordinance to support an on-site system;
- ✓ The soil’s percolation rate is over 120 minutes per inch;
- ✓ The leach lines are outside of the 100-year flood hazard area;
- ✓ There is adequate distance between proposed leach lines and existing or proposed wells;
- ✓ The leach lines are at least 100 feet from creeks and water bodies.
- ✓ An approved alternative system subject to review and approval by the RWQCB and the County Department of Planning and Building will be required prior to issuance of a building permit.

Prior to building permit issuance and/or final inspection of the wastewater system, the applicant will be required to submit to the County for review and approval, an alternative disposal system in compliance with the County Plumbing Code/ Central Coast Basin Plan, including any above-discussed information relating to potential constraints. Therefore, based on the project being able to comply with these regulations and mitigation measures, potential wastewater impacts are considered *less than significant*.

- (e) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

According to the NRCS Web Soil Survey, soils of the project site present significant limitations for the use of septic leach fields.

- (f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

The project site is not located in an area of the County known to support significant paleontological resources.

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Conclusion

The project site contains several geologic hazards that may be exacerbated by the proposed residences on Parcel 1 and Parcel 2. Several studies were conducted to evaluate the slope stability on Parcel 2 (hillside) to ensure the construction of the house and associated infrastructure (leach field, access road or sim) are outside of the active landslide area. Compliance with State requirements and County ordinance for drainage, erosion and sedimentation control will reduce potential construction impacts to less than significant.

As for Parcel 1 (bluff side), the building envelope is constrained by a portion of the active landslide area, the naturally eroding ravine, and an identified pre-historic site. In addition, the existing soil has low percolation rate that may impact a traditional leach field design. With a constrained buildable area and expansive soil, the project will have to explore an alternative disposal system (i.e. engineered septic system) subject to the review and approval of the Regional Water Quality Control Board and County Department of Planning & Building.

Mitigation

GEO-1 At the time of construction permit application, the project shall explore an alternative wastewater disposal system subject to the review and approval of the Regional Water Quality Control Board and/or County Department of Planning & Building.

Sources

See Exhibit A.

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VIII. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Greenhouse gases (GHG) are any gases that absorb infrared radiation in the atmosphere, and are different from the criteria pollutants discussed in Section III, Air Quality, above. The primary GHGs that are emitted into the atmosphere as a result of human activities are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases. These are most commonly emitted through the burning of fossil fuels (oil, natural gas, and coal), agricultural practices, decay of organic waste in landfills, and a variety of other chemical reactions and industrial processes (e.g., the manufacturing of cement).

Carbon dioxide is the most abundant GHG and is estimated to represent approximately 80-90% of the principal GHGs that are currently affecting the earth's climate. According to the ARB, transportation (vehicle exhaust) and electricity generation are the main sources of GHGs in the state.

In March 2012, the SLOAPCD approved thresholds for Greenhouse Gas (GHG) emission impacts, and these thresholds have been incorporated into the CEQA Air Quality Handbook. The Bright-Line Threshold of 1,150 Metric Tons CO₂/year (MT CO₂e/yr) is the most applicable GHG threshold for most projects. Table 1-1 in the SLOAPCD CEQA Air Quality Handbook provides a list of general land uses and the estimated sizes or capacity of those uses expected to exceed the GHG Bright Line Threshold of 1,150 Metric Tons of carbon dioxide per year (MT CO₂/yr). Projects that exceed the criteria or are within ten percent of exceeding the criteria presented in Table 1-1 are required to conduct a more detailed analysis of air quality impacts.

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Discussion

- (a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*
- (b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*
- (c) (a-b) According to Southern California Edison, a typical residential household consumes about 6,000 kWh of electricity per year for a household of three, and 400 therms of natural gas which is the equivalent of 12,000 kWh per year. Therefore, one dwelling consumes the equivalent of about 18,000 kWh of energy per year.

The project site will support two single family residences with a total operational energy demand of about 36,000 kWh per year. According to the US EPA Greenhouse Gas Equivalence Calculator, 36,000 kWh of energy use is the equivalent of about 25.5 metric tons of CO₂ equivalent.

Based on this information, project GHG emissions would not exceed the SLOAPCD's Bright Line Threshold of 1,150 MTCO₂e and project impacts associated with GHG emissions would be less than significant.

Conclusion

The project would result in less than significant GHG emissions during long-term operations and would not conflict with plans adopted to reduce GHG emissions.

Mitigation

None are necessary.

Sources

See Exhibit A.

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IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Setting

To comply with Government Code Section 65962.5 (known as the “Cortese List”) the following databases/lists were checked in September, 2019 for potential hazardous waste or substances occurring at the project site:

- List of Hazardous Waste and Substances sites from Department of Toxic Substances Control (DTSC) EnviroStor database
- List of Leaking Underground Storage Tank Sites by County and Fiscal Year from Water Board GeoTracker database
- List of solid waste disposal sites identified by Water Board with waste constituents above hazardous waste levels outside the waste management unit
- List of “active” Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from Water Board
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC

The database review concluded that the project site is not located in an area of known hazardous material contamination. With regards to potential fire hazards, the subject project is within the moderate Fire Hazard Severity Zone(s). Based on the County’s fire response time map, it will take approximately 10 to 15 minutes to respond to a call regarding fire or life safety. Refer to the Public Services and Wildland Fire sections for further discussion on Fire Safety impacts. The project is not within an Airport Review Area.

Discussion

(a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

(b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Construction activities may involve the use of oils, fuels, and solvents. In the event of a leak or spill, persons, soil, and vegetation down-slope from the site may be affected. The use, storage, and transport of hazardous materials is regulated by DTSC (22 Cal. Code of Regulations Section 66001, et seq.). The use of hazardous materials on the project site for construction and maintenance is required to be in compliance with local, state, and federal regulations. In addition, compliance with best management practices (BMPs) for the use and storage of hazardous materials would also address impacts.

Project operations would involve the intermittent use of small amounts of household hazardous materials such as fertilizer and pesticides that are not expected to be acutely hazardous.

As discussed in the Setting above, the project site is not found on the ‘Cortese List’ (which is a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5).

(c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Based on the project description, the project is not located within one-quarter mile of a school.

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- (d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

As discussed above, the project is not located on a site included on the list compiled pursuant to Government Code Section 65962.5.

- (e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

The project is not located within an area governed by an Airport Land Use Plan (ALUP).

- (f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Based on the project description and location, the project does not require any road closures and would be designed to accommodate emergency vehicle access. The project would not impair implementation or physically interfere with County hazard mitigation or emergency plans; therefore, *no impacts would occur.*

- (g) *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

The project is located within a State Responsibility Area but is not located within a “very high” severity risk area which could present a significant fire safety risk. The maximum length of a dead-end roadway serving parcels greater than 20-acres is 5,280 feet (1 mile). The roadway serving parcel 2 is about 0.6 miles from the property line with the adjacent Abalone Farm property. All driveways have been designed to meet CalFIRE standards for slope, width, surface, and length. The project was reviewed by CalFIRE (letter of December 21, 2017 from Tony Gomes). They have recommended that the project be conditioned to comply with CalFIRE requirements prior to building permit issuance.

Conclusion

The project will not result in significant impacts associated with hazards or hazardous materials.

Mitigation

No mitigation measures are required.

Sources

See Exhibit A.

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X. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

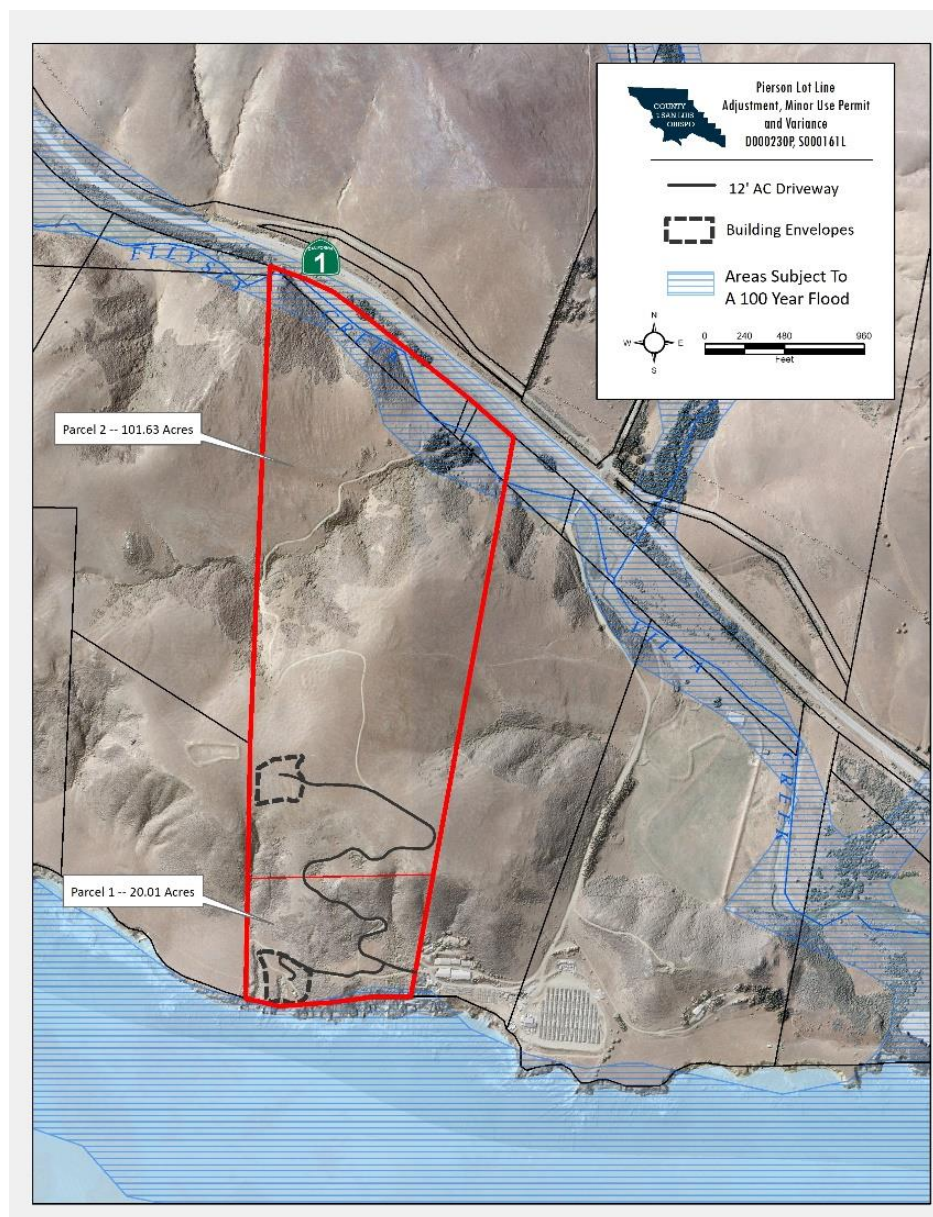
Initial Study – Environmental Checklist

Setting

Grading, drainage and sedimentation and erosion control plans are required for all construction and grading projects. When required, these plans are prepared by a civil engineer to address both temporary and long-term drainage, sedimentation and erosion impacts. The project site consists of nearly flat to steeply sloping terrain. The areas of disturbance are located in relatively flat areas at the top of the ridgeline and on the ocean bluff.

FLOOD HAZARD - Portions of the subject property along Ellyslly Creek are within the 100-year Flood Hazard designation, however neither building envelope is within the 100 year flood hazard area (Figure 34).

Figure 34 -- Areas Subject to A 100 Year Flood



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DRAINAGE - As described in the Natural Resource Conservation Service Soil Survey, soils of the project site are considered well drained to excessively well drained. For areas where drainage is identified as a potential issue, the CZLUO (Sec. 23.05.024) includes a provision to prepare a drainage plan to minimize potential drainage impacts. When required, this plan would need to address measures such as: constructing on-site retention or detention basins, or installing surface water flow dissipaters. This plan would also need to show that the increased surface runoff would have no more impacts than that caused by historic flows.

SEDIMENTATION AND EROSION - The soil types of the project site are summarized in Table 3 of Section II. Agricultural Resources. As described in the NRCS Soil Survey, the affected soil surfaces are considered to have low erodibility and moderate shrink-swell characteristics. A sedimentation and erosion control plan is required for all construction and grading projects (CZLUO Sec. 23.05.036) to minimize these impacts. When required, the plan is prepared by a civil engineer to address both temporary and long-term sedimentation and erosion impacts. Projects involving more than one acre of disturbance are subject to the preparation of a Storm Water Pollution Prevention Plan (SWPPP), which focuses on controlling storm water runoff. The Regional Water Quality Control Board is the local agency that monitors this program.

WATER DEMAND - The project proposes to obtain its water needs from a shared well drilled in 2006. Based on available information, the proposed water source is not known to have any significant availability or quality problems.

The original on site well is located in the Ellyslly Creek flood hazard area. In 2006, the property owner drilled another well outside the underflow of the creek. A 24 hour pump test was performed in 2005 by Filipponi and Thompson Drilling, Inc. Under that test, the well sustained a pump rate of 8 gallons per minute over the 24 hour test (12.9 acre-feet per year) and the water level recovered within eight hours. The applicant proposes the use of cisterns to collect roof run off and to use the captured water for landscape irrigation purposes.

Due to the pipe length and slopes present on site, booster pumps will be installed at varying intervals along the roadway to provide service. Electrical service for the well and booster pumps will also be constructed within the existing roadway. An alternative power source, i.e. diesel or propane, will be installed at the well pump to provide uninterrupted service. Minimal grading and site preparation for the well pump will be done in conformance with Health Department standards.

A water collection system for roof water runoff at the homes is additionally proposed. A cistern will be located under the garage floor or a location in close proximity to store the water. The placement of the cistern is proposed at an area for easy accessibility and to minimize any further site grading than necessary. The cistern water can be used for watering the landscaping and a potable source when treated. A normally closed valve will separate the two water systems.

One low profile water tank, shown on the site plan along the driveway to Proposed Parcel 2, will be constructed to store additional water for fire protection. The tank will be colored to mimic the site's natural backdrop and not be visible from public viewing areas. The second water tank located on Proposed Parcel 2 northeast of the home will be undergrounded to avoid any visual impacts from the public viewing areas as per the recommendation in the SWCA report dated August 2017.

Initial Study – Environmental Checklist

Discussion

- (a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

The project will result in about 3.4 acres of disturbance and will require 3,700 c.y. of cut and fill. With regards to project impacts on water quality and hydrology the following conditions apply:

- The project will be subject to standard County requirements for drainage, sedimentation and erosion control for construction and permanent use;
- The project will be disturbing over one acre and will be required to prepare a SWPPP, which will be implemented during construction;
- The project is not on highly erodible soils, but is on moderate to steep slopes;
- All elements of the project are not within a 100-year Flood Hazard designation;
- All development associated with the project is more than 100 feet from the closest creek or surface water body;
- All disturbed areas will be permanently stabilized with impermeable surfaces and landscaping;
- Parking area drainage inlets will be fitted with hydrocarbon filters;
- Bioswales will be installed as a part of the drainage plan;
- Stockpiles will be properly managed during construction to avoid material loss due to erosion;
- The project is subject to the County's Plumbing Code (Chapter 7 of the Building and Construction Ordinance [Title 19]), and/or the "Water Quality Control Plan, Central Coast Basin" for its wastewater requirements, where wastewater impacts to the groundwater basin will be less than significant;
- All hazardous materials and/or wastes will be properly stored on-site, which include secondary containment should spills or leaks occur;

The new residence on Proposed Parcel 1 includes a "storm water dispersing wall". The concept of the storm water dispersal wall is that storm water will be collected behind the wall and allowed to sheet flow over the land below the new building site in the same quantity and dispersal pattern as before development of the site. Under this approach, the first step is to calculate the volume of storm water flowing over the site before any construction and based on the design rainfall data for this area. The volume of storm water flowing from the site after improvements is then calculated in a similar manner.

Because of the increase in impermeable surfaces, the post-construction volume will be greater than pre-construction volumes. There are several methods that could be employed to balance the post-construction runoff with pre-construction volumes. For example:

Initial Study – Environmental Checklist

- The driveways could be gravel, roadway base or pervious concrete.
- The roof water can be diverted to a cistern under the house. (When the cistern is full it would overflow into the reservoir behind the dispersal wall.) The cistern system would have to be designed by a professional in that field.

The dispersal wall would have to be made longer or higher to collect more water behind it in a reservoir so the water would be released at the same rate as the original sheet flow over the site. To accomplish this, the wall must be built completely level along an existing contour_(or close to the existing contour with minor grading.) The wall would have solid return walls going uphill at each end at the height of the wall and would carry back to where it daylights into the slope forming the reservoir. The level portion of the wall along the contour would have the mortar omitted on all the vertical joints. The width of the joints and the number of courses of block would be designed by the civil engineer so the water flow would be the same as the original water flow over the site. Native grasses would be planted below the wall to prevent erosion and slow the resulting sheet flow from the wall.

- (b) *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Based on the project description, as calculated on the County's water usage worksheet, the project's water usage is estimated as follows:

Indoor:	0.17 acre feet/year (AFY) per dwelling;
Outdoor:	0.45 AFY per dwelling
Total Use:	1.25 ac AFY
Water Conservation:	0 AFY
Total Use w/ Conservation:	0 AFY

Sources used for this estimate include one or more of the following references: County's Land Use Ordinance, 2000 Census data, Pacific Institute studies (2003), City of Santa Barbara Water Demand Factor & Conservation Study 'User Guide' (1989).

As discussed above, the well test suggests that the well can sustain the delivery of about 12.9 acre-feet of water per year which is more than enough to serve the two dwelling. Based on the well test, and other available water information, there are no known constraints to prevent the project from obtaining its water demand.

- (c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*
- (c-i) *Result in substantial erosion or siltation on- or off-site?*
 - (c-ii) *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
 - (c-iii) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*
 - (c-iv) *Impede or redirect flood flows?*

Initial Study – Environmental Checklist

A preliminary grading and drainage plan has been provided with the application. The project will be conditioned to provide final grading, erosion and sedimentation control plans for review and approval prior to building permit issuance as required by CZLUO Sec. 23.05.036.

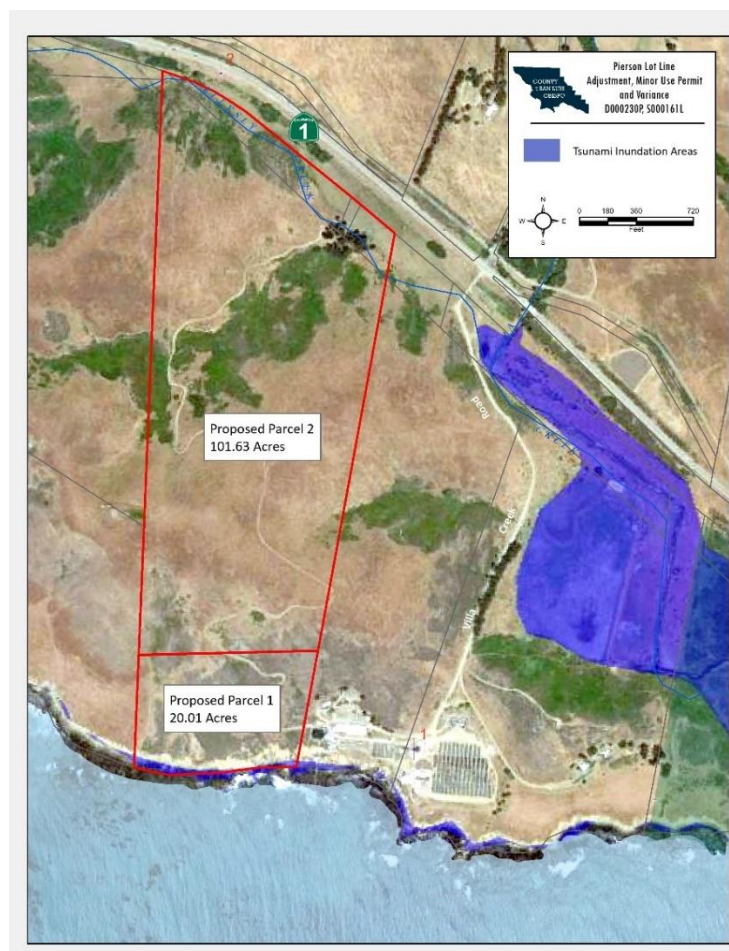
The areas proposed for development are not located within a 100-year flood plain (Figure 34) and the amount of increased impervious surfaces is not expected to exceed the capacity of stormwater conveyances or increase downslope flooding.

(d) *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

As discussed in the setting, development activities are not proposed within the 100 year floodplain.

According to the Tsunami Inundation Zone Map of San Luis Obispo County (State of California 2009), the project site lies within an area that would be minimally impacted by a seismic sea wave, or tsunami. The map (Figure 35) shows the Tsunami Inundation Zone extending landward up the course of Villa Creek toward Highway 1 south of the project site. The Tsunami Inundation Zone is based on a USGS quadrangle map with a scale of 1:24,000 or 1 inch = 2,000 feet.

Figure 35 -- Tsunami Inundation Area



Initial Study – Environmental Checklist

Based upon historical data from near and distant-source causative earthquakes, a tsunami onto the project site appears unlikely. The highest recorded tsunami surge was to 6 feet above the Mean High Tide Level due to the 1927 "Lompoc Earthquake."

Sea Level Rise/Sea Wave Runup. Sea level rise associated with climate change is expected to increase coastal erosion and flooding hazards along the California Coast. Other aspects of climatic changes, such as increased wave heights and storm activity, could exacerbate the effects of higher sea level. The rise in sea level itself will not only drown existing beaches and shores, but it will also result in a recession of the shoreline landward, thereby endangering public and private resources. Both building sites are located well above the area expected to be impacted by sea level rise and the associated wave runup.

- (e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The project site is not located within a defined groundwater basin as determined by the California Department of Water Resources Bulletin 118. The project will be conditioned to comply with relevant provisions of the CCRWQCB Basin Plan.

Conclusion

As specified above for water quality, existing regulations and/or required plans will adequately address surface water quality impacts during construction and permanent use of the project. No additional measures above what are required by ordinance and state laws are needed to protect water quality.

Based on the proposed amount of water to be use and the water source, no significant impacts from water use are anticipated.

Mitigation

None are required.

Sources

See Exhibit A.

Initial Study – Environmental Checklist

XI. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Surrounding uses are identified on Page 2 of the Initial Study. The proposed project was reviewed for consistency with policy and/or regulatory documents relating to the environment and appropriate land use (e.g., County CZLUO, Estero Area Plan, SLOAPCD CEQA Handbook, etc.). Referrals were sent to outside agencies to review for policy consistencies (e.g., County Fire/CAL FIRE for Fire Code, SLOAPCD for Clean Air Plan, etc.).

The proposed project is subject to the following Land Use Standard(s):

23.04.118 Blufftop Setbacks

23.04.122 Measurement of Height

23.05.020 Grading

23.05.034 Grading Standards

23.05.140 - Archeological Resources Discovery

23.07.060 Flood Hazard Area

23.07.160 Sensitive Resource Area

23.07.170 Environmentally Sensitive Habitats

23.07.085 - Review of Geology Report

The project is also subject to the following combining designations:

- Flood Hazard. *As discussed in Section IX, Hazards, all of the project components are located outside the areas subject to the 100-year flood.*
- Coastal Zone;
- Coastal Zone Creek or Stream;
- Sensitive Resource Area;

Initial Study – Environmental Checklist

Discussion

- (a) *Will the project physically divide an established community?*

Based on the project description, the project will not divide an established community.

- (b) *Will the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

Single family residences, such as those contemplated by this project, are allowed in the Agriculture land use category. The project, as it may be conditioned, is consistent with the CZLUO and with the applicable Planning Area Standards of the Estero Area Plan.

Conclusion

The project, as it may be conditioned, is consistent with relevant adopted plans and policies.

Mitigation

No mitigation measures are required.

Sources

See Exhibit A.

Initial Study – Environmental Checklist

XII. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Mineral products historically produced in the county have included petroleum, natural gas, mercury, gypsum, sand and gravel, construction stone, and clay.

Discussion

- (a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*
- (b) *Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

The project site does not include any of the formally recognized areas potentially available for resource extraction, as shown on the Estero Area Plan Combining Designation Map.

Conclusion

The project will have no effect on the availability of mineral resources.

Mitigation

No mitigation measures are required.

Sources

See Exhibit A.

Initial Study – Environmental Checklist

XIII. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project result in:</i>				
(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The existing ambient noise environment is characterized by intermittent vehicle noise from traffic on Highway 1 and from agricultural activities surrounding the project site. Noise-sensitive land uses typically include residences, schools, nursing homes, and parks. The nearest existing noise-sensitive land use are residences located approximately 1 mile to the east. Therefore, there are no sensitive receptors in the vicinity of the project site where construction activities are proposed, except for pinnipeds and southern sea otters (see Section 4. Biological Resources).

There are no significant stationary sources of noise in the area. The project site is not located in an airport overflight review area.

The project is subject to the County's standards for exterior noise provided in CZLUO Section 23.06.044 (Table 13).

Table 13 -- Maximum Allowed Exterior Noise Level Standards

Sound Levels	Daytime 7 a.m. to 10 p.m.	Nighttime ¹ 10 pm. To 7 a.m.
Hourly Equivalent Sound Level (Leq, dB)	50	45
Maximum Level, dB	70	65

1. Applies only to uses that operate or are occupied during nighttime hours.

Initial Study – Environmental Checklist

Discussion

- (a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Temporary (Construction Related) Noise. Project construction activities will generate short-term construction noise. Noise generated during the construction period would be temporary in nature and limited to the daytime hours of 7:00 a.m. to 9:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturday or Sunday, in accordance with County construction noise exception standards (LUO 23.06.042 d.). Due to its limited duration and compliance with construction time limits set out in the LUO, project construction would not conflict with surrounding uses or nearby noise-sensitive receptors.

Permanent Operational Noise. Two new single family dwellings will increase traffic on Highway 1. However, the increase is not expected to generate significant noise.

A portion of the project site is within close proximity to a transportation noise source (Highway 1) and development within the following distances from the noise source will exceed the County's acceptable exterior noise threshold of 60 dBs for sensitive uses as follows:

- Areas within the 60 dB to 65 dB range - 117 feet from road centerline, and closer.

This portion of the site will not be developed. All future development will occur on the opposite (south) side of the site approximately 1,400 to 2,700 feet away from the noise source.

- (b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

The project does not propose pile driving or other high impact activities that would generate substantial groundborne noise or groundborne vibration during construction.

- (c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The project site is not located within a designated Airport Review Area. Therefore, impacts associated with proximity to the airport are considered less than significant.

Conclusion

Short-term construction-related noise would be limited in nature and duration and would only occur during appropriate daytime hours. Noise associated with ongoing operations is expected to be less than significant.

Mitigation

None are required.

Sources

See Exhibit A.

Initial Study – Environmental Checklist

XIV. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

In its efforts to provide for affordable housing, the County currently administers the Home Investment Partnerships (HOME) Program and the Community Development Block Grant (CDBG) program, which provides limited financing to projects relating to affordable housing throughout the county. The County's Inclusionary Housing Ordinance requires provision of new affordable housing in conjunction with both residential and nonresidential development and subdivisions.

Discussion

- (a) *Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*
- (b) *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The project proposes two single family residences. The general scope and scale of the proposed development would not directly or indirectly induce substantial population growth in the area and would not result in a need for a significant amount of new housing nor displace any housing in the area. In addition, the project would be subject to inclusionary housing fees to offset any potential increased need for housing in the area. Therefore, impacts to housing and population would be *less than significant*.

Conclusion

No significant population and housing impacts would occur as a result of the proposed project.

Mitigation

None are required.

Sources

See Exhibit A.

Initial Study – Environmental Checklist

XV. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Fire Protection. The nearest County fire station is located at 108 Chaney Avenue in Cayucos, about 4 miles to the south. According to CalFIRE, emergency response times to the project site are 10-15 minutes. The response times are within the performance standards as outlined in the Cal Fire/San Luis Obispo County Strategic Plan.

Law Enforcement. The unincorporated area south of the City of San Luis Obispo relies on the County Sheriff and the California Highway Patrol for police protection services. Police protection is provided by the County Sheriff which has a sub-station at 2099 10th St, Los Osos. Other services include investigative and emergency dispatch services. Response times for the Sheriff's office vary, based on allocated personnel, existing resources, time and day of week and prioritized calls for law enforcement services. Response times to the project site are expected to be 10 – 15 minutes or more.

Additional police protection services are provided by the California Highway Patrol (CHP). The nearest Highway Patrol office is located near the California Boulevard-Highway 101 interchange in San Luis Obispo.

Schools. The project is located within the Coast Unified School District.

Solid Waste. Collection and recycling services within the San Luis Obispo area transport solid waste to Cold Canyon Landfill at 2268 Carpenter Canyon Road, between the cities of San Luis Obispo and Arroyo Grande.

Initial Study – Environmental Checklist

At Cold Canyon Landfill, waste is processed at the Resource Recovery Park (RRP) and Materials Recovery Facility (MRF). The landfill does not compost, but green waste and wood waste are processed (chipped/ground) for either use as cover for the working face of the landfill, or being hauled to another out-of-county facility. Commercial operations that use roll-off services and/or construction and demolition waste removal services may choose any permitted hauler.

A public facility fee program (i.e., development impact fee program) has been adopted to address impacts related to public facilities (county) and schools (State Government Code 65995 et seq.). Fees are assessed annually by the County based on the type of proposed development and proportional impact and collected at the time of building permit issuance. Fees are used as needed to finance the construction of and/or improvements to facilities required to the serve new development.

Discussion

- (a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

Fire protection?

The project will be conditioned to comply with all fire safety rules and regulations including the California Fire Code and Public Resources Code prior to issuance of building permits. The project was reviewed by CalFIRE (letter of December 21, 2017 from Tony Gomes). They have recommended that the project be conditioned to comply with CalFIRE requirements prior to building permit issuance. Based on the limited amount of development proposed, the project would not result in a need for new or altered fire protection services. In addition, the project would be subject to development impact fees to offset the project's contribution to demand for fire protection services. Therefore, impacts would be *less than significant*. Additional information regarding fire hazard impacts is discussed in Section XX., Wildfires.

Police protection?

The project will be subject to development impact fees to offset the project's contribution to the cumulative demand on law enforcement services. Therefore, impacts related to police services would be *less than significant*.

Schools? Parks? Other public facilities?

Based on the project description, the project is not expected to generate additional population to the area that would require the construction of additional schools, parks or other public facilities.

Conclusion

Regarding cumulative effects, public facility (County) and school (State Government Code 65995 et seq.) fee programs have been adopted to address this impact, and will reduce the cumulative impacts to less-than-significant levels. Therefore, no mitigation measures beyond adopted programs are necessary.

Mitigation

No additional mitigation measures are required.

Sources

See Exhibit A.

Initial Study – Environmental Checklist

XVI. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The project will be located on a privately-owned parcel and would not be open to the general public. The County's Parks and Recreation Element does not show a potential trail corridor on the project site.

Discussion

- (a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*
- (b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The small number of residents accommodated by the project are not expected to increase the demand on existing or planned recreational facilities in the County. The County's Parks and Recreation Element does not show a potential trail through the proposed project.

The California Coastal Trail is identified along the State Highway 1 right of way along the very northern edge of the property. The California Coastal Commission has required the adjacent westerly parcel to offer an easement for the California Coastal Trail. This adjacent easement is tentatively located along the top of the ridge and would abut the subject site just above and north of the residence on Proposed Parcel 2. This project proposes two 10' public coastal trail route options to connect to the adjacent trail on the neighboring parcel; one route cutting across the ridge straight downwards across Parcel 2 and a less steeper option along the access road (Figure 10). This project will be conditioned to provide the connection and to extend the easement through the project site as determined by the California Coastal Commission in coordination with the Parks Department.

Conclusion

The project would not induce population growth or create a significant need for additional park or recreational facilities. In addition, the dedication of an easement for the proposed California Coastal Trail will further reduce the *less than significant* project impacts.

Initial Study – Environmental Checklist

Mitigation

No mitigation measures are required.

Sources

See Exhibit A.

Initial Study – Environmental Checklist

XVII. TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Access to the project site is provided by a two-lane unimproved roadway (the southern extension of Villa Creek Road) through the adjoining Abalone Farm property to Highway 1. The County has established the acceptable Level of Service (LOS) "C" or better on rural roads. The existing road network in the area (Highway 1) is operating at an acceptable level. Based on existing road speeds and configuration (vertical and horizontal road curves), sight distance at the intersection of Villa Creek Road and Highway 1 is considered acceptable.

Referrals were sent to County Public Works and Caltrans. No significant traffic-related concerns were identified. Caltrans will issue an encroachment permit for any improvement necessary at Alexander and Highway 1.

Discussion

- (a) *Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Construction Impacts. Construction related traffic will increase during the morning and afternoon peak hours on Highway 1 and through the Abalone Farm property. Based on the project description, it is expected that as many as 3 workers may be arriving and leaving the project site on a typical construction work day. Assuming 3 PM peak hour trips on Highway 1, traffic will increase by less than 1% per day for a construction timeframe of one to two months. The temporary increase in traffic will not reduce the level of service on Highway 1.

Initial Study – Environmental Checklist

Operational Impacts

The proposed project is estimated to generate approximately 9.8 average daily trips per residence, a total of 19.6 trips per day, or about 3 trips during the afternoon peak hour. The additional PM peak hour trips on Highway 1 will increase the traffic volume by less than 1% per day. The increase in traffic will not reduce the level of service which will remain within the standard set by the General Plan Circulation Element.

The project does not conflict with adopted policies, plans and programs on transportation. The project will be subject to applicable road fees as adopted by the Board of Supervisors to fund certain regional road improvements targeted to support community buildout over time. project is within the

- (b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

The project will not be inconsistent with CEQA Guidelines Section 15064.3 which sets forth criteria for analyzing transportation impacts by applying a threshold of significance based on vehicle miles traveled.

- (c) *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The project poses no significant traffic safety concerns. There is a clear line of sight in both directions at the Highway 1 project entrance.

- (d) *Result in inadequate emergency access?*

Based on the project description and project location, adequate emergency access can be provided to the project site and surrounding properties.

Conclusion

No project specific significant traffic impacts were identified. With the payment of any applicable traffic impact fees collected by the County of San Luis Obispo, project impacts will be less than significant and less than cumulatively considerable. Therefore, no mitigation measures beyond adopted programs are necessary.

Mitigation

No additional mitigation measures are required.

Sources

See Exhibit A.

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XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in 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:				
(i) 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 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

In July, 2015, the legislature added the new requirements to the CEQA process regarding tribal cultural resources in Assembly Bill 52 (Gatto, 2014). By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process.

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Discussion

- (a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in 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:*
- (a-i) *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 5020.1(k)?*
- (a-ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

Resources on the project site listed, or eligible for listing, in the California Register of Historic Resources, or in a local register of historical resources are discussed in *Section IV., Cultural Resources*. Based on the Phase I, Extended Phase I and Phase II archaeological investigations performed for the project site, there are significant resources on the project site within the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

Lastly, in accordance with AB 52 cultural resources requirements, outreach to numerous Native American tribes has been conducted: Xolon Salinan, yak tiṭu tiṭu yak tịhini Northern Chumash, Coastal Chumash, and Northern Chumash Tribal Council. No significant resources within the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 relating to the significance of the resource to a California Native American tribe were identified.

Conclusion

County staff conducted a site consultation with representatives from the Northern Chumash Tribal Council and the applicant agent. The tribal members walked the site and evaluated the test pits and surrounding elements. The tribal representatives recommended avoidance and minimizing site disturbance on the marine terrace. Based on this feedback, the applicant conducted an extended Phase 1 assessment (Applied Earthworks, 2019) to define the boundaries of the prehistoric site and the depth of cultural deposits in order to evaluate the feasibility of relocating and/or redesigning the septic system. This assessment presented subsurface information that was used to refine the septic design and develop mitigations for the development on Parcel 1.

With incorporation of the mitigation measures recommended in *Section IV., Cultural Resources*, the project will have a less than significant impact on tribal cultural resources.

Mitigation

None required beyond the measures required in Section IV. Cultural Resources.

Sources

See Exhibit A.

Initial Study – Environmental Checklist

XIX. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The setting for water supply is discussed in Section X. Hydrology. The project site is served by an on-site well. The proposed residence will be served by septic leach fields.

Discussion

- (a) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

The project will be served by the existing well. A new water line will be trenched from the well to each single family dwelling. With regard to wastewater, each dwelling will have a new septic leach field. The project proposes an engineered wastewater discharge system for the dwelling on

Initial Study – Environmental Checklist

Proposed Parcel 1 site and a conventional septic system and conventional leach field system on the Proposed Parcel 2 home site.

With the engineered wastewater system, household sewage will flow into a processing tank where it will be separated into scum, sludge, and liquid effluent. The effluent will then be filtered and the impurities removed during. After a recirculating treatment, the effluent will be discharged to the soil via irrigation or a drainfield.

The drainfield is an array of perforated pipes placed in sand, gravel or plastic chambers. The effluent flows trickle into the sand and therefore significantly reduce the amount of water that is leached into the ground.

Percolation tests were performed by GeoSolutions in December 2000 for both building sites. The test results showed percolation rates over 120 minutes per inch for both proposed leach field locations. The percolation rate is considered very slow, and the soils are considered “tight”. Without proper engineering, effluent will have a tendency to pond or stagnate, and not filter adequately through the soil to properly break down the effluent into harmless components. Therefore, plans will need to be submitted to the county for approval of an engineered septic system or an acceptable design to the Regional Water Quality Control Board, and which meets the CPC/Basin Plan criteria. Due to the slow percolation rates, conventional septic systems and leach field disposal is not feasible. Based on the following project conditions or design features, wastewater impacts can be mitigated by the use of an approved alternative system.

- ✓ The project has sufficient land area per the County’s Land Use Ordinance to support an on-site system;
- ✓ The soil’s percolation rate is over 120 minutes per inch;
- ✓ The leach lines are outside of the 100-year flood hazard area;
- ✓ There is adequate distance between proposed leach lines and existing or proposed wells;
- ✓ The leach lines are at least 100 feet from creeks and water bodies.
- ✓ An approved alternative system subject to review and approval by the RWQCB and the County Department of Planning and Building will be required prior to issuance of a building permit.

Prior to building permit issuance and/or final inspection of the wastewater system, the applicant will be required to submit to the County for review and approval, an alternative disposal system in compliance with the County Plumbing Code/ Central Coast Basin Plan, including any above-discussed information relating to potential constraints. Therefore, based on the project being able to comply with these regulations and mitigation measures, potential wastewater impacts are considered *less than significant*.

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- (b) *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Water for the project site will be provided by an existing on-site well (see Section X. Hydrology); a well pump test was performed that confirms that the well can produce sufficient water to serve the project.

- (c) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Not applicable. Wastewater disposal will be accomplished by on-site septic system.

- (d) *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Cold Canyon Landfill provides solid waste disposal for the Cayucos area. Currently, the maximum permitted throughput to the landfill is limited to 1,650 tons per day (CalRecycle 2016). However, the Cold Canyon Landfill recently received approvals from the County and the state in 2013 to allow continued waste expansion and disposal operations through 2040. With planned expansions through 2040, the maximum total throughput would increase to 2,050 tons (City of San Luis Obispo 2014). The landfill has a design capacity of 23,900,000 cubic yards (cy) and a remaining capacity of 14,500,000 cy, or 60.7 percent which is more than enough to serve the project.

- (e) *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

The project will be operated consistent with applicable federal, state and local solid waste management and reduction regulations.

Conclusion

No significant impacts to utilities and service systems are expected.

Mitigation

None are required.

Sources

See Exhibit A.

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XX. WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</i>				
(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The project site is located in an area with a “Moderate” fire hazard as determined by CalFIRE. The surrounding properties are engaged in grazing and abalone farming that pose a relatively low risk for wildfire.

*Discussion**(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?*

Based on the project description and location, the project is not expected to impair an adopted emergency response plan or evacuation plan.

(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The prevailing winds on the project site are from the south and west during the daytime hours and slightly onshore at night. A wildfire originating on the grasslands of the project site or surrounding properties could expose project occupants to pollutant concentrations associated with smoke.

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However, given the nature of the surrounding land uses and the moderate risk of wildfire, the project is not expected to exacerbate wildfire risks.

- (c) *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

The project was reviewed by CalFIRE for conformance with relevant fire protection standards (letter of December 21, 2017 from Tony Gomes). The project is not expected to require any fire protection infrastructure other than that required by the California Building Code and the Uniform Fire Code. The recommendations of CalFIRE will be incorporated as conditions of approval.

- (d) *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Based on the project description, the project is not expected to expose people or structures to significant risks associated with post-fire conditions.

Conclusion

The project is expected to have a less than significant impact relating to wildfire risk.

Mitigation

No mitigation measures are required.

Sources

See Exhibit A.

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XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) 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 or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) 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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The setting is provided in each of the topical sections of this Initial Study.

Discussion

- (a) *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 or eliminate important examples of the major periods of California history or prehistory?*

As discussed in each of the preceding topical sections, the project would result in potentially significant impacts to aesthetics/visual resources, biological resources, cultural resources, geology and soils but, with recommended mitigations, would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to

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eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Compliance with mitigation measures BIO-1 through BIO-8 would mitigate potential direct and indirect impacts to special-status species, and nesting birds.

- (b) *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)?*

The State CEQA Guidelines define cumulative impacts as "two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts." Section 15355 of the CEQA Guidelines further states that individual effects can be various changes related to a single project or the change involved in a number of other closely related past, present, and reasonably foreseeable future projects. The discussion of cumulative impacts must reflect the severity of the impacts as well as the likelihood of their occurrence. However, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. Furthermore, the discussion should remain practical and reasonable in considering other projects and related cumulatively considerable impacts. Furthermore, per State CEQA Guidelines, Section 15130 (a) (1), an EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.

The State CEQA Guidelines allow for the use of two different methods to determine the scope of projects for the cumulative impact analysis:

- List Method - A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency (Section 15130).
- General Plan Projection Method - A summary of projections contained in an adopted General Plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact (CEQA Guidelines §15130).

This MND examines cumulative effects using the General Plan Projection method to evaluate the cumulative environmental effects of the project within the context of other reasonably foreseeable cannabis projects and regional growth projections.

The most recent projection of regional growth for San Luis Obispo County is the 2050 Regional Growth Forecast (RGF) for San Luis Obispo County prepared and adopted by the San Luis Obispo Council of Governments (SLOCOG) in 2017. Using the Medium Scenario, the total County population, housing and employment for both incorporated and unincorporated areas is projected to increase at an average annual rate of 0.50 percent per year. Between 2015 and 2050 the County's population is projected to increase by 44,000, or about 1,260 residents per year. Within the unincorporated area, the population is expected to increase by about 19,500 residents, or about 557 per year. Employment is expected to increase by about 6,441, or about 184 per year.

The project will accommodate about 6 total residents. The small increase in projected population is not expected to result in an increased demand for employment or housing throughout the county. Therefore, when considered with the potential impacts of other reasonably foreseeable projects in

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the unincorporated county, the contribution of the subject project to impacts related to housing and population is considered less than cumulatively considerable.

Public facility (County) and school (State Government Code 65995 et seq.) fee programs have been adopted to address this impact, and will reduce the cumulative impacts to less-than-significant levels.

Transportation

The project will be required to pay applicable road improvement fees to the address cumulative traffic impacts. Therefore, when considered with the potential impacts of other reasonably foreseeable projects in the unincorporated county, the contribution of the subject project to roadway impacts is considered less than cumulatively considerable.

- (c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Environmental impacts that may have an adverse effect on human beings, either directly or indirectly, are analyzed in each of the preceding topical sections of this initial study.

Conclusion

With mitigations, project impacts would be less than significant and less than cumulatively considerable.

Sources

See Exhibit A.

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Exhibit A - Initial Study References and Agency Contacts

The County Planning Department has contacted various agencies for their comments on the proposed project. With respect to the subject application, the following have been contacted (marked with an ☒) and when a response was made, it is either attached or in the application file:

Contacted	Agency	Response
☒	County Public Works Department	In File**
☒	County Environmental Health Services	In File**
☒	County Agricultural Commissioner's Office	In File**
☐	County Airport Manager	Not Applicable
☐	Airport Land Use Commission	Not Applicable
☐	Air Pollution Control District	Not Applicable
☐	County Sheriff's Department	Not Applicable
☐	Regional Water Quality Control Board	Not Applicable
☒	CA Coastal Commission	None
☒	CA Department of Fish and Wildlife	None
☒	CA Department of Forestry (Cal Fire)	In File**
☒	CA Department of Transportation	None
☐	Community Services District	Not Applicable
☒	Other State Parks	In File**
☒	Other AB52	In File**

** "No comment" or "No concerns"-type responses are usually not attached

The following checked ("☒") reference materials have been used in the environmental review for the proposed project and are hereby incorporated by reference into the Initial Study. The following information is available at the County Planning and Building Department.

☒ Project File for the Subject Application	☐ Design Plan
<u>County Documents</u>	☐ Specific Plan
☐ Coastal Plan Policies	☐ Annual Resource Summary Report
☒ Framework for Planning (Coastal/Inland)	☐ Circulation Study
☒ General Plan (Inland/Coastal), includes all maps/elements; more pertinent elements:	<u>Other Documents</u>
☒ Agriculture Element	☒ Clean Air Plan/APCD Handbook
☒ Conservation & Open Space Element	☐ Regional Transportation Plan
☐ Economic Element	☒ Uniform Fire Code
☐ Housing Element	☐ Water Quality Control Plan (Central Coast Basin – Region 3)
☒ Noise Element	☒ Archaeological Resources Map
☒ Parks & Recreation Element/Project List	☐ Area of Critical Concerns Map
☐ Safety Element	☒ Special Biological Importance Map
☒ Land Use Ordinance (Inland/Coastal)	☒ CA Natural Species Diversity Database
☒ Building and Construction Ordinance	☒ Fire Hazard Severity Map
☒ Public Facilities Fee Ordinance	☒ Flood Hazard Maps
☐ Real Property Division Ordinance	☒ Natural Resources Conservation Service Soil Survey for SLO County
☐ Affordable Housing Fund	☒ GIS mapping layers (e.g., habitat, streams, contours, etc.)
☐ Airport Land Use Plan	☐ Other
☒ Energy Wise Plan	
☒ Estero Area Plan	

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In addition, the following project-specific information and/or reference materials have been considered as a part of the Initial Study:

Project application materials which are incorporated herein by reference as though set forth in their entirety. The application materials are available for review at the Department of Planning and Building located at 76 Osos St #200, San Luis Obispo, CA.

Visual Impact Analysis, SWCA, August 2017

Biological Survey, V.L. Holland, May 2001

Historical Resources of the Pierson Ranch, Greenwood and Associates, April 2005

Cultural Resource Survey and Impact Assessment, C.A. Singer, April 2, 2001

Archaeological Testing and Evaluation, C.A. Singer, May 15, 2005

Applied EarthWorks, Inc. January 2019, *Cultural Resource Investigations at CA-SLO-2089 on the Pierson Ranch*

Cayucos, San Luis Obispo County, California

Supplemental Information, C.A. Singer, July 23, 2005

Percolation Testing, GeoSolutions, December 4, 2000

Geosolutions, Inc., March 7, 2001, *Soils Engineering, Lower (Coastal Bluff) Site*

Geosolutions, Inc., March 26, 2001, *Engineering Geology, Lower (Coastal Bluff) Site*

Geosolutions, Inc., March 20, 2001, *Coastal Bluff Evaluation*

Cleath and Associates, March 22, 2006, *Coastal Bluff Suitability Evaluation*

Cleath-Harris Geologists, February 2, 2011, *Landslide Conditions, Supplement No. 2*

Geosolutions, Inc., March 7, 2001, *Soils Engineering, Upper (Hillside) Site*

Geosolutions, Inc., April 2, 2001, *Engineering Geology, Upper (Hillside) Site*

Geosolutions, Inc., April 2, 2001, *Engineering Geology, Roadway Alignment*

Peer review of landslide conditions risk assessment, Geoinsite, Inc., March, 2009, February 15, 2011, February 8, 2011

Earth Systems Pacific, July 23, 2019, *Geologic Hazards Report Proposed Residences Pierson Property China Harbor Ranch*

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Exhibit B - Mitigation Summary

The applicant has agreed to incorporate the following measures into the project. These measures become a part of the project description and therefore become a part of the record of action upon which the environmental determination is based. All development activity must occur in strict compliance with the following mitigation measures. These measures shall be perpetual and run with the land. These measures are binding on all successors in interest of the subject property.

Aesthetics

- AES-1 Color & Material Selection - Prior to issuance of grading and/or construction permits,** the applicant shall submit residence plans and elevations to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- Exterior walls and roofing of the residence, water tank and structures on site shall be limited to dark muted earth- tones. Exterior colors shall be no brighter than 6 in chroma and value on the Munsell Color Scale on file in the County of San Luis Obispo Department of Planning and Building.
- AES-2 Water Tanks - Prior to issuance of a construction permit and or grading permit,** the applicant shall submit site plans to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- The water tank on Proposed Parcel 2 shall be placed underground. If undergrounding is not feasible, it shall be painted with dark muted colors.
- AES-3 Retaining Walls - Prior to issuance of a grading permit and/or construction permit,** the applicant shall submit driveway plans, elevations, and color boards to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- Between driveway Stations 6+50 to 12+00, and 20+00 to the residence on Proposed Parcel 2, the surface of the driveway shall be either colored concrete, colored asphalt, or colored open cell pavers such as "Grasscrete." The color of the material comprising the roadway surface shall be a muted earth tone that matches the color of the surrounding soil.
 - General driveway retaining wall color shall be dark muted brown-grey, and shall be no brighter than 6 in chroma and value on the Munsell Color Scale on file in the County of San Luis Obispo Department of Planning and Building.
 - Driveway retaining walls shall have a coarse textured surface, such as Allan Block or similar.
- AES-4 Natural Looking Erosion Control Seeding - Prior to issuance of a grading permit and/or a construction permit,** the applicant shall submit comprehensive erosion control plans to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- Erosion control seeding shall be applied to all disturbed areas along the driveway. The erosion control/seeding plan should be prepared by a qualified erosion control and

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revegetation expert. The erosion control strategy should include a seed mix consisting of species that will visually resemble the vegetation found on the adjacent hillsides.

AES-5 **Height Restriction** - No other structures or site amenities shall be built or placed on the project site which exceed the allowable heights shown on *Figure 21 Max. Allowable Heights – Visual Impact Assessment, SWCA 2017 - below*. Site amenities or other structures include but are not limited to sheds, outbuildings, patio structures, carports, tanks, walls, etc.

AES-6 **Landscape Restriction** - No trees or shrubs shall be planted on the project site which have the potential at maturity to exceed the allowable heights shown on *Figure 21 Max. Allowable Heights – Visual Impact Assessment, SWCA 2017 - below*. No palm trees or Italian cypress shall be planted anywhere on the project sites, including along driveways. No lawn or turf shall be planted anywhere on the project where it would be visible from Highway 1 or Estero Bluffs State Park.

Figure 21. Maximum allowable heights for other structures, site amenities and landscaping.



Figure 21 excerpted from project's Visual Impact Assessment, prepared by SWCA, 2017

AES-7 **Fencing** - No solid fencing shall be installed where it can be seen from Highway 1. Fencing shall have an open character and be agricultural or rural in appearance. Fencing colors shall be generally earth-tone, and white or light-colored materials or paint shall not be used.

AES-8 **Nighttime Lighting** - **Prior to issuance of construction permits**, the applicant shall submit a light pollution prevention plan (LPPP) to the County Planning Department for approval that incorporates the following measures to reduce impacts related to night lighting:

- Prevent all interior lighting from being detected outside the facilities between the

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period of 1 hour before dusk and 1 hour after dawn;

- b. All facilities employing artificial lighting techniques shall include shielding and/or blackout tarps that are engaged between the period of 1 hour before dusk and 1 hour after dawn and prevent any and all light from escaping;
- c. Any exterior path lighting shall be located and designed to be motion activated, and be directed downward and to the interior of the site to avoid the light source from being visible off-site. Exterior path lighting shall be “warm-white” or filtered
- d. Any exterior lighting used for security purposes shall be motion activated, be located and designed to be motion activated, and be directed downward and to the interior of the site to avoid the light source from being visible off-site, and shall be of the lowest-lumen necessary to address security issues.

AES-9 Glare Reduction - Prior to issuance of construction permits, the applicant shall submit window plan and specification to the County Planning Department for approval showing no reflective coatings shall be used on exterior south and southwest facing windows.

Air Quality

AQ-1 Fugitive Dust Emissions. The following measures shall be implemented to minimize construction-generated emissions. These measures are based on SLOAPCD standard mitigation measures and would help to ensure compliance with the SLOAPCD’s 20% opacity limit (SLOAPCD Rule 401) and nuisance rule (SLOAPCD Rule 402). These measures shall be shown on grading and building plans:

- a. Construction of the proposed project shall use low-VOC content paints not exceeding 50 grams per liter.
- b. To the extent locally available, prefinished building materials or materials that do not require the application of architectural coatings shall be used.
- c. Reduce the amount of the disturbed area where possible.
- d. Use water trucks, APCD approved dust suppressants (see Section 4.3 in the CEQA Air Quality Handbook), or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the District’s limit of 20% opacity for greater than 3 minutes in any 60-minute period. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible. Please note that since water use is a concern due to drought conditions, the contractor or builder shall consider the use of an APCD-approved dust suppressant where feasible to reduce the amount of water used for dust control. For a list of suppressants, see Section 4.3 of the CEQA Air Quality Handbook.
- e. All dirt stock-pile areas should be sprayed daily as needed.
- f. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
- g. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established.
- h. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD.

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- i. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- j. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- k. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.
- l. Install wheel washers at the construction site entrance, wash off the tires or tracks of all trucks and equipment leaving the site, or implement other SLOAPCD-approved methods sufficient to minimize the track-out of soil onto paved roadways.
- m. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- n. The burning of vegetative material shall be prohibited. Effective February 25, 2000, the APCD prohibited developmental burning of vegetative material within San Luis Obispo County. If you have any questions regarding these requirements, contact the SLOAPCD Engineering and Compliance Division at (805) 781-5912.
- o. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition.
- p. When applicable, portable equipment, 50 horsepower (hp) or greater, used during construction activities shall be registered with the California statewide portable equipment registration program (issued by the California Air Resources Board) or be permitted by the APCD. Such equipment may include: power screens, conveyors, internal combustion engines, crushers, portable generators, tub grinders, trammel screens, and portable plants (e.g, aggregate plant, asphalt plant, concrete plant).

Biological Resources

BIO-1 Pinnipeds/ Otter Avoidance. Construction activities shall not take place during the pinniped pupping season, March 1 through May 31st of each year. All construction activities shall be set back from the cliff to avoid visual impacts to seals using the haul out area identified on the adjacent parcel to the northwest. The setback area and distance shall be determined by a qualified marine mammal biologist prior to construction activities.

BIO-2 Pinnipeds/ Otter Avoidance. Pedestrian traffic above the seal haul out area shall be limited to the area outside the setback. No dogs are allowed in the area near the haul out and pupping areas. Pedestrians shall stay well back of the cliff and out of sight of the shoreline during low tide when the seals do haul out. Fencing shall be installed so that dogs and pedestrians do not have access to the shoreline where the haul out areas are.

BIO-3 Coastal Scrub Grassland. Development on Proposed Parcel 1 will impact over an acre of coastal scrub. To mitigate the impacts to native grassland-coastal scrub, disturbed areas on the marine terrace that are currently dominated by various weeds shall be restored in native grassland to off-

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set the loss of coastal scrub - grassland associated with development of residences within the identified building envelopes

BIO-4 Fencing. Coastal scrub and wetland/riparian areas that occupy entire site shall be fenced so that cattle no longer have access to these sensitive areas.

BIO-5 Limitation on Construction Area. Construction and development shall be restricted to the proposed building sites, water tank sites, roads and driveways as shown on the approved plans. The remainder of the site shall remain in permanent open space through an open space easement agreement with the County.

BIO-6 Restoration & Revegetation Plan. At time of construction permit application, a restoration and revegetation plan for California coastal scrub-native grassland and San Luis County Morning Glory shall be prepared for review and approval by the County and implemented on the disturbed areas of the marine terrace. The areas of disturbance along the access road shall be revegetated with a mixture of native grasses and forbs indigenous to the site including the rare San Luis Obispo County Morning Glory. **Prior to grading of the area,** the San Luis Obispo County morning glories within the building area shall be salvaged and used to revegetate the areas along the road and other disturbed areas on the site.

BIO-7 Open Space Easement. Prior to issuance of a grading permit, the applicant shall execute and record an open space easement for all areas outside designated building envelopes and driveways, in a form approved by County Counsel and the Executive Director of California Coastal Commission in conformance with applicable Coastal Act regulations. The open space easement shall include a formal legal description and graphic depiction of subject properties including Ellyslly Creek habitat area. Development shall be prohibited in the open space area except for:

- a. Restoration, protection, and enhancement of native riparian habitat and grassland habitat consistent with the terms of the final Native Grassland and San Luis County Morning Glory restoration and revegetation plan.
- b. Associated improvements for the California Coastal Trail

Cultural Resources

CR-1 Limit Ground Disturbance on Parcel 1 – New ground disturbance associated with improvement of the existing access roadway shall be limited to the minimum required by Cal Fire driveway safety standards. Ground disturbance associated with construction of the dwelling and septic leach field shall be limited to the area outside of the boundaries associated with site CA-SLO-2089. If the proposed leach field cannot be relocated or an engineered system cannot be feasibly installed, a Phase III archaeological data recovery shall be undertaken for this area as described in mitigation measure CR-6.

CR-2 Cultural Resources - Monitoring Plan. Prior to issuance of grading and/or construction permit(s), the Applicant shall submit a Monitoring Plan, prepared by a County-approved archaeologist, for review and approval by the County Department of Planning and Building. The intent of this Plan is to monitor earth-disturbing activities in areas identified as potentially sensitive for cultural resources, per the approved Plan. The Monitoring Plan shall include at a minimum:

- a. List of personnel involved in the monitoring activities;

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- b. Inclusion of involvement of the Native American community, as appropriate;
- c. Description of how the monitoring shall occur;
- d. Description of frequency of monitoring (e.g., full-time, part time, spot checking);
- e. Description of what resources are expected to be encountered;
- f. Description of circumstances that would result in the halting of work at the project site (e.g., What is considered “significant” archaeological resources?);
- g. Description of procedures for halting work on the site and notification procedures; and
- h. Description of monitoring reporting procedures.

Prior to construction/ground-disturbing activities, the Applicant shall ensure that any construction-related subsurface excavation in sensitive areas are tested by a County-approved archaeologist. Should buried resources be identified, further testing or avoidance shall be required; if avoidance is not possible, mitigation through data recovery shall be required (as defined in Mitigation Measure CR-6 - Cultural Resources - Phase III data recovery program).

CR-3 Crew Education - The monitoring plan shall also include provisions defining education of the construction crew and establishing protocol for treating unanticipated finds. In consultation with a County-approved archaeologist, the Applicant shall provide cultural resources awareness training to all field crews and field supervisors. This training will include a description of the types of resources that may be found in the project area, the protocols to be used in the event of an unanticipated discovery, the importance of cultural resources to the Native American community, and the laws protecting significant archaeological and historical sites. In addition, the Applicant shall provide all field supervisors with maps showing those areas sensitive for potential buried resources.

The Project Archaeologist shall verify implementation of the Plan **during construction of improvements**. A final report on compliance shall be submitted by the archaeologist **prior to final inspection/occupancy of individual lot construction permits**.

CR-4 Cultural Resource – Construction Monitoring. During ground disturbing construction activities, the applicant shall retain a County qualified archaeologist, and working with Native American monitor to monitor these earth disturbing activities, per the approved monitoring plan. If any significant archaeological resources or human remains are found during monitoring, work shall stop within the immediate vicinity (precise area to be determined by the archaeologist in the field) of the resource until such time as the resource can be evaluated by an archaeologist and any other appropriate individuals. The applicant shall implement the mitigation as required by the Environmental Coordinator.

CR-5 Minimize Impacts. - If cultural resources are identified on site, further testing or avoidance shall be required. In consultation with the Environmental Coordinator, archeologist, Native American monitor, project redesign may be required to avoid significant impacts or reduce to a less than significant level.

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- a. Project redesigns could include, but not limited to, moving foundation elements, designing spanning foundations, reducing proposed excavation volumes, and altering proposed utility lines and connection alignments.
- b. Foundation design may need to be altered to minimize site disturbance. "Side-by-side" comparisons of disturbance and calculations of volume of cultural materials affected will be submitted to show the revised foundation design will result in the least disturbance. **The approved redesign(s) shall be verified by the County prior to construction work.**
- c. Where project must encroach within the identified cultural resource(s), incorporation of fill shall be considered. Only sufficient fill shall be placed over the site so as to allow native soils to remain undisturbed (e.g. 18 inches for residential footings, 6-8 inches for driveway construction). Clean, sterile fill, consisting of a layer of other conspicuous material (e.g. fill of a noticeable different color and texture than native soil) shall be placed over the native soil prior to placement of any other clean fill material. Native soils shall not be disturbed or compacted within the cultural resource areas. A qualified archaeologist shall be retained to oversee this work and prepare a summary report to be submitted to the County **prior to final inspection or occupancy (whichever occurs first).**
- d. If avoidance is not possible, mitigation through data recovery shall be required (as defined in Mitigation Measure CR- 6 Phase III Data Recovery Program) prior to **construction permit issuance.**
- e. Alternate mitigations may also include a combination of soil capping and Phase III Data Recovery, where feasible.
- f. If human remains are found, an agreement of Non-Disturbance of Native American burial sites may be required **prior to final inspection** to prevent future disturbance to the site(s) identified.

CR-6 Cultural Resources - Phase III Data Recovery Program. If, during site disturbance monitoring, cultural resources are discovered on site and avoidance is not possible, the applicant shall submit to the Environmental Coordinator (and possibly subject to peer review) for review and approval, a detailed research design for a Phase III (data recovery) archaeological investigation. The Phase III program shall be prepared by a qualified archaeologist approved by the Environmental Coordinator. The Phase III program shall include at least the following:

- a. Standard archaeological data recovery practices;
- b. Recommendation of sample size adequate to mitigate for impacts to archaeological site, including basis and justification of the recommended sample size. Sample size typically is 2% of the volume of disturbed area. If a lesser sample size is recommended, supporting information shall be presented that justifies the smaller sample size.
- c. Identification of location of sample sites/test units;
- d. Detailed description of sampling techniques and material recovery procedures (e.g. how sample is to be excavated, how the material will be screened, screen size, how material will be collected);
- e. Disposition of collected materials;
- f. Proposed analysis of results of data recovery and collected materials, including timeline of final analysis results;

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g. List of personnel involved in sampling and analysis.

Once approved, these measures shall be shown on all applicable construction drawings and implemented **during construction**. **Prior to final inspection**, the applicant shall provide to the County a final report on the investigation work conducted during construction.

CR-7 Cultural Resource – Completion Report. Upon completion of all monitoring/mitigation activities, and prior to occupancy or final inspection (whichever occurs first), the consulting archaeologist shall submit a report to the Environmental Coordinator summarizing all monitoring/mitigation activities and confirming that all recommended mitigation measures have been met. If the analysis included in the Phase III program is not complete by the time of final inspection, the applicant shall provide to the Environmental Coordinator, proof of financial obligation to complete the required analysis and curation of findings.

Geology and Soils

GEO-1 At the time of construction permit application, the project shall explore an alternative wastewater disposal system subject to the review and approval of the Regional Water Quality Control Board and/or County Department of Planning & Building.

**DEVELOPER'S STATEMENT FOR PIERSON
LOT LINE ADJUSTMENT/ VARIANCE/ MINOR USE PERMIT
(ED17-112)S000161L, DRC2017-00083 & D000230P**

The applicant agrees to incorporate the following measures into the project. These measures become a part of the project description and therefore become a part of the record of action upon which the environmental determination is based. All development activity must occur in strict compliance with the following mitigation measures. These measures shall be perpetual and run with the land. These measures are binding on all successors in interest of the subject property. The following mitigation measures address impacts that may occur as a result of the development of the project.

Note: The items contained in the boxes labeled "Monitoring" describe the County procedures to be used to ensure compliance with the mitigation measures.

Aesthetics

- AES-1 Color & Material Selection - Prior to issuance of grading and/or construction permits,** the applicant shall submit residence plans and elevations to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- a. Exterior walls and roofing of the residence, water tank and structures on site shall be limited to dark muted earth- tones. Exterior colors shall be no brighter than 6 in chroma and value on the Munsell Color Scale on file in the County of San Luis Obispo Department of Planning and Building.
- AES-2 Water Tanks - Prior to issuance of a construction permit and or grading permit,** the applicant shall submit site plans to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- a. The water tank on Proposed Parcel 2 shall be placed underground. If undergrounding is not feasible, it shall be painted with dark muted colors.
- AES-3 Retaining Walls - Prior to issuance of a grading permit and/or construction permit,** the applicant shall submit driveway plans, elevations, and color boards to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- a. Between driveway Stations 6+50 to 12+00, and 20+00 to the residence on Proposed Parcel 2, the surface of the driveway shall be either colored concrete, colored asphalt, or colored open cell pavers such as "Grasscrete." The color of the material comprising the roadway surface shall be a muted earth tone that matches the color of the surrounding soil.
 - b. General driveway retaining wall color shall be dark muted brown-grey, and shall be no brighter than 6 in chroma and value on the Munsell Color Scale on file in the County of San Luis Obispo Department of Planning and Building.
 - c. Driveway retaining walls shall have a coarse textured surface, such as Allan Block or similar.

- AES-4** **Natural Looking Erosion Control Seeding - Prior to issuance of a grading permit and/or a construction permit**, the applicant shall submit comprehensive erosion control plans to the County of San Luis Obispo Department of Planning and Building for review and approval showing the following:
- a. Erosion control seeding shall be applied to all disturbed areas along the driveway. The erosion control/seeding plan should be prepared by a qualified erosion control and revegetation expert. The erosion control strategy should include a seed mix consisting species that will visually resemble the vegetation found on the adjacent hillsides.
- AES-5** **Height Restriction** - No other structures or site amenities shall be built or placed on the project site which exceed the allowable heights shown on *Figure 21 Max. Allowable Heights – Visual Impact Assessment, SWCA 2017 - below*. Site amenities or other structures include but are not limited to sheds, outbuildings, patio structures, carports, tanks, walls, etc.
- AES-6** **Landscape Restriction** - No trees or shrubs shall be planted on the project site which have the potential at maturity to exceed the allowable heights shown on *Figure 21 Max. Allowable Heights – Visual Impact Assessment, SWCA 2017 - below*. No palm trees or Italian cypress shall be planted anywhere on the project sites, including along driveways. No lawn or turf shall be planted anywhere on the project where it would be visible from Highway 1 or Estero Bluffs State Park.

Figure 21. Maximum allowable heights for other structures, site amenities and landscaping.



Figure 21 excerpted from project's *Visual Impact Assessment*, prepared by SWCA, 2017

- AES-7** **Fencing** - No solid fencing shall be installed where it can be seen from Highway 1. Fencing shall have an open character and be agricultural or rural in appearance. Fencing colors shall be generally earth-tone, and white or light-colored materials or paint shall not be used.

AES-8

Nighttime Lighting - Prior to issuance of construction permits, the applicant shall submit a light pollution prevention plan (LPPP) to the County Planning Department for approval that incorporates the following measures to reduce impacts related to night lighting:

- a. Prevent all interior lighting from being detected outside the facilities between the period of 1 hour before dusk and 1 hour after dawn;
- b. All facilities employing artificial lighting techniques shall include shielding and/or blackout tarps that are engaged between the period of 1 hour before dusk and 1 hour after dawn and prevent any and all light from escaping;
- c. Any exterior path lighting shall be located and designed to be motion activated, and be directed downward and to the interior of the site to avoid the light source from being visible off-site. Exterior path lighting shall be “warm-white” or filtered
- d. Any exterior lighting used for security purposes shall be motion activated, be located and designed to be motion activated, and be directed downward and to the interior of the site to avoid the light source from being visible off-site, and shall be of the lowest-lumen necessary to address security issues.

AES-9

Glare Reduction - Prior to issuance of construction permits, the applicant shall submit window plan and specification to the County Planning Department for approval showing no reflective coatings shall be used on exterior south and southwest facing windows.

Monitoring: Required at the time of application for construction permits. Compliance will be verified by the County Department of Planning.

Air Quality**AQ-1**

Fugitive Dust Emissions. The following measures shall be implemented to minimize construction-generated emissions. These measures are based on SLOAPCD standard mitigation measures and would help to ensure compliance with the SLOAPCD's 20% opacity limit (SLOAPCD Rule 401) and nuisance rule (SLOAPCD Rule 402). These measures shall be shown on grading and building plans:

- a. Construction of the proposed project shall use low-VOC content paints not exceeding 50 grams per liter.
- b. To the extent locally available, prefinished building materials or materials that do not require the application of architectural coatings shall be used.
- c. Reduce the amount of the disturbed area where possible.
- d. Use water trucks, APCD approved dust suppressants (see Section 4.3 in the CEQA Air Quality Handbook), or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the District's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible. Please note that since water use is a concern due to drought conditions, the contractor or builder shall consider the use of an APCD-approved dust suppressant where feasible to reduce the amount of water

used for dust control. For a list of suppressants, see Section 4.3 of the CEQA Air Quality Handbook.

- e. All dirt stock-pile areas should be sprayed daily as needed.
- f. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
- g. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established.
- h. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the SLOAPCD.
- i. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- j. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- k. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.
- l. Install wheel washers at the construction site entrance, wash off the tires or tracks of all trucks and equipment leaving the site, or implement other SLOAPCD-approved methods sufficient to minimize the track-out of soil onto paved roadways.
- m. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- n. The burning of vegetative material shall be prohibited. Effective February 25, 2000, the APCD prohibited developmental burning of vegetative material within San Luis Obispo County. If you have any questions regarding these requirements, contact the SLOAPCD Engineering and Compliance Division at (805) 781-5912.
- o. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SLOAPCD Compliance Division prior to the start of any grading, earthwork or demolition.
- p. When applicable, portable equipment, 50 horsepower (hp) or greater, used during construction activities shall be registered with the California statewide portable equipment registration program (issued by the California Air Resources Board) or be permitted by the APCD. Such equipment may include: power screens, conveyors, internal combustion engines, crushers, portable generators, tub grinders, trammel screens, and portable plants (e.g, aggregate plant, asphalt plant, concrete plant).

Monitoring: Required at the time of application for construction permits. Compliance will be verified by the Air Pollution Control District and County Department of Planning and Building.

Biological Resources

- BIO-1 Pinnipeds/ Otter Avoidance.** Construction activities shall not take place during the pinniped pupping season, March 1 through May 31st of each year. All construction activities shall be set back from the cliff to avoid visual impacts to seals using the haul out area identified on the adjacent parcel to the northwest. The setback area and distance shall be determined by a qualified marine mammal biologist prior to construction activities.
- BIO-2 Pinnipeds/ Otter Avoidance.** Pedestrian traffic above the seal haul out area shall be limited to the area outside the setback. No dogs are allowed in the area near the haul out and pupping areas. Pedestrians shall stay well back of the cliff and out of sight of the shoreline during low tide when the seals do haul out. Fencing shall be installed so that dogs and pedestrians do not have access to the shoreline where the haul out areas are.
- BIO-3 Coastal Scrub Grassland.** Development on Proposed Parcel 1 will impact over an acre of coastal scrub. To mitigate the impacts to native grassland-coastal scrub, disturbed areas on the marine terrace that are currently dominated by various weeds shall be restored in native grassland to off-set the loss of coastal scrub - grassland associated with development of residences within the identified building envelopes
- BIO-4 Fencing.** Coastal scrub and wetland/riparian areas that occupy entire site shall be fenced so that cattle no longer have access to these sensitive areas.
- BIO-5 Limitation on Construction Area.** Construction and development shall be restricted to the proposed building sites, water tank sites, roads and driveways as shown on the approved plans. The remainder of the site shall remain in permanent open space through an open space easement agreement with the County.
- BIO-6 Restoration & Revegetation Plan.** At time of construction permit application, a restoration and revegetation plan for California coastal scrub-native grassland and San Luis County Morning Glory shall be prepared for review and approval by the County and implemented on the disturbed areas of the marine terrace. The areas of disturbance along the access road shall be revegetated with a mixture of native grasses and forbs indigenous to the site including the rare San Luis Obispo County Morning Glory. **Prior to grading of the area**, the San Luis Obispo County morning glories within the building area shall be salvaged and used to revegetate the areas along the road and other disturbed areas on the site.
- BIO-7 Open Space Easement.** Prior to issuance of a grading permit, the applicant shall execute and record an open space easement for all areas outside designated building envelopes and driveways, in a form approved by County Counsel and the Executive Director of California Coastal Commission in conformance with applicable Coastal Act regulations. The open space easement shall include a formal legal description and graphic depiction of subject properties including Ellyslly Creek habitat area. Development shall be prohibited in the open space area except for:
- a. Restoration, protection, and enhancement of native riparian habitat and grassland habitat consistent with the terms of the final Native Grassland and San Luis County Morning Glory restoration and revegetation plan.
 - b. Associated improvements for the California Coastal Trail

Monitoring: Required at the time of application for construction permits. Compliance will be verified by the County Department of Planning and Building.

Cultural Resources

CR-1 Limit Ground Disturbance on Parcel 1 – New ground disturbance associated with improvement of the existing access roadway shall be limited to the minimum required by Cal Fire driveway safety standards. Ground disturbance associated with construction of the dwelling and septic leach field shall be limited to the area outside of the boundaries associated with site CA-SLO-2089. If the proposed leach field cannot be relocated, a Phase III archaeological data recovery shall be undertaken for this area as described in mitigation measure CR-6.

CR-2 Cultural Resources - Monitoring Plan. Prior to issuance of grading and/or construction permit(s), the Applicant shall submit a Monitoring Plan, prepared by a County-approved archaeologist, for review and approval by the County Department of Planning and Building. The intent of this Plan is to monitor earth-disturbing activities in areas identified as potentially sensitive for cultural resources, per the approved Plan. The Monitoring Plan shall include at a minimum:

- a. List of personnel involved in the monitoring activities;
- b. Inclusion of involvement of the Native American community, as appropriate;
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- e. Description of what resources are expected to be encountered;
- f. Description of circumstances that would result in the halting of work at the project site (e.g., What is considered “significant” archaeological resources?);
- g. Description of procedures for halting work on the site and notification procedures; and
- h. Description of monitoring reporting procedures.

Prior to construction/ground-disturbing activities, the Applicant shall ensure that any construction-related subsurface excavation in sensitive areas are tested by a County-approved archaeologist. Should buried resources be identified, further testing or avoidance shall be required; if avoidance is not possible, mitigation through data recovery shall be required (as defined in Mitigation Measure CR-6 - Cultural Resources - Phase III data recovery program).

Monitoring (CR-1 – CR-2): Compliance will be verified by the Department of Planning and Building, in consultation with the Environmental Coordinator.

CR-3 Crew Education - The monitoring plan shall also include provisions defining education of the construction crew and establishing protocol for treating unanticipated finds. In consultation with a County-approved archaeologist, the Applicant shall provide cultural resources awareness training to all field crews and field supervisors. This training will include a description of the types of resources that may be found in the project area, the protocols to be used in the event of an unanticipated discovery, the importance of cultural resources to the Native American community, and the laws protecting significant archaeological and historical sites. In addition, the Applicant shall provide all field supervisors with maps showing those areas sensitive for potential buried resources.

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- a. Project redesigns could include, but not limited to, moving foundation elements, designing spanning foundations, reducing proposed excavation volumes, and altering proposed utility lines and connection alignments.
- b. Foundation design may need to be altered to minimize site disturbance. “Side-by-side” comparisons of disturbance and calculations of volume of cultural materials affected will be submitted to show the revised foundation design will result in the least disturbance. **The approved redesign(s) shall be verified by the County prior to construction work.**
- c. Where project must encroach within the identified cultural resource(s), incorporation of fill shall be considered. Only sufficient fill shall be placed over the site so as to allow native soils to remain undisturbed (e.g. 18 inches for residential footings, 6-8 inches for driveway construction). Clean, sterile fill, consisting of a layer of other conspicuous material (e.g. fill of a noticeable different color and texture than native soil) shall be placed over the native soil prior to placement of any other clean fill material. Native soils shall not be disturbed or compacted within the cultural resource areas. A qualified archaeologist shall be retained to oversee this work and prepare a summary report to be submitted to the County **prior to final inspection or occupancy (whichever occurs first)**.
- d. If avoidance is not possible, mitigation through data recovery shall be required (as defined in Mitigation Measure CR- 6 Phase III Data Recovery Program) prior to **construction permit issuance**.
- e. Alternate mitigations may also include a combination of soil capping and Phase III Data Recovery, where feasible.
- f. If human remains are found, an agreement of Non-Disturbance of Native American burial sites may be required **prior to final inspection** to prevent future disturbance to the site(s) identified.

CR-6 Cultural Resources - Phase III Data Recovery Program. If, during site disturbance monitoring, cultural resources are discovered on site and avoidance is not possible, the applicant shall submit to the Environmental Coordinator (and possibly subject to peer

review) for review and approval, a detailed research design for a Phase III (data recovery) archaeological investigation. The Phase III program shall be prepared by a qualified archaeologist approved by the Environmental Coordinator. The Phase III program shall include at least the following:

- a. Standard archaeological data recovery practices;
- b. Recommendation of sample size adequate to mitigate for impacts to archaeological site, including basis and justification of the recommended sample size. Sample size typically is 2% of the volume of disturbed area. If a lesser sample size is recommended, supporting information shall be presented that justifies the smaller sample size.
- c. Identification of location of sample sites/test units;
- d. Detailed description of sampling techniques and material recovery procedures (e.g. how sample is to be excavated, how the material will be screened, screen size, how material will be collected);
- e. Disposition of collected materials;
- f. Proposed analysis of results of data recovery and collected materials, including timeline of final analysis results;
- g. List of personnel involved in sampling and analysis.

Once approved, these measures shall be shown on all applicable construction drawings and implemented **during construction**. **Prior to final inspection**, the applicant shall provide to the County a final report on the investigation work conducted during construction.

CR-7 Cultural Resource – Completion Report. Upon completion of all monitoring/mitigation activities, and prior to occupancy or final inspection (whichever occurs first), the consulting archaeologist shall submit a report to the Environmental Coordinator summarizing all monitoring/mitigation activities and confirming that all recommended mitigation measures have been met. If the analysis included in the Phase III program is not complete by the time of final inspection, the applicant shall provide to the Environmental Coordinator, proof of financial obligation to complete the required analysis and curation of findings.

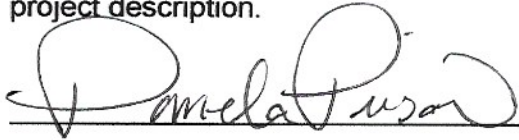
Monitoring: Required during grading and construction activities. Compliance will be verified by the County Department of Planning and Building.

Geology and Soils

GEO-1 At the time of construction permit application, the project shall explore an alternative wastewater disposal system subject to the review and approval of the Regional Water Quality Control Board and/or County Department of Planning & Building.

Monitoring: Required during grading and construction activities. Compliance will be verified by the County Department of Planning and Building.

The applicant understands that any changes made to the project description subsequent to this environmental determination must be reviewed by the Environmental Coordinator and may require a new environmental determination for the project. By signing this agreement, the owner(s) agrees to and accepts the incorporation of the above measures into the proposed project description.



Signature of Owner(s)

12.21.20

Date



Name (Print)