



County of Santa Cruz

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131

KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

www.sccoplanning.com

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

NOTICE OF PUBLIC REVIEW AND COMMENT PERIOD

Pursuant to the California Environmental Quality Act, the following project has been reviewed by the County Environmental Coordinator to determine if it has a potential to create significant impacts to the environment and, if so, how such impacts could be solved. A Negative Declaration is prepared in cases where the project is determined not to have any significant environmental impacts. Either a Mitigated Negative Declaration or Environmental Impact Report (EIR) is prepared for projects that may result in a significant impact to the environment.

Public review periods are provided for these Environmental Determinations according to the requirements of the County Environmental Review Guidelines. The environmental document is available for review at the County Planning Department located at 701 Ocean Street, in Santa Cruz. You may also view the environmental document on the web at www.sccoplanning.com under the Planning Department menu. If you have questions or comments about this Notice of Intent, please contact Todd Sexauer of the Environmental Review staff at (831) 454-3511.

The County of Santa Cruz does not discriminate on the basis of disability, and no person shall, by reason of a disability, be denied the benefits of its services, programs or activities. If you require special assistance in order to review this information, please contact Bernice Shawver at (831) 454-3137 to make arrangements.

PROJECT: Quail Hollow Ranch County Park Master Plan Addendum

APP #: 171295

APN(S): 076-251-17 & 076-301-07

PROJECT DESCRIPTION: The proposed project includes an addendum to the Adopted Quail Hollow Ranch Master Plan, to include approximately three miles of new trails, sandhills habitat restoration activities, and educational signage in the adjacent Pace Property. The proposed project requires a development permit for public trail uses in Residential Agricultural District. Construction of portions of trail in sensitive habitat areas requires a biotic approval from the County.

PROJECT LOCATION: The proposed project is an addendum to the Quail Hollow Ranch County Park Master Plan. The addendum area (project area) is located on the north side of Quail Hollow Ranch County Park, within the community of Felton in the unincorporated Santa Cruz County. The project area includes two parcels. The County of Santa Cruz is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay and the Pacific Ocean.

EXISTING ZONE DISTRICT: RA, PR

APPLICANT: Santa Cruz County Parks Department

OWNER: Santa Cruz County Parks Department

PROJECT PLANNER: Will Fourt, Parks Department, (831) 454-7910

EMAIL: Will.Fourt@santacruzcounty.us

ACTION: Negative Declaration with Mitigations

REVIEW PERIOD: October 13, 2017 through November 13, 2017

This project will be considered at a public hearing by the Zoning Administrator. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.



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KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR
<http://www.sccoplanning.com/>

MITIGATED NEGATIVE DECLARATION

Project: Quail Hollow Ranch County Park Master Plan Addendum **APN(S):** 076-251-17 & 076-301-07

Project Description: The proposed project includes an addendum to the Adopted Quail Hollow Ranch Master Plan, to include approximately three miles of new trails, sandhills habitat restoration activities, and educational signage in the adjacent Pace Property. The proposed project requires a development permit for public trail uses in Residential Agricultural District. Construction of portions of trail in sensitive habitat areas requires a biotic approval from the County.

Project Location: The proposed project is an addendum to the Quail Hollow Ranch County Park Master Plan. The addendum area (project area) is located on the north side of Quail Hollow Ranch County Park, within the community of Felton in the unincorporated Santa Cruz County. The project area includes two parcels. The County of Santa Cruz is bounded on the north by San Mateo County, on the south by Monterey and San Benito counties, on the east by Santa Clara County, and on the south and west by the Monterey Bay and the Pacific Ocean.

Owner: Santa Cruz County Parks Department
Applicant: Santa Cruz County Parks Department
Staff Planner: Will Fourt, (831) 454-7910
Email: Will.Fourt@santacruzcounty.us

This project will be considered at a public hearing by the Zoning Administrator. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.

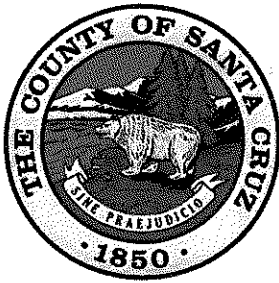
California Environmental Quality Act Mitigated Negative Declaration Findings:

Find, that this Mitigated Negative Declaration reflects the decision-making body's independent judgment and analysis, and; that the decision-making body has reviewed and considered the information contained in this Mitigated Negative Declaration and the comments received during the public review period; and, that revisions in the project plans or proposals made by or agreed to by the project applicant would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and, on the basis of the whole record before the decision-making body (including this Mitigated Negative Declaration) that there is no substantial evidence that the project as revised will have a significant effect on the environment. The expected environmental impacts of the project are documented in the attached Initial Study on file with the County of Santa Cruz Clerk of the Board located at 701 Ocean Street, 5th Floor, Santa Cruz, California.

Review Period Ends: November 13, 2017

Date: _____

TODD SEXAUER, Environmental Coordinator
(831) 454-3511



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CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) INITIAL STUDY/ENVIRONMENTAL CHECKLIST

Date: September 25, 2017

**Application
Number:**

171295

Project Name: Quail Hollow Ranch
County Park Master Plan
Addendum

Staff Planner: Will Fourt, Parks
Department

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: County Parks Department

APN(s): 076-251-17 & 076-301-07

OWNER: County Parks Department

SUPERVISORALDISTRICT: 5

PROJECT LOCATION:

The proposed project is an addendum to the Quail Hollow Ranch County Park Master Plan. The addendum area (project area) is located on the north side of Quail Hollow Ranch County Park, within the community of Felton in the unincorporated Santa Cruz County. The project area includes two parcels. One parcel is privately owned (APN 076-301-07) and the County holds a public trail easement over this property, referred to as the Easement Property. The other parcel is a discontinuous parcel (APN 076-251-17) owned by the County Parks Department north of Quail Hollow Ranch County Park, referred to as the Pace Property. A map of the general project location is shown in Figure 1, and a map of the addendum area is shown in Figure 2.

SUMMARY PROJECT DESCRIPTION:

The proposed project includes an addendum to the Adopted Quail Hollow Ranch Master Plan, to include approximately three miles of new trails, sandhills habitat restoration activities, and educational signage in the adjacent Pace Property. Project components are shown in Figure 3. The proposed project requires a development permit for public trail uses in Residential Agricultural District. Construction of portions of trail in sensitive habitat areas requires a biotic approval from the County.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: *All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.*

Aesthetics and Visual Resources

Mineral Resources

Agriculture and Forestry Resources

Noise

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: All of the following potential environmental impacts are evaluated in this Initial Study. Categories that are marked have been analyzed in greater detail based on project specific information.

- | | |
|--|---|
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Population and Housing |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Public Services |
| <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Recreation |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Tribal Cultural Resources |
| <input checked="" type="checkbox"/> Hydrology/Water Supply/Water Quality | <input type="checkbox"/> Mandatory Findings of Significance |
| <input checked="" type="checkbox"/> Land Use and Planning | |

DISCRETIONARY APPROVAL(S) BEING CONSIDERED:

- | | |
|--|--|
| <input type="checkbox"/> General Plan Amendment | <input type="checkbox"/> Coastal Development Permit |
| <input type="checkbox"/> Land Division | <input type="checkbox"/> Grading Permit |
| <input type="checkbox"/> Rezoning | <input type="checkbox"/> Riparian Exception |
| <input type="checkbox"/> Development Permit | <input checked="" type="checkbox"/> Land Clearing Approval |
| <input type="checkbox"/> Sewer Connection Permit | <input checked="" type="checkbox"/> Other: Biotic Approval |

OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (e.g., permits, financing approval, or participation agreement):

<u>Permit Type/Action</u>	<u>Agency</u>
Section 10(a) Take Authorization	U.S. Fish and Wildlife Service

DETERMINATION:

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that 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 or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that 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.

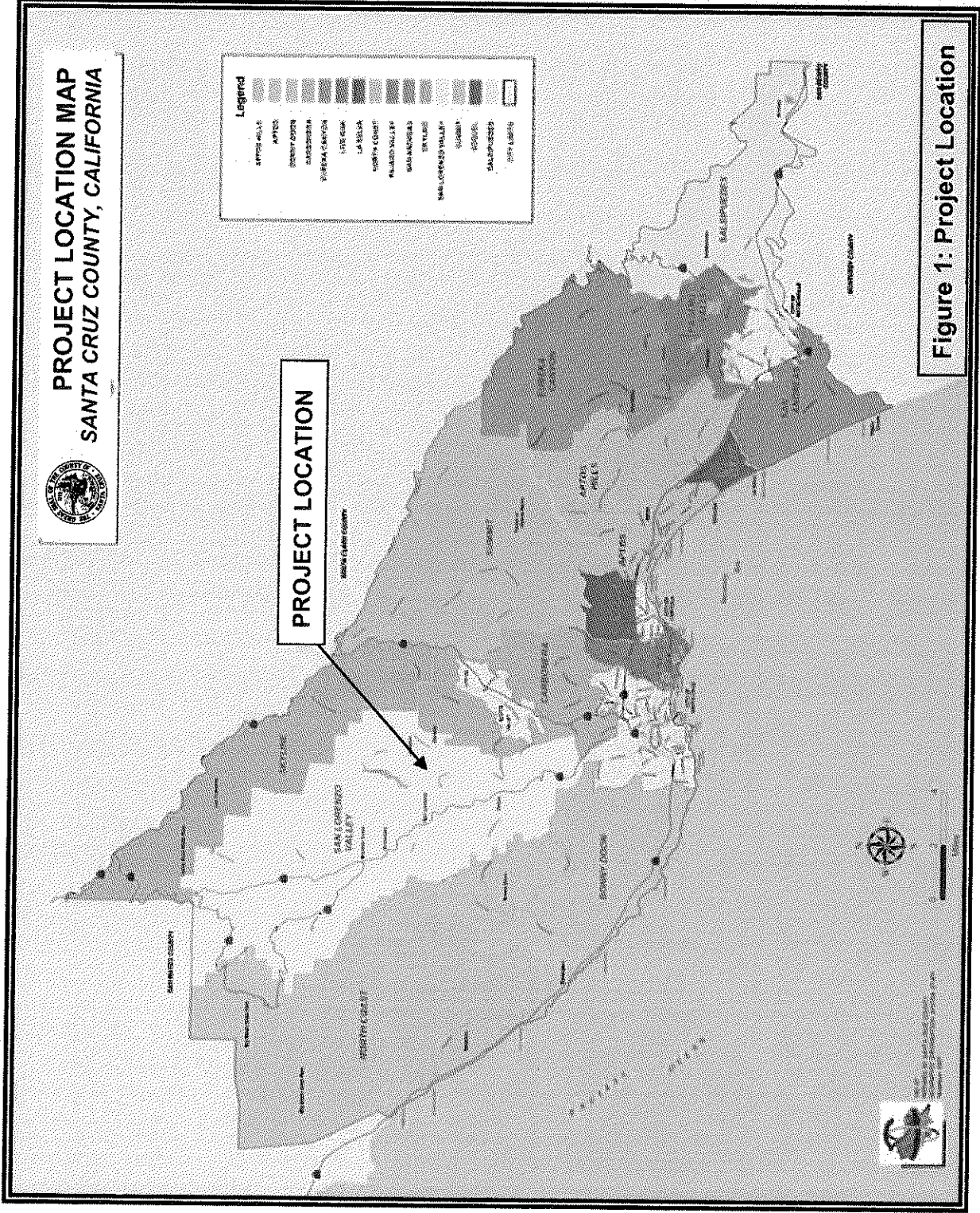
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

TODD SEXAUER, Environmental Coordinator

Date



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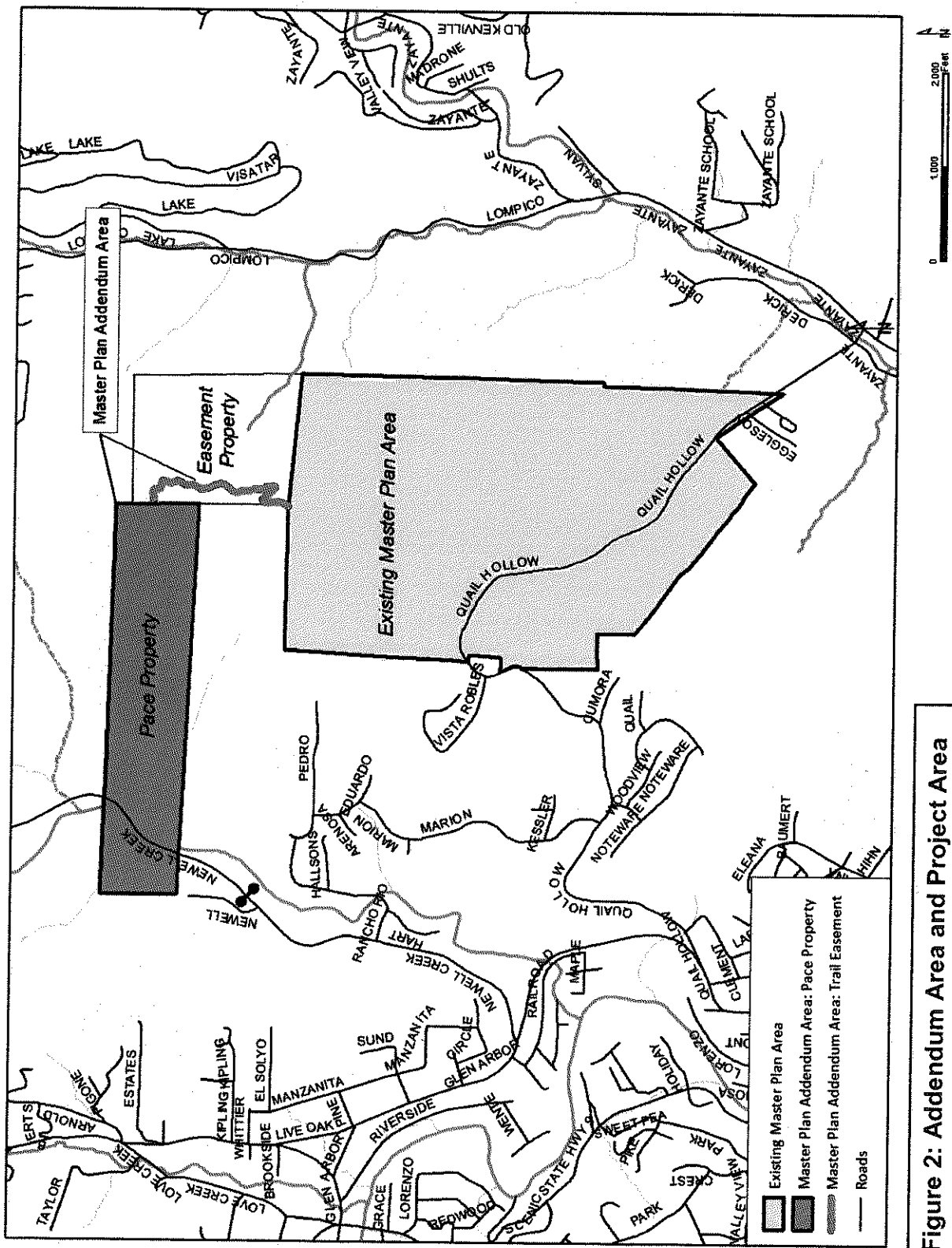


Figure 2: Addendum Area and Project Area

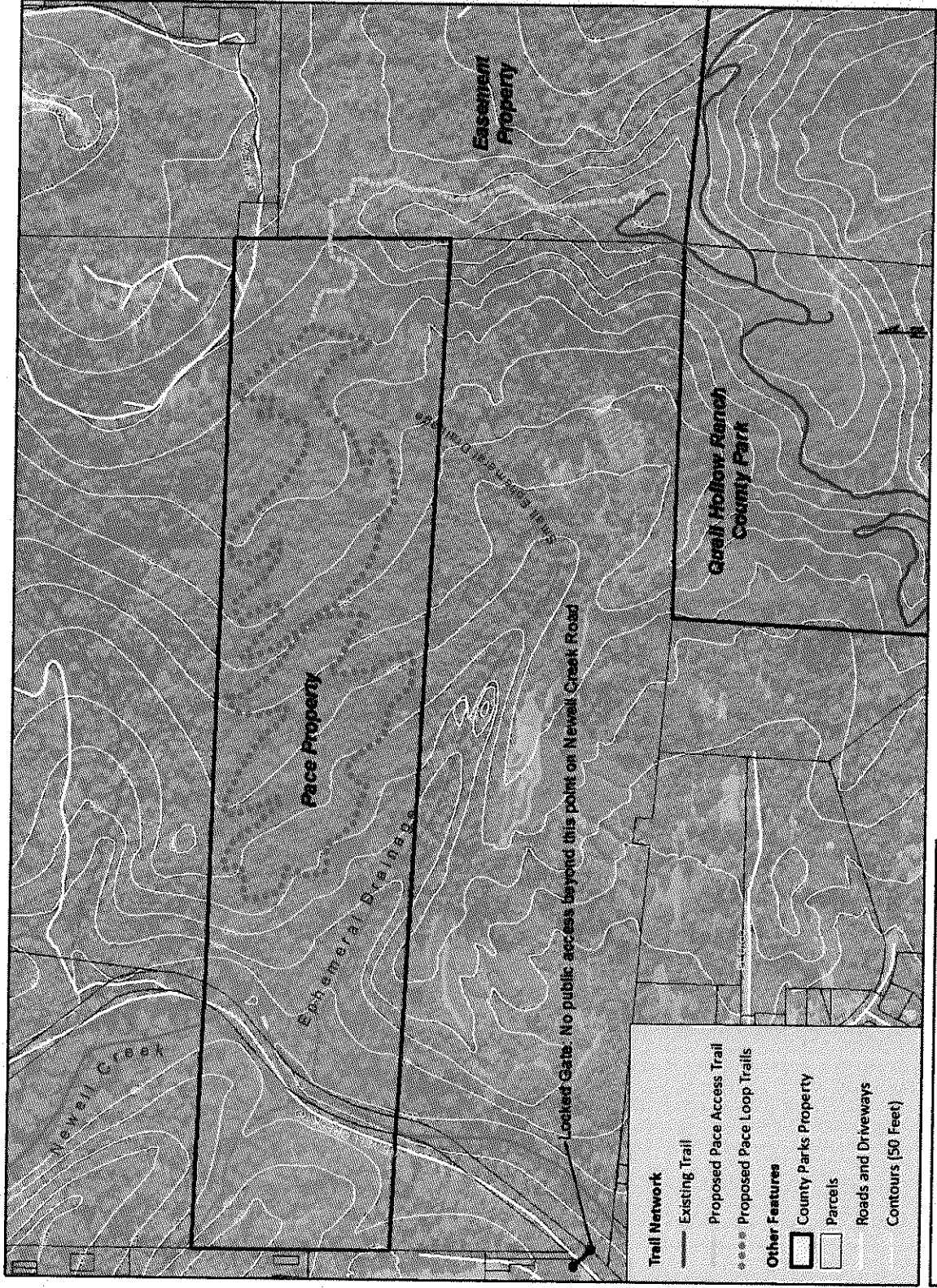


Figure 3: Proposed Trail Network



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II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS:

Parcel Size (acres): Approximately 80 acres
 Existing Land Use: Vacant County Parks Land
 Vegetation: The project area contains a mix of redwood forest, mixed evergreen forest, ponderosa pine forest, sand parkland and sand chaparral.
 Slope in area affected by project: 0 - 30% 31 - 100% N/A
 Nearby Watercourse: Newell Creek
 Distance To: Approximately 500 feet

ENVIRONMENTAL RESOURCES AND CONSTRAINTS:

Water Supply Watershed:	Yes	Fault Zone:	Not Mapped
Groundwater Recharge:	Yes - Portion	Scenic Corridor:	No
Timber or Mineral:	Not Mapped	Historic:	No
Agricultural Resource:	Not Mapped	Archaeology:	Yes - Portion
Biologically Sensitive Habitat:	Sandhills	Noise Constraint:	No
Fire Hazard:	Yes - Portion	Electric Power Lines:	Yes
Floodplain:	Not Mapped	Solar Access:	Forested
Erosion:	Not Mapped	Solar Orientation:	West
Landslide:	Not Mapped	Hazardous Materials:	No
Liquefaction:	Not Mapped	Other:	

SERVICES:

Fire Protection:	State Responsibility Area	Drainage District:	Zone 8
School District:	SLVUSD	Project Access:	Only by new trail from Quail Hollow Ranch County Park
Sewage Disposal:	CSA 12	Water Supply:	SLVWD

PLANNING POLICIES:

Zone District:	RA, PR	Special Designation:	N/A
General Plan:	R-M		
Urban Services Line:	<input type="checkbox"/> Inside	<input checked="" type="checkbox"/> Outside	
Coastal Zone:	<input type="checkbox"/> Inside	<input checked="" type="checkbox"/> Outside	

ENVIRONMENTAL SETTING AND SURROUNDING LAND USES:

Natural Environment

Santa Cruz County is uniquely situated along the northern end of Monterey Bay approximately 55 miles south of the City of San Francisco along the Central Coast. The project site is located in the Santa Cruz Mountains, which exhibit a variety of habitat types and terrain.

The project area is largely undeveloped and features largely intact vegetation dominated by native plant species.

Soils

The following soils information is summarized from the Biotic Report prepared for this project (McGraw 2017, Attachment 2).

As mapped by the United States Department of Agriculture Soil Conservation Service, the project area features two main soil types: Zayante soils including the Zayante Rock Outcrop Complex, and Nisene-Aptos Complex soils on 50-75% slopes.

Most of the Pace Property and the southern portion of the Easement Property are mapped as featuring Nisene-Aptos Complex soils—which are loam or sandy loam soils derived from weathered mudstone, sandstone, or shale fine-grained sandstone (USDA 1980). The northeastern corner of the Pace Property and northwestern and southwestern corners of the Easement Property are mapped as supporting Zayante soils, which are poorly developed, deep, coarse, sand soils derived from the weathering of uplifted marine sediments and sandstones (USDA 1980).

During reconnaissance-level site assessment for the biotic report, surface soil conditions were observed to be sandy throughout most of the Pace Access Trail alignment as well as the initial north and south segments of the Pace Loop Trail. These soils were generally light colored (i.e., tan), though in areas of denser vegetation and leaf litter on the soil surface, were darker (e.g., light brown), reflecting their greater organic matter.

Soils observed in the western approximately 90% of the loop trail were featured a greater proportion of silt particles, and were much darker (i.e., dark brown) due to the much higher levels of organic matter. Soils located at the 'border' of what was mapped and generally described as Zayante soil may be transitional in nature, featuring a high proportion of sand than soils of the Nisene-Aptos Complex, but perhaps less sand than typical Zayante sand soils.

Hydrology

Newell Creek, a perennial stream that is tributary to the San Lorenzo River, traverses the western portion of the project area just east of Newell Creek Road. There is an ephemeral drainage to Newell Creek which flows northwest along the southwestern portion of the Pace Property, where it is lined with coast redwoods (Figure 3). Near the northeastern border corner of the Pace Property, there is a small, ephemeral drainage which flows southwest to

the previously mentioned drainage. The proposed loop trail would cross these ephemeral drainages in two locations (Figure 3).

Vegetation and Habitat

The following vegetation and habitat information is summarized from the Biotic Report prepared for this project (McGraw 2017, Attachment 2).

This project area features a complex mosaic of vegetation, which reflects the varying soils, hydrologic conditions, and slope aspects. Generally, habitat types can be classified into sandhills areas, or areas that support Zayante sand soils and one or more indicator plant species of sandhills communities (ponderosa pine and silverleaf manzanita), and non-sandhills areas, or areas that feature mostly loamy soils supporting redwood or mixed evergreen forest.

Sandhills habitats are present in various parts of Quail Hollow Ranch County Park and the project area. These habitat types support unique ecological communities and support several sensitive endemic species that only exist in the small area of sandhills in the Santa Cruz Mountains. For these reasons, intensity of use and development in sandhills habitat are limited. At Quail Hollow Ranch County Park, access to the most sensitive sandhills habitats is restricted to special guided tours led by qualified biologists, who teach participants about sandhills related species. For more information about the vegetation types and the project, including vegetation mapping, see Section D under Biological Resources.

PROJECT BACKGROUND:

Quail Hollow Ranch County Park was acquired by the County Parks Department in 1987. The relatively undisturbed property is mostly open space and is managed by County Parks as a regional park. The park includes a historic ranch house with a small visitor center used for events, a horse corral and boarding facility, a caretaker's cottage, a public parking area, a small pond and open space areas, and an existing 4.5-mile network of hiking trails. Some of these trails are currently open to equestrian use. Since acquiring the parcel, County Parks has done minimal improvements and development on the site.

The Quail Hollow Ranch County Park Master Plan, adopted in 1990 ("1990 Master Plan"), specifies the originally-planned improvements for the park such as improvements to the ranch house and caretaker's cottage, a new multi-purpose/childcare building, a 100-person amphitheater, parking and restroom improvements, and ballfields.

These originally-planned uses and developments were analyzed in the Quail Hollow Ranch Master Plan Environmental Impact Report (EIR), adopted in 1996. Based on environmental issues raised in the EIR, as well as public comments in the related hearings, the Master Plan was amended in 2000 ("2000 Amendment") to exclude many of the proposed uses included in the 1990 Master Plan.

In 2015, County Parks developed the one-mile Woodrat Trail and made improvements to the Discovery Trail, which were part of the trail alignments identified in the 1990 Master Plan

and 2000 Amendment. The Woodrat Trail is similar to the proposed trails in the proposed addendum in proposed construction methods and in the habitat types that it traverses.

The Pace Property was acquired by the County Parks Department in 1997. A permanent public trail easement was recorded on the Easement Property, between the Pace Property and Quail Hollow Ranch County Park, in 2017, allowing public access between the two properties.

The proposed project is an addendum to the Quail Hollow Ranch Master Plan to include trail and restoration activities associated with incorporating and opening the adjacent Pace Property to public access. This access would be developed by creating a public hiking trail between the two properties.

The addendum to the Master Plan does not change or amend any of the approved plans included in the 1990 Master Plan or 2000 Amendment. Rather, the addendum adds proposed trail and restoration plans on the adjacent Pace Property, to be incorporated into and added to Quail Hollow Ranch County Park. Most elements of the 1990 Master Plan and 2000 Amendment have not yet been implemented by the County Parks Department. The elements that are approved in the 1990 Master Plan, and not excluded by the 2000 Amendment, may be implemented in the future and are not related to the addendum.

DETAILED PROJECT DESCRIPTION:

The Project includes trail construction, sandhills habitat restoration, signage, and trail maintenance, which are described below.

The project requires development permit for public trail uses in the Residential Agricultural (RA) Zoning District. In addition, construction

of portions of trail insensitive habitat areas requires a biotic approval from the County.

Proposed Trail Network

The planned trail network includes two new trails, shown in Figure 3.

Proposed trail alignments have been sited based on topography, existing vegetation, natural features and avoidance and buffers around identified sensitive species.

For all new trails included in the addendum, trail grade would not exceed ten percent grade and would not exceed an average of 5 to 7 percent. The trail would be constructed with hand tools only, and would be undergo minor re-alignment as necessary in the field to minimize the removal of vegetation, and to avoid any identified sensitive species. The surface of the trail would be native soil, and the width of the trail would be an average of two feet, except in sandhills areas and areas with cross slopes of over ten percent, where average width would be 18 inches.

In portions of the trail that do not have cross slopes of greater than 10 percent, trail construction would consist of removing the duff layer to expose native soil as the trail surface. In areas with cross slopes greater than 10 percent, trail construction would consist of minor

grading using hand tools to cut into the uphill bank to create an outsloped trail surface of two to five percent, with excess soil material being cast downhill of the trail. Trail surface would be sited on the full bench of the cut and no fill material will be used in cut portions of trail construction. Cuts would not exceed 18 inches in depth.

In trail sections where a full bench is not feasible due to steep cross slopes, small crib walls may be used to create an 18-inch-width trail. Crib walls would have gaps along the down slope to allow drainage, would be constructed from milled redwood brought to the site, would be filled with two-inch crushed drain rock brought to the site to allow drainage, and would have native soil on the surface. Cross slopes and trail alignments are shown in Figure 4.

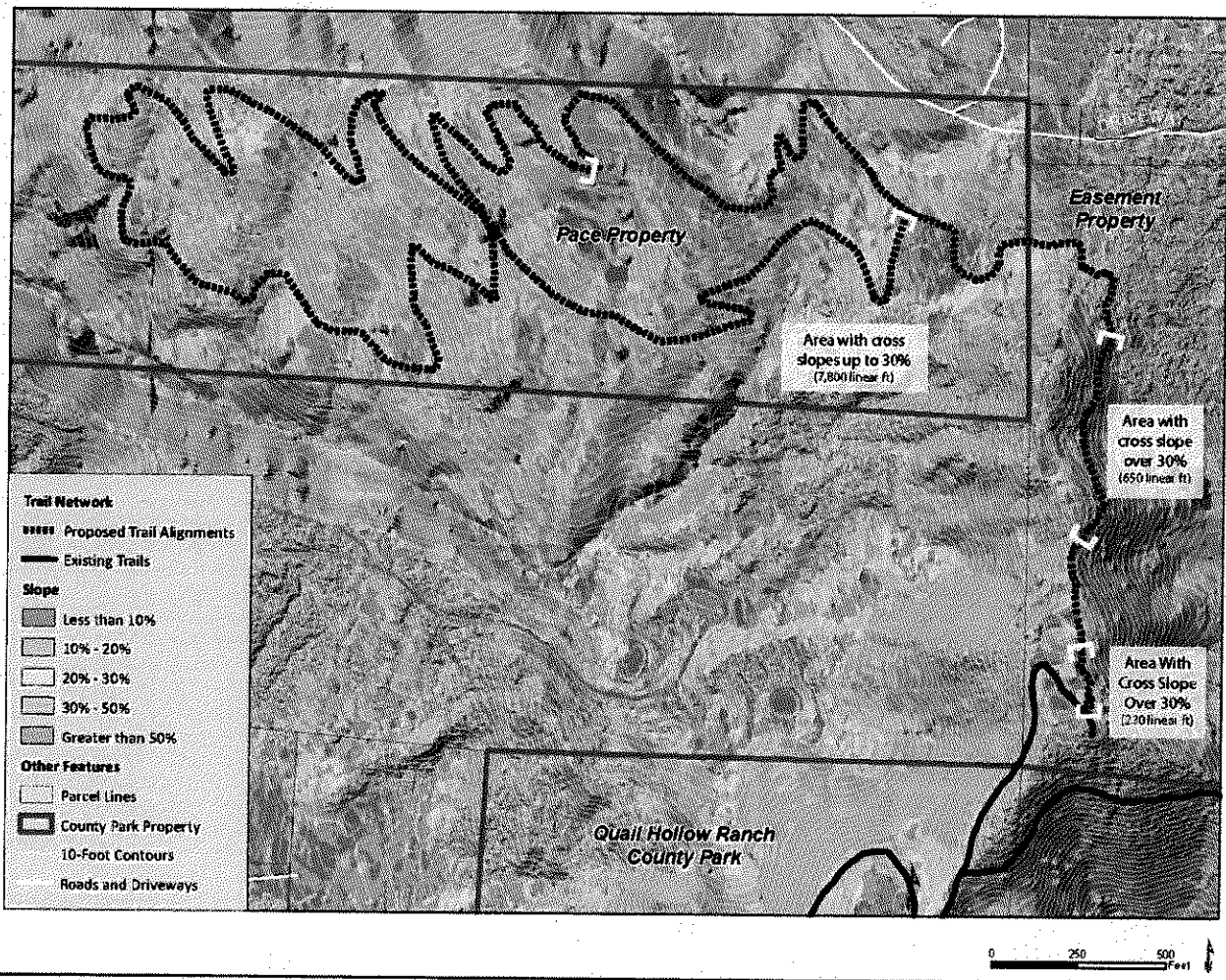


Figure 4: Trail Alignments and Slopes

There are 7,800 linear feet of trail located in areas with some portions of cross slopes up to 30 percent. The amount of soil in these areas that requires minor grading would not exceed 65 cubic yards of soil, and none of these areas would be located in sandhills habitat. There are 830 linear feet of trail proposed in areas with greater than 30 percent cross slope. The amount of soil in these areas that would require minor grading would not exceed 21 cubic yards of cut

soil. These areas would be located in sandhills or transitional sandhills habitat. In total, minor grading for trail construction would not exceed 86 cubic yards of soil. Fill would only be used for crib wall construction, which would not exceed 12 cubic yards of drain rock.

The location, tree cover and grade for these trails would eliminate the need for special drainage structures. Additionally, the trail would be outsloped to minimized gullying and accumulation of runoff down the trail. Local materials would be used as required to stabilize the trail. Where necessary, rolling dips and/or water bars would be installed approximately every fifty feet or as needed to ensure that any accumulated water flow is directed off the trail. Erosion and sediment control Best Management Practices (BMPs) to be implemented trail construction are detailed in Section I, below.

Pace Access Trail

The proposed access trail to the Pace Property would be located within the Easement Property, between Quail Hollow Ranch County Park and the Pace Property. This new trail would provide public hiking access from Quail Hollow Ranch to the Pace Property, and would provide the needed access for sandhills habitat restoration and educational signage in this area.

The trail would connect to the existing Quail Hollow Ranch trail system at the Sunset Trail, 200 feet downhill from the overlook at the end of the existing trail. The new connector trail would be sited generally along contour for approximately a half mile to the Pace Property, as shown in Figure 3.

The Pace Access Trail would traverse 2,200 linear feet through sandhills habitat, of which 830 linear feet are located in areas with cross slopes great enough that some minor hand grading will be required.

The Pace Access Trail would not cross any drainages or streams.

Pace Loop Trails

The loop trails on the Pace Property would connect to the Pace access trail, and would provide two miles of hiking loop trails within the upper portion of the Pace Property. The alignment for these trails is shown in Figure 3. The final alignment for these trails would be refined in the field based on site conditions.

The Pace Loop Trails would traverse 500-linear feet of sandhill habitats, but the relatively gradual cross slopes in this area would not necessitate grading for trail construction.

The loop trails would cross one ephemeral drainage swale in two locations. This swale would be spanned with a simple wooden puncheon constructed from milled redwood brought onto the site, spanning from top of bank to top of bank. The puncheon supports would be setback appropriately to eliminate erosion or collapsing of the banks from the weight of the puncheon. This structure would not include any disturbance to the area between the banks. The trail would not cross or be sited within fifty feet of the top of the bank of any perennial drainages

on the property. BMPs related to the stream crossings are detailed in section D under Biological Resources.

Sandhills Habitat Restoration

County Parks would undertake the restoration of sensitive sandhills habitats and enhancement of conditions for the Ben Lomond wallflower and Ben Lomond spineflower on the Pace Property, which would be made possible by the construction of the Pace Access Trail. Sandhills habitat restoration actions would include the following activities.

First, the project would include planting Ben Lomond spineflower seeds along the newly constructed trail corridor in the ponderosa pine forest area in the upper Pace Property. As spineflower naturally grows in disturbed areas, trail construction activities would provide opportune disturbed soil areas along and adjacent to the trail where distributed seed may establish. Seed would be collected within Quail Hollow Ranch County Park, selectively without affecting the seed supply for the existing population, by qualified individuals familiar with the species and botanical patterns, based on recommendations by the project biologist. Seeds would be planted in the fall prior to the first rains.

Second, existing Ben Lomond wallflower populations would be protected and expanded on the Pace property. With new access from trail construction, cages would be placed on existing wallflower populations in the spring to protect them from herbivory. Cages would be made from 4" x 2" mesh to allow pollination by butterflies. Caging would be conducted by qualified individuals familiar with the species and with consultation with the project biologist. Populations would also be expanded by distributing collected seed into new sandhills areas and hand raking these areas to provide a level of disturbance needed for the species' establishment, under supervision by the project biologist.

Third, with the creation of public access to the Pace Property, invasive populations of broom on the upper portion of the Pace Property would be removed. Broom removal would be completed by hand in the spring each year before individual plants flower and go to seed. Continual broom removal would benefit native sandhills species and allow expansion of sensitive sandhills species into these areas.

Educational Signage

Interpretive educational signage as well as directional wayfinding signage would be installed along the trail. Interpretive signage would provide educational opportunities for park users to learn about the sensitive plants and animals and their associated sensitive biological communities along these new trail corridors. A total of five interpretive panel signs would be installed at key locations along the trail on the Easement Property and the Pace Property. Interpretive signs would be 36 inches wide by 24 inches tall, and would be mounted on a metal base with two metal posts buried directly in the ground. Interpretive signs would have themes such as natural geologic history of sandhills, sandhill plant communities and restoration efforts, and the history of Quail Hollow and surrounding areas.

Directional signage would be placed at each trail junction, and would include trail name, allowed uses, mileage and directional arrows. Directional signs would be mounted on four-inch square redwood posts set directly in the ground.

Trail Maintenance

Trails maintenance is expected to be minimal and consist mostly of annual vegetation trimming. Occasional minor trail surface grooming may also be necessary where foot traffic has adversely altered the grade. All maintenance would be performed with hand tools.

III. ENVIRONMENTAL REVIEW CHECKLIST

A. AESTHETICS AND VISUAL RESOURCES

Would the project:

1. Have a substantial adverse effect on a scenic vista?

Discussion: The project would not change any views, directly impact any public scenic resources as designated in the County's General Plan (1994), or obstruct any public views of these visual resources.

2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Discussion: The project site is not located along a County designated scenic road, public viewshed area, scenic corridor, within a designated scenic resource area, or within a state scenic highway. Therefore, no impact is anticipated.

3. Substantially degrade the existing visual character or quality of the site and its surroundings?

Discussion: The existing visual setting is natural vegetated landscape. The proposed project would include minimal visual changes from additions of trails within County Park land using native surface and trail signage within County Park land designed to highlight features in the natural landscape, which would fit into this setting.

4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Discussion: The project does not include a source of light and would not affect either day or nighttime views in the area.

B. AGRICULTURE AND FORESTRY RESOURCES

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 Department 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:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project site does not contain any lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. In addition, the project does not contain Farmland of Local Importance. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide or Farmland of Local Importance would be converted to a non-agricultural use. No impact would occur from project implementation.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project site's land is not under a Williamson Act Contract. The proposed project is consistent with the allowed uses of open space and recreation under the current zoning of Residential Agriculture. Therefore, the project does not conflict with existing zoning for agricultural use, or a Williamson Act Contract. No impact is anticipated.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. 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"/> |
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Discussion: Although the project is adjacent to land designated as Timber Resource, the proposed project would not conflict with existing zoning for forest land. The project would not affect the adjacent resource or access to harvest the resource in the future. The adjacent timber resource may only be harvested in accordance with California Department of Forestry timber harvest rules and regulations. No impact would occur.

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| 4. 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"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project would not include removal of any trees or conversion of any forest land. See discussion under B-3 above. No impact is anticipated.

5. *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?*

Discussion: The project site and surrounding area within a radius of a half mile do not contain any lands designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance or Farmland of Local Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, no Prime Farmland, Unique Farmland, Farmland of Statewide, or Farmland of Local Importance would be converted to a non-agricultural use. In addition, the project would not include the removal of any trees or conversion of any forest land. Therefore, no impacts are anticipated.

C. AIR QUALITY

The significance criteria established by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) has been relied upon to make the following determinations. Would the project:

1. *Conflict with or obstruct implementation of the applicable air quality plan?*

Discussion: The project would be constructed with hand tools and would not include any activities that would include construction or operating emissions or affect air quality. The project would not conflict with or obstruct any long-range air quality plans of the Monterey Bay Unified Air Pollution Control District (MBUAPCD). No impact would occur.

2. *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Discussion: Santa Cruz County is located within the North Central Coast Air Basin (NCCAB). The NCCAB does not meet state standards for ozone (reactive organic gases [ROGs] and nitrogen oxides [NOx]) and fine particulate matter (PM₁₀). Therefore, the regional pollutants of concern include ozone precursors and PM₁₀. Since the project does not include any construction or operation related emissions, the project would not contribute to regional levels ozone precursors or PM₁₀. Therefore, no impact would occur.

3. *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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Discussion: Project construction would not have any permanent or temporary potential to contribute to existing violations of California air quality standards for ozone and PM₁₀. Therefore, the proposed project would not result in a cumulatively considerable net increase in criteria pollutants. The project would have no impact on ambient air quality.

4. *Expose sensitive receptors to substantial pollutant concentrations?*

Discussion: The proposed project includes construction using hand tools only and would not generate substantial pollutant concentrations. The project would not have any impacts to sensitive receptors.

5. *Create objectionable odors affecting a substantial number of people?*

Discussion: The proposed project does not include use of any combustion engines or use of any materials that would create objectionable odors affecting a substantial number of people; therefore the project would have no impacts related to odors.

D. BIOLOGICAL RESOURCES

Would the project:

1. *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 Wildlife, or U.S. Fish and Wildlife Service?*

Discussion:

Background

This Biological Resources section is based on the project's Biotic Report, prepared by Jodi McGraw Consulting on October 3, 2017, included as Attachment 2 to this Initial Study.

The Biotic Report includes a map of project area vegetation types and habitats, which consist of a complex mosaic of vegetation with varying soils, hydrologic conditions, and slope aspects. Dominant plant species within the mapped types integrate such that the boundaries reflected in the map are general and do not represent sharp discontinuities in many locations.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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For purposes of assessing sensitive habitat, project areas can be classified as either sandhills habitat or non-sandhills habitat (Figure 5). Sandhills habitat is defined by the presence of Zayante sand soil, or areas where one or more indicator plant species characteristic of sandhills communities is present, including ponderosa pine (*Pinus ponderosa*) and silverleaf manzanita (*Arctostaphylos silvicola*) (McGraw 2017). Sandhills habitat areas may support one or more additional endemic sandhills species including Ben Lomond spineflower (*Chorizanthe pungens* var. *hartwegiana*), Ben Lomond wallflower (*Erysimum teretifolium*), and Mount Hermon June Beetle (*Polyphylla barbata*) (McGraw 2017). Non-Sandhills habitat is defined by loamy soils that support redwood or mixed evergreen forest, and do not feature the indicator plant species of the sandhills and likely do not support the Mount Hermon June beetle due to inappropriate soil conditions, where soils are too silty (McGraw 2017).

The sandhills areas in the project area have the potential to provide habitat for special-status species, including both federally and state-listed species. Because of this, sandhills areas would be considered areas of biotic concern by the County, and are subject to the County Sensitive Habitat Protection Ordinance. County Code 16.32.060 states that any development activity within an area of biotic concern requires a biotic approval to be issued by the County.

Sandhills habitat within the proposed project area can be further classified into the following four community types, which would all be considered sensitive habitat (Figure 6):

1. **Sand Parkland:** This single 2.0-acre patch of sand parkland is centered on what appears to be an eroded hillslope with rock outcropping. It features Ben Lomond wallflower, Ben Lomond spineflower, Ben Lomond buckwheat, and other herbaceous plants characteristic of sand parkland, as well as scattered ponderosa pine in the overstory (McGraw 2017).
2. **Sand Chaparral:** These 18.0 acres feature primarily shrubs including silverleaf manzanita with an overstory of scattered ponderosa pine and knobcone pine (*Pinus attenuata*), with sparse cover of herbaceous plants in the canopy gaps. Most of this community is in the southeastern portion of the Pace Property and the southwestern portion of the Easement Parcel, though analysis of aerial imagery suggests a small amount is found in the southwestern portion of the Pace Property as well (McGraw 2017).
3. **Ponderosa Pine Forest:** This 9.6-acre area straddling the two parcels features ponderosa pines in the overstory, with largely chaparral shrubs including silverleaf manzanita and oaks such as Shreve oak (*Quercus parvular* var. *shrevei*) and coast live oak (*Q. agrifolia*) in the understory portion of the Pace Property (McGraw 2017).

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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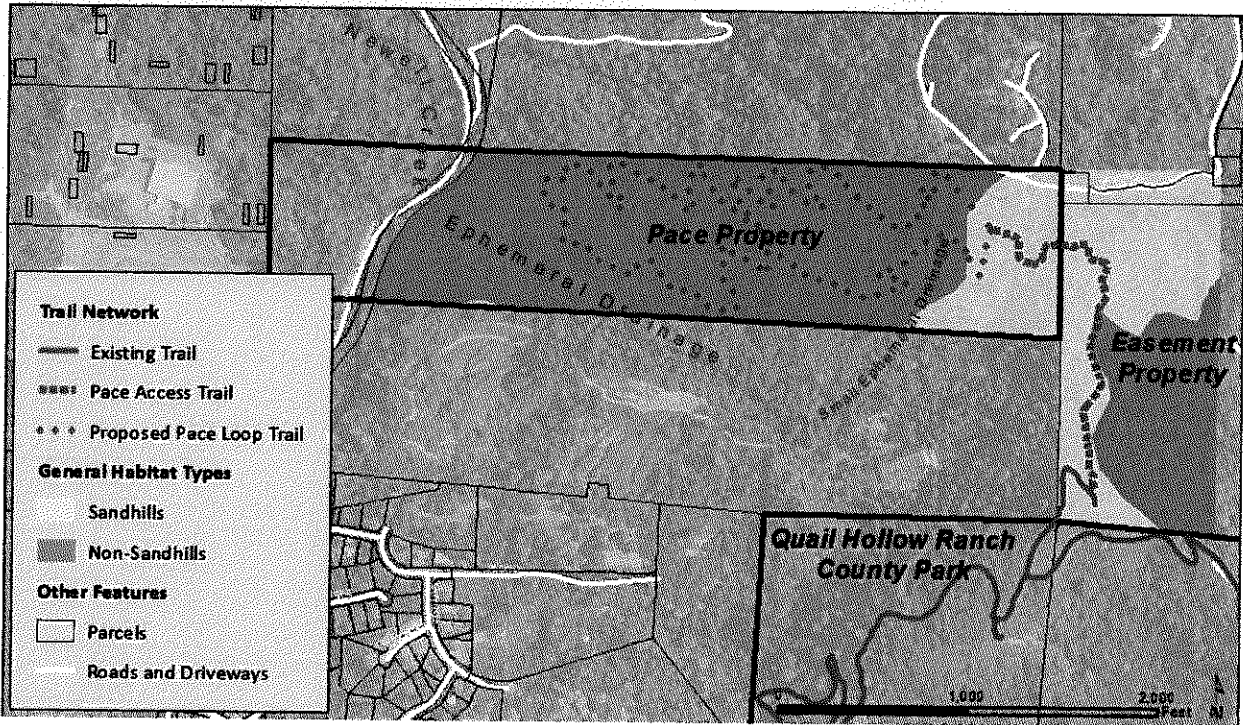


Figure 5: Sandhills and Non-Sandhills Habitat Areas (habitat types data: McGraw 2017)

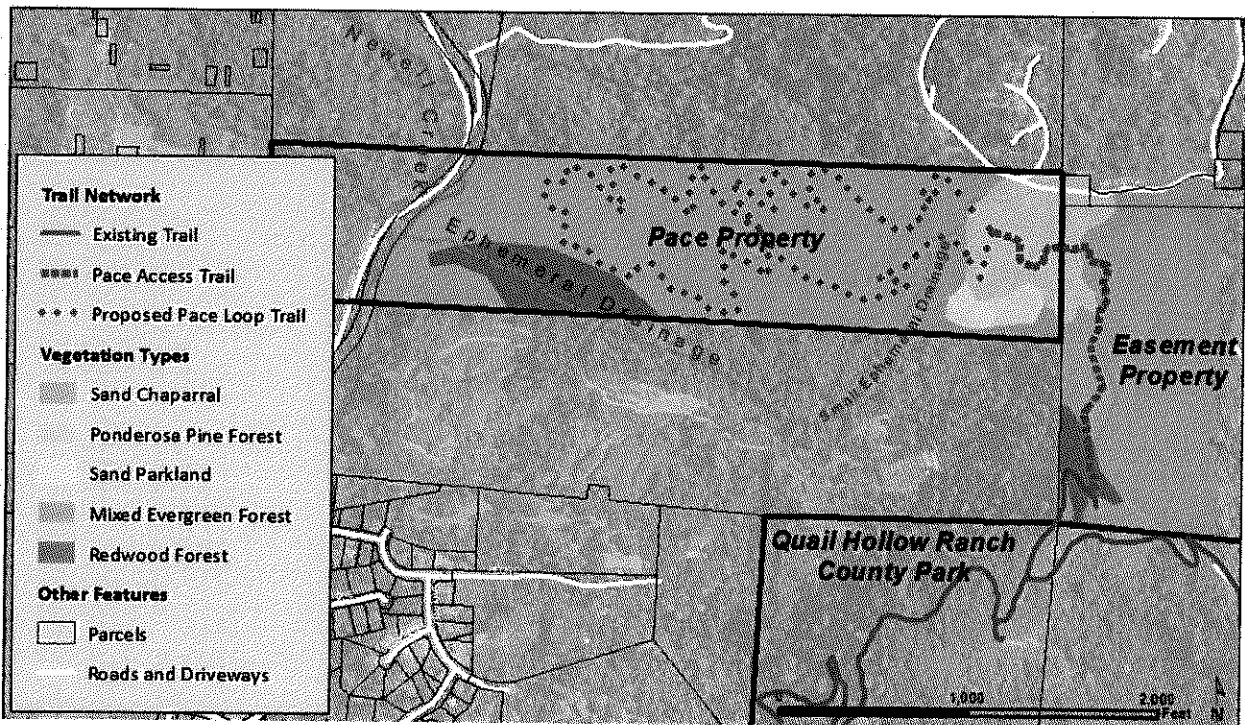


Figure 6: Vegetation Community Types (vegetation types data: McGraw 2017)

4. **Small-Statured (“Pygmy”) Redwood Forest:** The redwood forest on the ridge and north-facing slope in the southwestern portion of the Pace Property occurs on Zayante sand soil. While the soil in this area is more developed and less sandy overall than other sandhills habitat, it likely reflects an ecotone between sandhills and non-sandhills, and may support Mount Hermon June beetle (McGraw 2017).

Sandhills habitat, including all of the four specific community types listed above, supports the following special-status species, which are discussed in more detail in the subsections below:

1. Silverleaf manzanita, State Rank 1B.2
2. Ben Lomond Buckwheat, State Rank 1B.1
3. Ben Lomond Spineflower, federally listed as endangered and State Rank of 1B.1
4. Ben Lomond Wallflower, federally listed as endangered and State Rank of 1B.1
5. Mount Hermon June Beetle, federally listed as endangered
6. Zayante Band-Winged Grasshopper, federally listed as endangered

Trail construction could potentially impact the special-status species listed above through direct disturbance or removal from trail construction activities. Species-specific potential impacts and mitigation measures are discussed individually by species in the following sections.

Currently, consistent with the 1990 Master Plan and EIR, trails in the park traverse sandhills habitat types including sand chaparral and ponderosa pine forest. Trails through areas of sand parkland have restricted access.

Qualified individuals lead educational guided hikes through the restricted areas of sand parkland habitat types regularly. These hikes provide educational and interpretive outreach about the importance of sandhills habitat to the local community, and the importance of protecting them.

Silverleaf Manzanita

Silverleaf manzanita is a shrub that is endemic to the Santa Cruz Sandhills and is listed as State Rank 1B.2, which is for plants that are the most rare and endangered in California and elsewhere” (CNPS 2017). It is also considered sensitive by the County of Santa Cruz General Plan (1994). Silverleaf manzanita occurs in the sand chaparral, particularly the patches where the Pace access trail meets the Pace Property (McGraw 2017). The southern patches of sand chaparral are dominated by native shrubs found in the maritime chaparral on other sandy but non-Zayante soils including Santa Cruz Mountains manzanita (*Arctostaphylos crustacean* ssp. *crinita*) and glossy leaf manzanita (*A. nummularia*), though may feature scattered silverleaf manzanita as well (McGraw 2017). This shrub may also occur at low abundance in the

understory of the adjacent mixed evergreen forest, particularly adjacent to areas mapped as sandhills (McGraw 2017).

Impacts

Individual silverleaf manzanita shrubs would be avoided by aligning the trail around existing shrubs so no existing silverleaf manzanita shrubs would need to be removed or extensively pruned during construction.

The proposed trails and interpretive signage along the trail would promote education and awareness around sensitive species, including the silverleaf manzanita. In addition, the potential for interpretive and guided nature walks through this area would increase the educational potential related to these species.

With implementation of the following mitigation measures, impacts to silverleaf manzanita would be less than significant.

Mitigation Measures

- BIO-1: All workers involved in trail construction will attend a training led by a qualified biologist on how to identify silverleaf manzanita and each of the other five special-status species listed above prior to the commencement of construction activities.
- BIO-2: Avoid impacts to silverleaf manzanita to the extent feasible. Where complete avoidance is not feasible, do not remove. Conduct only minimal pruning that affects no more than half of the branching volume of any individual.

Ben Lomond Buckwheat

Ben Lomond buckwheat is a perennial herb that is also endemic to the sandhills and State Rank 1B.1, reflecting that it is rare and endangered in California and elsewhere (CNPS 2017). During reconnaissance for the Biotic Report, the species was observed within the sand parkland area only; however, a focal species survey might reveal that it also occurs in other mapped sandhills habitat, particularly the sand chaparral, or perhaps in adjacent non-sandhills habitat.

Impacts

Trail construction could impact Ben Lomond buckwheat if individual specimens are removed during construction. However, trail alignments are not expected to encounter any existing populations, and with implementation of the following mitigation measures, impacts would be less than significant.

Mitigation Measures

See mitigations measure BIO-1 above.

BIO-3: Conduct pre-construction surveys for Ben Lomond buckwheat, Ben Lomond spineflower and Ben Lomond wallflower along the flagged trail alignment by a qualified biologist, in the spring or in the optimal survey time, prior to trail construction. Re-route any trail segments that would impact any of these three herbaceous plants. Any re-routing of trail alignments must be consistent with BMPs listed in I-3.

Ben Lomond Spineflower

Ben Lomond spineflower is an annual herb that is federally listed as endangered and has a State Rank of 1B.1 (CNPS 2017). During reconnaissance for the Biotic Report, this disturbance-adapted plant species was observed in the sand parkland community only. As with Ben Lomond buckwheat, a focal species survey might reveal that it also occurs in other mapped sandhills habitat, particularly the sand chaparral, or perhaps in open canopy conditions adjacent non-sandhills habitat (McGraw 2017).

Impacts

Trail construction could impact Ben Lomond spineflower if individual specimens are removed during construction. However, populations have not been observed within the proposed trail alignment and with implementation of the following mitigation measures, impacts would be less than significant.

Mitigation Measures

See mitigations measures BIO-1 and BIO-3 above.

Ben Lomond Wallflower

Ben Lomond wallflower is an annual herb that is state and federally listed as endangered and has a State Rank of 1B.1 (CNPS 2017). During reconnaissance for the Biotic Report, this species was observed on the rock outcropping in the center of the sand parkland community only. It has only a small probability of occurring outside this mapped community type (e.g. in the sand chaparral) (McGraw 2017). The trail alignment has been sited to avoid this sand parkland community.

Impacts

Trail construction could impact Ben Lomond wallflower if individual specimens are removed during construction. However, populations have not been observed within the proposed trail alignment, and with implementation of the following mitigation measures, impacts would be less than significant.

Mitigation Measures

See mitigations measures BIO-1 and BIO-3 above.

Mount Hermon June Beetle

The portions of the project area mapped as sandhills, as well as the adjacent areas mapped as non-sandhills (mixed evergreen forest and redwood forest), have the potential to support the Mount Hermon June beetle—an insect federally listed as endangered. Mount Hermon June Beetle feeds as a fossorial larva on plant roots and associated mycorrhizae, and then emerges as an adult in late spring and summer in order to mate. Mount Hermon June beetle occurs in areas with Zayante soils that feature a variety of vegetation, including sand chaparral, sand parkland, and ponderosa pine forest, as well as areas that have been landscaped and feature ornamental vegetation (McGraw 2017). Perhaps because it lives 99% of its life belowground, the Mount Hermon June beetle has been found within developed areas and other areas impacted by human uses, including mowed areas subject to recreation and denuded areas, such as vehicle turnouts along roads (McGraw 2017).

The Mount Hermon June beetle has been observed within the private residential property north of the project site, and in the sandhills within the Quail Hollow Ecological Reserve and the nearby Quail Hollow Quarry (USFWS 2009). Portions of the sandhills habitat that feature very thin soils overlaying sandstone, particularly the eroded areas where soil has been washed away exposing sandstone bedrock, might not support the fossorial Mount Hermon June beetle, if the soil is of insufficient depth (McGraw 2017). This species has been observed emerging from other areas of thin soil (J. McGraw, pers. obs. 2016); in the absence of a survey, areas featuring at least some soil (not just sandstone at the surface), the species should be presumed to be present.

Impacts

Mount Hermon June beetle may be encountered during soil disturbance required for trail construction in sandhills areas. Mount Hermon June beetle could also be affected by loss of vegetation and/or soil compaction from trail construction and use, which would limit their ability to inhabit soil underlying the trail corridor.

The County Parks Department would adhere to all federal requirements related to encounters with this federally-listed species. Prior to any soil disturbance in sandhills areas, the County Parks Department would obtain a take permit from the USFWS, either through a recovery permit issued for projects that promote recovery of listed species under Section 10(a)(1)(A) of the Endangered Species Act (ESA), or through preparation of a Habitat Conservation Plan (HCP) under Section 10(a)(1)(B) of the ESA.

With implementation of the following mitigation measures, impacts would be less than significant.

Mitigation Measures

See mitigations measure BIO-1 above.

BIO-4: Minimize potential impacts to Mount Hermon June beetle through the following measures in sandhills habitat:

1. Limit removal of material on the trail surface to only limbs, herbaceous plant cover, and litter on the soil surface to make a clear and walkable pathway.
2. Avoid or minimize soil disturbance by avoiding steep cross slopes that require cutting for trail construction. Any trail with cross slopes greater than 30 percent that requires minor grading should be constructed with hand tools and supervised by a USFWS-approved biologist who can relocate any life stages of Mount Hermon June beetle that may be encountered.
3. No trail construction will occur between May 15 and August 15, the flight season for the Mount Hermon June beetle. During flight season, adults may fly into disturbed areas where they could be impacted by digging activities.
4. Limit the trail width to an average width of 18 inches to minimize trail impacts. Limit trail construction activities to the trail footprint and avoid additional soil disturbance or compaction to the adjacent area, such as standing and walking during trail construction, and for the staging of materials and tools.

Zayante Band-Winged Grasshopper

The sand parkland habitat in the project area has limited potential to support the Zayante band-winged grasshopper—a federally endangered insect that requires open sunlit, sparsely vegetated areas in Zayante soils. The likelihood that this species occurs in the project area is limited due to the small area of the onsite sand parkland (2.0 acres), the steep slopes within it, and the dense forest and chaparral vegetation surrounding it (McGraw 2017). The nearest population of the Zayante band-winged grasshopper is located 0.6 miles south-southeast of the project area within the Quail Hollow Ecological Reserve east of the Park (USFWS 2009). The species may also inhabit potentially suitable sand parkland habitat located 0.35 miles southwest of the project area within the park, just west of the Sunset Trail; no known surveys have been conducted in this area (USFWS 2009).

Impacts

Although Zayante band-winged grasshopper individuals could be impacted if present during trail construction, this species has not been identified in the project area and is not likely to occur as described above. In addition, no sand parkland habitat would be impacted by trail construction. With implementation of the following mitigation measures, no take of this species would occur and impacts would be less than significant.

Mitigation Measures

See mitigations measures BIO-1 and BIO-3, above.

Migratory Bird Treaty Act

Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10 including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). All migratory bird species are protected by the MBTA. Any disturbance that causes direct injury, death, nest abandonment, or forced fledging of migratory birds, is restricted under the MBTA. Any removal of active nests during the breeding season or any disturbance that results in the abandonment of nestlings is considered a 'take' of the species under federal law.

Impacts

The project area provides potential nesting habitat for birds of prey and birds listed by the Migratory Bird Treaty Act (MBTA). No nests or evidence of past nests were observed in the project area during the general biological survey conducted on February 24, 2017. However, nests could become established in the vegetation to be removed before construction begins.

Impacts to nests could occur during trail construction if nest are located in the shrub layer, and were removed during trail construction. In addition, nests in the shrub layer may be disturbed by trail construction from noise and presence of people during construction. Since trail construction would be done with hand tools only, noise impacts would be minimal unless nests are located in the shrub layer and directly within 50-feet of the trail alignment, or 250 feet of the trail alignment where chainsaws may be used during construction.

As a result, implementation of the following mitigation would reduce impacts to below a level of significance.

Mitigation Measures

BIO-5: Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. The breeding season for migratory birds and birds of prey is generally 1 February through 31 August. Implementation of the following measures will avoid potential impacts.

1. If construction begins outside the 1 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests.
2. If construction is scheduled to begin between 1 February and 31 August then a qualified biologist shall conduct a preconstruction survey for active nests. The survey will include a 50-foot radius for all areas and 250-foot radius in areas where chainsaws may be used, in line of site from the trail alignment for nesting birds of prey and other

nesting MBTA protected birds within the shrub layer that could potentially be impacted by trail construction. The survey will be conducted from the proposed alignment within one two weeks prior to construction. If no active nest of a bird of prey or MBTA bird is found, then no further mitigation measures will be required.

3. If an active nest of a bird of prey or MBTA bird is found in the shrub layer, then the biologist shall determine a buffer suitable to protect the nest until fledging. The size of suitable buffers depends on the species of bird, the location of the nest relative to the Project, Project activities during the time the nest is active, and other Project specific conditions.
 4. No construction activity shall be allowed in the buffer until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller buffer will protect the active nest. The buffer may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring.
 5. If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.
2. *Have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations (e.g., wetland, native grassland, special forests, intertidal zone, etc.) or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Discussion:

The project would not involve construction within the riparian corridor for any perennial streams. The trail would cross one ephemeral drainage swale on the upper portion of the Pace Property. Work within proximity to riparian areas will adhere to the following BMPs:

- Trail alignments would not cross any drainages unless avoidance is infeasible.
- Trail alignments would not get closer than 50 feet from the top of bank of any perennial creeks.
- Where a trail alignment must cross an ephemeral drainage, a simple puncheon structure that completely spans the channel without disturbing between the banks would be used. The puncheon supports would be setback appropriately from the top

of bank to eliminate erosion or collapsing of the banks from the weight of the structure.

- Where a trail alignment must cross an ephemeral drainage, trail construction within fifty feet of the drainage would not include removal of any shrubs or trees that could be considered part of the riparian cover.

With adherence to these BMPs, no riparian woodland would be disturbed. Impacts would be less than significant.

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| 3. <i>Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: There are no mapped or designated federally protected wetlands on or adjacent to the project site. Therefore, no impacts would occur from project implementation.

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| 4. <i>Interfere substantially with the movement of any native resident or migratory fish or wildlife species or migratory wildlife corridors, or impede the use of native wildlife nursery sites?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: The proposed project does not involve any activities that would interfere with the movements or migrations of fish or wildlife, or impede use of a known wildlife nursery site.

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| 5. <i>Conflict with any local policies or ordinances protecting biological resources (such as the Sensitive Habitat Ordinance, Riparian and Wetland Protection Ordinance, and the Significant Tree Protection Ordinance)?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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Discussion: Although the project would conflict with any Sensitive Habitat Protection Ordinance, mitigation would be incorporated to reduce significant impacts to a less than significant level. In addition, the proposed project would be consistent with the Quail Hollow County Park Master Plan. As discussed above, impacts to sensitive habitat would occur requiring mitigation. See complete discussion in Section D-1.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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| 6. 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"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

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| 7. Produce nighttime lighting that would substantially illuminate wildlife habitats? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: All construction would be completed during daylight hours. No lights are included in the project and no nighttime lighting impacts from project implementation would occur.

E. CULTURAL RESOURCES

Would the project:

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| 1. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: There are no existing structures within the project area. As a result, no impacts to historical resources would occur from project implementation.

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| 2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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Discussion: A portion of the Pace Property parcel, near Newell Creek, is mapped for archeological resources. The proposed trails do not go within 500 feet of Newell Creek, and are outside the anticipated area of potential archaeological resources. Further, trail construction activities require minimal grading using hand tools, and in areas that do not have cross slopes consist only of removing surface vegetation, duff, and fallen limbs or similar materials and do not require digging.

Pursuant to County Code Section 16.40.040, if at any time in the preparation for or process of excavating or otherwise disturbing the ground, any human remains of any age, or any artifact or other evidence of a Native American cultural site which reasonably appears to exceed 100 years of age are discovered, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in County Code Chapter 16.40.040.

Impacts

There is the possibility of unidentified (e.g., buried) cultural resources being found during trail construction involving earth disturbance due to the proximity of mapped archaeological resources. With implementation of the following mitigation measure, impacts would be less than significant.

Mitigation Measures

CUL-1: Pursuant to Sections 16.40.040 of the Santa Cruz County Code, if archeological resources are uncovered during construction, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in County Code Chapter 16.40.040.

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| 3. Disturb any human remains, including those interred outside of dedicated cemeteries? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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Discussion: Impacts are expected to be less than significant. However, pursuant to Section 16.40.040 of the Santa Cruz County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.

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| 4. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: No unique paleontological resources or unique geologic features are known to occur in the vicinity of the proposed project. No impacts are anticipated.

F. GEOLOGY AND SOILS

Would the project:

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| 1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| A. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

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| B. Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| C. Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| D. Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion (A through D): The project site is located outside of the limits of the State Alquist-Priolo Special Studies Zone (County of Santa Cruz GIS Mapping, California Division of Mines and Geology, 2001). However, the project site is located approximately four miles south of the San Andreas fault zone, and approximately one mile south of the Zayante fault zone. While the San Andreas fault is larger and considered more active, each fault is capable of generating moderate to severe ground shaking from a major earthquake. Consequently, large earthquakes can be expected in the future. The October 17, 1989 Loma Prieta earthquake (magnitude 7.1) was the second largest earthquake in central California history.

All of Santa Cruz County is subject to some hazard from earthquakes. However, the project site is not located within or adjacent to a County or state mapped fault zone, therefore the potential for ground surface rupture is low. The project site is likely to be subject to strong seismic shaking during the life of the improvements. The improvements do not include any structures, which should reduce the hazards of seismic shaking and liquefaction to a less than significant level. There is no indication that landsliding is a significant hazard at this site.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 2. 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: Following a review of mapped information and a field visit to the site, there is no indication that the development site is subject to a significant potential for damage caused by any of these hazards.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 3. Develop land with a slope exceeding 30%? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: There are slopes that exceed 30% on the property. Some proposed trails will traverse cross slopes of greater than 30%. See BMPs under section I-3, below, for discussion

of trail construction in sloped areas. With adherence to these BMPs, no drainage or stability impacts would occur in sloped areas, and impacts would be less than significant.

4. *Result in substantial soil erosion or the loss of topsoil?*

Discussion: Potential soil erosion related to trail construction would be minimal, and is described with complete discussion in sections I-1 and I-3, below. With adherence to BMPs described under these two sections, impacts related to erosion or loss of topsoil would be less than significant.

5. *Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?*

Discussion: There is no indication that the project site is subject to substantial risk caused by expansive soils. Therefore, no impact is anticipated.

6. *Have soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

Discussion: No new septic systems are proposed. The project would not include any new sanitary facilities or expansion of use of existing facilities. Therefore, no impacts are anticipated.

7. *Result in coastal cliff erosion?*

Discussion: The proposed project is not located in the vicinity of a coastal cliff or bluff; and therefore, would not contribute to coastal cliff erosion. No impact is anticipated.

G. GREENHOUSE GAS EMISSIONS

Would the project:

1. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Discussion: The proposed project includes work using hand tools only and would not use fossil fuels during trail construction. Therefore the project would not be responsible for an incremental increase in green house gas emissions and no impacts are expected.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: See the discussion under G-1 above. No impacts are anticipated.

H. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Create a significant hazard to the public or the environment as a result of the routine transport, use or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not create a significant hazard to the public or the environment. No routine transport or disposal of hazardous materials is proposed. No herbicides or chemicals would be allowed by the County Parks Department per County General Plan Policy 5.1.8. No impacts are expected.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: Please see discussion under H-1 above. No project impacts are expected.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. 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"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project is not within a quarter mile of a school and does not involve any emission of hazardous materials or substances. No impacts are anticipated.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. 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"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project site is not included on the list of hazardous sites in Santa Cruz County compiled pursuant to Government Code Section 65962.5. No impacts are anticipated from project implementation.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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5. 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 for people residing or working in the project area?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project is not located within two miles of a public airport or public use airport. No impact is anticipated.

6. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project is not located in the vicinity of a private airstrip. No impact is anticipated.

7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|--------------------------|

Discussion: The proposed project would not conflict with implementation of the County of Santa Cruz Local Hazard Mitigation Plan 2015-2020 (County of Santa Cruz, 2020). Therefore, no impacts to an adopted emergency response plan or evacuation Plan would occur from project implementation.

8. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?
- | | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: Although the proposed project is located in a Fire Hazard Area, the project does not include any structures. Impacts would be less than significant.

I. HYDROLOGY, WATER SUPPLY, AND WATER QUALITY

Would the project:

1. Violate any water quality standards or waste discharge requirements?
- | | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The project involves the construction of 2.5 miles of new trails within Quail Hollow Ranch County Park. With an average trail width of two feet, construction of the

proposed trail network would disturb an area of 26,400 square feet. The project does not create any impervious surfaces.

Because the project area is less than one acre, the project does not require a State NPDES permit or Stormwater Pollution Prevention Permit from the Regional Water Quality Control Board.

The project would not discharge runoff either directly or indirectly into a public or private water supply. No activities are proposed that would contribute contaminants.

Potential siltation from the proposed project would be addressed through implementation of erosion control best management practices (BMPs):

1. Enclose and cover any exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways.
2. Prohibit the placement of earth or organic material where it may be directly carried into a stream, swale, ditch, marsh, pond, or body of standing water.

With adherence to these BMPs, no water quality standards or waste discharge requirements would be violated. Impacts would be less than significant.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <p>2. <i>Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</i></p> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The Project does not involve use of any water for construction or operation, and so would have no impacts to groundwater supplies.

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|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <p>3. <i>Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?</i></p> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The proposed project is located within the watersheds of both Newell Creek and Lompico Creek, and construction of new trails would involve minor alterations to drainage patterns on site.

The following water quality protection and erosion and sediment control best management practices (BMPs) would be implemented, based on standard trail construction practices and County Parks standards, to minimize construction and post-construction-related mobilization of sediment in the project area.

These BMPs would achieve maximum sediment removal and represent the best available technology that is economically achievable and are subject to review and approval by the County. The County would perform routine inspections of the construction area to verify the BMPs are properly implemented and maintained. The County would notify contractors and/or volunteers immediately if there is a noncompliance issue and will require compliance.

The BMPs will include, but are not limited to, the following:

1. Trails alignments will be sited generally along contour. Trail grade will not exceed 10 percent at any point, and average trail grade will not exceed 7 percent.
2. All trails will be outsloped to minimize the amount of water flow down the length of the trail.
3. Frequent grade reversals or rolling dips should be built into a trail (as a backup to out-sloping), to avoid water flow along a trail. Rolling dips are long and gentle features (4 to 12 feet long) that avoid the short and abrupt style of traditional drainage or water bars. These should be placed at a minimum of every fifty feet where the trail grade exceeds five percent. They should be sited to enhance natural grade dips. Drainage bars, constructed of wood or native stone, may be installed where rolling dips are not feasible.
4. Where cross slopes necessitate a cut for trail construction, trails should be cut on a full bench, rather than a combination of cut and fill. The cut material should be broadcast downslope, unless the trail is near a creek, in which case it should be transported at least 100 feet from the drainage and distributed and cast downslope along other portions of trail. Cut material can also be utilized for the ramp section of rolling dips if it is compacted one layer at a time.
5. In order to reduce erosion and maintenance problems during construction, disturbance to the soil surface should be kept to a minimum.
6. Local drainage areas on the trail should be kept as small as possible. Increasing the frequency of rolling dips is an easy way to reduce the area of each drainage area. Reducing tread width of the trail is another way to reduce the tread watershed. Compacted trail surfaces produce more surface runoff than the uncompacted soil next to the trail; narrow trails would produce less concentrated runoff than wide trails (with all other factors being equal).

7. Where trails are located near ephemeral drainages, extra precautions should be taken, such as using native paving stones or other rock work to armor the trail surface.
8. Constructed creek crossings should not alter the cross-sectional shape of the channel or floodplain and should not place any footings or material inside the channel or alter the channel in any way.
9. The approach to a creek crossing should slope downward toward the creek, and climb when traveling away from the creek, so that in the event of a blockage in the channel, the creek water would not be diverted to flow along the trail.

With adherence to these BMPs, impacts would be less than significant.

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|--|--------------------------|--------------------------|--------------------------|--------------------------|
| 4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or 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 type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|--------------------------|

Discussion: See response to I-3 above. Impacts from project construction would be less than significant.

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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems, or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project does not include creation of any impervious surfaces and there are no storm drainage facilities that would receive runoff from the project site or would be affected by the project site. No impacts are anticipated.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 6. Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: Please see discussion under I-1 and I-3 above. Impacts would be considered less than significant with the implementation of BMPs.

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|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project does not include any housing or buildings, and according to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated May 16, 2012, no portion of the project site lies within a 100-year flood hazard area.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 8. <i>Place within a 100-year flood hazard area structures which would impede or redirect flood flows?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project does not include any structures, and according to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated May 16, 2012, no portion of the project site lies within a 100-year flood hazard area.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 9. <i>Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not increase the risk of flooding and would not lead to the failure of a levee or dam. No impact would occur.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 10. <i>Inundation by seiche, tsunami, or mudflow?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: There are two primary types of tsunami vulnerability in Santa Cruz County. The first is a teletsunami or distant source tsunami from elsewhere in the Pacific Ocean. This type of tsunami is capable of causing significant destruction in Santa Cruz County. However, this type of tsunami would usually allow time for the Tsunami Warning System for the Pacific Ocean to warn threatened coastal areas in time for evacuation (County of Santa Cruz 2010).

The more vulnerable risk to the County of Santa Cruz is a tsunami generated as the result of an earthquake along one of the many earthquake faults in the region. Even a moderate earthquake could cause a local source tsunami from submarine landsliding in Monterey Bay. A local source tsunami generated by an earthquake on any of the faults affecting Santa Cruz County would arrive just minutes after the initial shock. The lack of warning time from such a nearby event would result in higher casualties than if it were a distant tsunami (County of Santa Cruz 2010).

The project site is located approximately 9 miles inland, approximately 8 to 9 miles beyond the effects of a tsunami. In addition, no impact from a seiche or mudflow is anticipated. No impact would occur.

J. LAND USE AND PLANNING

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project does not include any element that would physically divide an established community. No impact would occur.

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| 2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|

Discussion: The proposed project does not conflict with any regulations or policies adopted for the purpose of avoiding or mitigating an environmental effect. General Plan policy 5.1.6 (Development Within Sensitive Habitats) states: "Any proposed development within or adjacent to [sensitive habitats] must maintain or enhance the functional capacity of the habitat". Please see complete discussion under Section D-5. Mitigation required in Section D, Biological Resources, ensures consistency with the County's sensitive habitat ordinance. The proposed addendum would not conflict with the Quail Hollow Ranch County Park Master Plan. Impacts would be considered less than significant with the implementation of required mitigation measures.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. No impact would occur.

K. MINERAL RESOURCES

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. 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"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The site does not contain any known mineral resources that would be of value to the region and the residents of the state. Therefore, no impact is anticipated from project implementation.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. <i>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?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project site is zoned Residential Agriculture, which is not considered to be an Extractive Use Zone (M-3) nor does it have a Land Use Designation with a Quarry Designation Overlay (Q) (County of Santa Cruz 1994). Therefore, no potentially significant loss of availability of a known mineral resource of locally important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use plan would occur as a result of this project.

L. NOISE

Would the project result in:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. <i>Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project does not include any uses that would generate new noise or expose people to existing noise. Construction would be done with hand tools, which may include chainsaws in discrete locations as needed. There will not be substantial increased noise levels associated with project construction. No impacts are anticipated.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. <i>Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The use of hand construction equipment would not generate vibration in the project area. Because of this, none of the area residences would experience significant groundborne vibration or groundborne noise levels during construction activities associated with the proposed project. Therefore, there are no impacts anticipated.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. <i>A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not result in a permanent increase in the ambient noise level. The main source of ambient noise in the project area is traffic noise along Quail Hollow Road. However, no substantial increase in traffic trips is anticipated as a result of the proposed project. No impacts are expected.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. <i>A substantial temporary or periodic increase in ambient noise levels in the</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

project vicinity above levels existing without the project?

Discussion: The project would not include any uses that would generate new noise or expose people to existing noise. Construction would be done with hand tools and there would not be increased noise levels associated with project construction. No impacts are anticipated.

5. *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 expose people residing or working in the project area to excessive noise levels?*
-

Discussion: The proposed project is not within two miles of a public airport. Therefore, the proposed project would not expose people residing or working in the project area. No impact is anticipated.

6. *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*
-

Discussion: The proposed project is not within two miles of a private airstrip. Therefore, the proposed project would not expose people residing or working in the project area. No impact is anticipated.

M. POPULATION AND HOUSING

Would the project:

1. *Induce substantial 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)?*
-

Discussion: The proposed project would not create any housing, would not affect any road or increase its capacity, and would not relate to any other infrastructure. No impact would occur.

2. *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*
-

Discussion: The proposed project would not displace any existing housing. No impact would occur.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not displace any people as the project is intended to provide additional trails through County-owned open space land. No impact would occur.

N. PUBLIC SERVICES

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. 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: | | | | |
| a. Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Other public facilities; including the maintenance of roads? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion (a through e): The project involves expanding the trail system at Quail Hollow Ranch County Park, and would not increase the need for any public services related to increasing population. No impacts are anticipated.

O. RECREATION

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would add about 2.5 miles of trails to the existing 4-mile trail network at Quail Hollow Ranch County Park. There is not an expected increase in use associated with this incremental increase in miles of trail network, and so this project would not contribute to physical deterioration of the facility, which currently supports an estimated

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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16,060 visitors per year (County Parks Department). This is also a project that is designed to accommodate additional recreational demand on an existing facility, and less deterioration of the existing facilities would occur. Impacts would be considered less than significant.

2. 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?

Discussion: The proposed project as described is an expansion of recreational facilities at Quail Hollow Ranch County Park, in the expansion of the park's trail network. Potential impacts associated with this recreational facility are described throughout this initial study, and impacts identified in the Biology (BIO-1 through BIO-5) and Cultural Resources (CUL-1 and CUL-2) sections require mitigation. The project does not propose or require the expansion or construction of any related or additional recreational facilities. With the mitigation measures described in the Biology and Cultural Resources Sections, impacts would be less than significant.

P. TRANSPORTATION/TRAFFIC

Would the project:

1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Discussion: The County Parks Department does not anticipate an increase in number of visitors at Quail Hollow Ranch County Park resulting from the project. There would be no impact because no additional traffic would be generated.

2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Discussion: In 2000, at the request of the Santa Cruz County Regional Transportation Commission (SCCRTC), the County of Santa Cruz and other local jurisdictions exercised the option to be exempt from preparation and implementation of a Congestion Management Plan (CMP) per Assembly Bill 2419. As a result, the County of Santa Cruz no longer has a Congestion Management Agency or CMP. The CMP statutes were initially established to create a tool for managing and reducing congestion; however, revisions to those statutes progressively eroded the effectiveness of the CMP. There is also duplication between the CMP and other transportation documents such as the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP). In addition, the goals of the CMP may be carried out through the Regional Transportation Improvement Program and the Regional Transportation Plan. Any functions of the CMP which are useful, desirable and do not already exist in other documents may be incorporated into those documents.

The proposed project would not conflict with either the goals and/or policies of the RTP or with monitoring the delivery of state and federally-funded projects outlined in the RTIP. No impact would occur.

3. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

Discussion: No change in air traffic patterns would result from project implementation. Therefore, no impact is anticipated.

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

Discussion: The proposed project consists of new trail network and restoration activities on County-owned open space land. No increase in hazards would occur from project design or from incompatible uses. No impact would occur from project implementation.

5. *Result in inadequate emergency access?*

Discussion: The project would not alter the road or existing emergency vehicle access to Quail Hollow Ranch County Park in any way. The expansion of the trail network would expand the existing area in the park that has emergency access solely by foot along the trail. This incremental increase in the trail network would not create a significant change in the adequacy of emergency access. No impact would occur.

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project does not involve any road crossings or bicycle or transit facilities. Trail design would comply with current requirements to prevent potential hazards to pedestrians. No impact would occur.

Q. TRIBAL CULTURAL RESOURCES

1. 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. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources Code section 5020.1(k), or | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| B. 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. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion: The project proposes to establish an expanded trail network and native plant restoration activities at Quail Hollow Ranch County Park. Section 21080.3.1(b) of the California Public Resources Code (AB 52) requires a lead agency formally notify a California Native American tribe that is traditionally and culturally affiliated within the geographic area of the discretionary project when formally requested. As of this writing, no California Native American tribes traditionally and culturally affiliated with the Santa Cruz County region

have formally requested a consultation with the County of Santa Cruz (as Lead Agency under CEQA) regarding Tribal Cultural Resources. As a result, no Tribal Cultural Resources are known to occur in or near the project area. Therefore, no impact to the significance of a Tribal Cultural Resource is anticipated from project implementation.

R. UTILITIES AND SERVICE SYSTEMS

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not generate wastewater. Therefore, wastewater treatment requirements would not be exceeded. No impacts would occur.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 2. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed trail and restoration project would not require water or wastewater treatment. No impacts are expected to occur.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 3. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed trail and restoration project would not generate increased runoff; therefore, it would not result in the need for new or expanded drainage facilities. No impact would occur.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 4. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed project would not use any water during or after construction. No water use would be required during the operational phase of the project. No impacts are expected to occur from project implementation.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 5. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

capacity to serve the project's projected demand in addition to the provider's existing commitments?

Discussion: The proposed project would not use water during construction and no wastewater would be generated. No water use would be required during the operational phase of the project. No impacts are expected to occur from project implementation.

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 6. <i>Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The proposed would not generate solid waste during the construction or operational phase of the project. No impact is anticipated.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 7. <i>Comply with federal, state, and local statutes and regulations related to solid waste?</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project would comply with all federal, state, and local statutes and regulations related to solid waste disposal. No impact would occur.

S. MANDATORY FINDINGS OF SIGNIFICANCE

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. <i>Does the project have the potential to 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, reduce the number or restrict the range of a rare or endangered 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?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|

Discussion: The potential to 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, 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 were considered in the response to each question in Section III of this Initial Study. Resources that have been evaluated as significant would be potentially impacted by the project, particularly biological and cultural resources. However, mitigation has been included that clearly reduces these effects to a level below

significance. This mitigation includes minimization and avoidance measures for special-status species and cultural resources. As a result of this evaluation, there is no substantial evidence that, after mitigation, significant effects associated with this project would result. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

2. 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)?
-

Discussion: In addition to project specific impacts, this evaluation considered the projects potential for incremental effects that are cumulatively considerable. As a result of this evaluation, there were determined to be no potentially significant cumulative effects related to the proposed project with the implementation of mitigation measures. As a result of this evaluation, there is no substantial evidence that there are cumulative effects associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?
-

Discussion: In the evaluation of environmental impacts in this Initial Study, the potential for adverse direct or indirect impacts to human beings were considered in the response to specific questions in Section III (A through Q). As a result of this evaluation, there were determined to be no potentially significant effects to human beings related to the project. As a result of this evaluation, there is no substantial evidence that there are adverse effects to human beings associated with this project. Therefore, this project has been determined not to meet this Mandatory Finding of Significance.

IV. REFERENCES USED IN THE COMPLETION OF THIS INITIAL STUDY

California Department of Conservation. 1980

Farmland Mapping and Monitoring Program Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance Santa Cruz County U.S. Department of Agriculture, Natural Resources Conservation Service, soil surveys for Santa Cruz County, California, August 1980.

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Inventory of rare and endangered plants of California. Sacramento, CA. Accessed on-line at: <http://www.rareplants.cnps.org/>

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County of Santa Cruz Climate Action Strategy. Approved by the Board of Supervisors on February 26, 2013.

County of Santa Cruz, 2015

County of Santa Cruz Local Hazard Mitigation Plan 2015-2020. Prepared by the County of Santa Cruz Office of Emergency Services.

County of Santa Cruz, 1994

1994 General Plan and Local Coastal Program for the County of Santa Cruz, California. Adopted by the Board of Supervisors on May 24, 1994, and certified by the California Coastal Commission on December 15, 1994.

MBUAPCD, 2008

Monterey Bay Unified Air Pollution Control District (MBUAPCD), CEQA Air Quality Guidelines. Prepared by the MBUAPCD, Adopted October 1995, Revised: February 1997, August 1998, December 1999, September 2000, September 2002, June 2004 and February 2008.

MBUAPCD, 2013a

Monterey Bay Unified Air Pollution Control District, NCCAB (NCCAB) Area Designations and Attainment Status – January 2013. Available online at [http://www.mbuapcd.org/mbuapcd/pdf/Planning/Attainment Status January 2013 2.pdf](http://www.mbuapcd.org/mbuapcd/pdf/Planning/Attainment%20Status%20January%202013%202.pdf)

MBUAPCD, 2013b

Triennial Plan Revision 2009-2011. Monterey Bay Air Pollution Control District. Adopted April 17, 2013.

McGraw, Jodi, 2017

Biotic Assessment for Pace Trail Project. Prepared for County of Santa Cruz Department of Parks, Open Space and Cultural Services.

U.S. Department of Agriculture, 1980.

Soil Survey of Santa Cruz County. Soil Conservation Service, United States Department of Agriculture and University of California.

U.S. Fish and Wildlife Service, 2009

Zayante band-winged grasshopper and Mount Hermon June beetle five- year review. US Fish and Wildlife Service. August 2009.



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Attachment 1

Mitigation Monitoring and Reporting Program



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County of Santa Cruz

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
 (831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
 KATHLEEN MOLLOY PREVISICH, PLANNING DIRECTOR

MITIGATION MONITORING AND REPORTING PROGRAM for

Quail Hollow Ranch County Park Master Plan Addendum Project
 Application No. 171295, September 25, 2017

No.	Environmental Impact	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Timing of Compliance
Biological Resources					
BIO-1	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 Wildlife, or U.S. Fish and Wildlife Service?	All workers involved in trail construction will attend a training led by a qualified biologist on how to identify silverleaf manzanita and each of the other five special-status species listed above prior to being involved in construction activities. Avoid impacts to silverleaf manzanita to the extent feasible. Where complete avoidance is not feasible, conduct only minimal pruning that affects no more than half of the branching volume of any individual.	Department of Parks, Open Space and Cultural Services (County Parks Department)	Compliance monitored by the County Planning Department and County Parks Department	To be implemented prior to and during project construction
BIO-2			County Parks Department	Compliance monitored by the County Planning Department and County Parks Department	To be implemented prior to and during project construction
BIO-3		Conduct pre-construction surveys for Ben Lomond buckwheat, Ben Lomond spineflower and Ben Lomond wallflower along the flagged trail alignment by a qualified biologist, in the spring or in the optimal survey time, prior to trail construction. Any identified species will be noted, and the trail will be re-aligned to avoid these species. Any re-routing of trail alignments must be consistent with BMP's listed in I-3. Minimize potential impacts to Mount Hermon June beetle through the following measures in sandhills habitat: a. Limit removal of material on the trail surface to only limbs, herbaceous plant cover, and litter on the soil surface to make a clear and walkable pathway. b. Avoid or minimize soil disturbance by avoiding steep cross slopes that require cutting for trail construction. Any trail with cross slopes greater than 30 percent that requires minor grading should be constructed with hand tools and supervised by a USFWS-approved biologist who can relocate any life stages of Mount Hermon June beetle that may be encountered. c. No trail construction will occur between May 15 and August 15, the flight season for the Mount Hermon June beetle. During flight season, adults may fly into disturbed areas where they could be impacted by digging activities. d. Limit the trail width to an average width of 18 inches to minimize trail impacts. Limit trail construction activities to the trail footprint and avoid	County Parks Department	Compliance monitored by the County Planning Department and County Parks Department	To be implemented prior to and during project construction
BIO-4			County Parks Department	Compliance monitored by the County Planning Department and County Parks Department	To be implemented prior to and during project construction

No.	Environmental Impact	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Timing of Compliance
BIO-5		<p>additional soil disturbance or compaction to the adjacent area, such as standing and walking during trail construction, and for the staging of materials and tools.</p> <p>Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. The breeding season for migratory birds and birds of prey is generally 1 February through 31 August. Implementation of the following measures will avoid potential impacts.</p> <p>a. If construction begins outside the 1 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests.</p> <p>b. If construction is scheduled to begin between 1 February and 31 August then a qualified biologist shall conduct a preconstruction survey for active nests. The survey will include a 50-foot radius for all areas and 250-foot radius in areas where chainsaws may be used, in line of site from the trail alignment for nesting birds of prey and other nesting MBTA protected birds within the shrub layer that could potentially be impacted by trail construction. The survey will be conducted from the proposed alignment within one two weeks prior to construction. If no active nest of a bird of prey or MBTA bird is found, then no further mitigation measures will be required.</p> <p>c. If an active nest of a bird of prey or MBTA bird is found in the shrub layer, then the biologist shall determine a buffer suitable to protect the nest until fledging. The size of suitable buffers depends on the species of bird, the location of the nest relative to the Project, Project activities during the time the nest is active, and other Project specific conditions.</p> <p>d. No construction activity shall be allowed in the buffer until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller buffer will protect the active nest. The buffer may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring.</p> <p>e. If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.</p>	County Parks Department	Compliance monitored by the County Planning Department and County Parks Department	To be implemented prior to and during project construction
Cultural Resources					
CUL-1	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	Pursuant to Sections 16.40.040 of the Santa Cruz County Code, if archeological resources are uncovered during construction, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in County Code Chapter 16.40.040.	County Parks Department	Compliance monitored by the County Planning Department and County Parks Department	To be implemented during project construction
CUL-2	Disturb any human remains, including those interred outside of	Pursuant to Section 16.40.040 of the Santa Cruz County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible	County Parks Department	Compliance monitored by the County Planning Department	To be implemented during project construction

No.	Environmental Impact	Mitigation Measures	Responsibility for Compliance	Method of Compliance	Timing of Compliance
	dedicated cemeteries?	persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.		Department and County Parks Department	
Land Use and Planning Resources					
N/A	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, local specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	General Plan policy 5.1.6 (Development Within Sensitive Habitats) states: "Any proposed development within or adjacent to [sensitive habitats] must maintain or enhance the functional capacity of the habitat". Please see complete discussion under Section D-5. Mitigation required in Section D, Biological Resources, ensures consistency with the County's sensitive habitat ordinance.	County Parks Department	Compliance monitored by the County Planning and County Parks Department	To be implemented prior to and during project construction
Recreation					
N/A	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?	Potential impacts associated with this recreational facility are described throughout this initial study, and impacts identified in the Biology (BIO-1 through BIO-5) and Cultural Resources (CUL-1 and CUL-2) sections require mitigation. The project does not propose or require the expansion or construction of any related or additional recreational facilities. With the mitigation measures described in the Biology and Cultural Resources Sections, impacts would be less than significant.	County Parks Department	Compliance monitored by the County Planning and County Parks Department	To be implemented prior to and during project construction

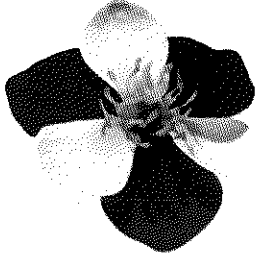
Attachment 2

Biotic Report



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ATTACHMENT 2: BIOTIC REPORT



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October 3, 2017

Will Fourt
Park Planner
County of Santa Cruz Parks, Open Space & Cultural Services
979 17th Avenue
Santa Cruz CA 95062
will.fourt@santacruzcounty.us

RE: Biotic Assessment for Pace Trail Project

Dear Mr. Fourt:

Thank you for the opportunity to assist the County of Santa Cruz Parks Department with work to develop a new trail to the Pace Property, by conducting a biotic assessment of the region being evaluated for installation of the new trail. This letter describes the purpose methods, and results of my assessment and outlines their potential implications for project design and permitting. It also outlines species protection measures that can be implemented for the project to reduce its impacts on special-status species.

Project Background

Based on my discussions with you and my review of the document entitled, *Proposed Trails-Pace Parcel* (County Parks 2016), I understand that County Parks is evaluating construction of a new trail within Quail Hollow Ranch County Park (the park)—a County-owned park in central Santa Cruz County near the town of Ben Lomond. The proposed trail would provide access to and a loop within the Pace Parcel—a disjunct 79.5-acre parcel (APN: 076-25-117) that is north of the park's other nine contiguous parcels, which total approximately 227 acres (Figure 1). The Pace Parcel is separated from the remainder parcels by two privately owned parcels, the eastern of which (APN: 076-301-07) is 60.4 acres and is held by City Team Ministries and is managed as part of Camp MayMac—a retreat and conference center located adjacent to and largely east of the park (Figure 1). I understand from your e-mail correspondence that, in 2017, City Team Ministries granted the County an access easement across their parcel that lies between the Pace Parcel and the remainder of Quail Hollow Ranch County Park, so that County Parks could install a trail.

Though the trail route is approximated and the final alignment is still to be determined, it is proposed to feature two new trail segments (Figure 1; County Parks 2016):

1. **Pace Access Trail:** An approximately 0.4-mile trail segment that would connect the park's existing Sunset Trail, to the Pace Parcel through the western portion of the Camp MayMac property; and
2. **Pace Loop Trail:** an approximately 2.8-acre loop trail that would circle through the portion of the Pace Parcel that is east of Newhall Creek and Newell Creek Road, the latter of which bisects the Pace Parcel.

Although the trail is still being designed, it is proposed to conform with the US Forest Service hiker/pedestrian wilderness single lane class 2 design parameters, and to be built using hand tools only (County Parks 2016).

Assessment Purpose

The purpose of my assessment was to assess the habitat within the portion of the proposed trail alignment, to evaluate the presence of sensitive habitat and the occurrence of special-status species. Specifically, this assessment focused on evaluating the location of the proposed trail with respect to sandhills habitat, which occurs on Zayante coarse sand soil in central Santa Cruz County, and supports special-status plants and animals including: Ben Lomond spineflower (*Chorizanthe pungens* var. *pungens*), Santa Cruz wallflower (*Erysimum teretifolium*), silverleaf manzanita (*Arctostaphylos silvicola*), Ben Lomond buckwheat (*Eriogonum nudum* var. *decurrens*), Mount Hermon June Beetle (*Polyphylla barbata*) or the Zayante Band-Winged Grasshopper (*Trimerotropis infantilis*).

Methods

I characterized and mapped the vegetation throughout the site based on a combination of reconnaissance-level field assessment and geographic information system analyses.

Field Survey

On February 24, I attended a site tour with you, County Environmental Coordinator Matt Johnston, and other County Parks staff and volunteers knowledgeable about the properties and proposed trail alignment. During the site visit, we walked the entire length of the Pace Access Trail and the eastern approximately 80% of the Pace Loop Trail (i.e., up to the redwood grove located along an unmapped ephemeral stream). Based on the aerial imagery and mapped soils, the remaining western portion of the loop trail appears to traverse forests rather than sandhills habitat. The portion of the Pace Parcel west of Newhall Creek Road was not examined as it is outstand of the assessment area (Figure 1)

During the site visit, I evaluated surface soil conditions and plant species composition and marked up a map to delimit major plant communities (i.e., vegetation types). I used a resource-grade GPS (1 m accuracy) to take points for key features encountered during the survey.

GIS Analysis

I mapped vegetation using the GPS data from the field, and aerial image interpretation, which was used to distinguish the signature of various plant species sand communities. For this assessment, I examined the most recent aerial imagery of the County, was captured in 2016. Because this imagery is only available online, I heads-up digitized the vegetation on the property using the 2014 aerial imagery available from the National Agricultural Inventory Program (NAIP), which I could download and incorporation into my GIS. The 103-acre mapping area included the western approximately half of the MayMac Parcel and the portion of the Pace Parcel east of Newall Creek Road (Figure 1).

Results

Existing Conditions and Land Use

The project area is largely undeveloped and features largely intact vegetation dominated by native plant species.

The western portion of the Camp MayMac parcel features an existing trail situated on top of the ridgeline west of the proposed new trail alignment. Examination of aerial imagery from 1991 suggests that this trail was much wider historically and may have even been traversed by off-highway vehicles and equestrians; it has since become overgrown with vegetation in many places and features a eroded segment where run off carved into the underlying sandstone, creating a gully.

The Pace Parcel is undeveloped but appears to feature segments of a dirt roads along its northern border, which may reflect access from adjacent neighbors to the north; alternative, this road may be on the adjoining property to the north (i.e., the parcel boundaries in GIS may be 'off').

Soils

As mapped by the United States Department of Agriculture Soil Conservation Service, the project area features two may soil types: Zayante soils including the Zayante Rock Outcrop Complex, and Nisene-Aptos Complex soils on 50-75% slopes (Figure 2).

Most of the Pace Parcel and the southern portion of the Camp MayMac parcel are mapped as featuring Nisene-Aptos Complex soils—which are loam or sandy loam soils derived from weathered mudstone, sandstone, or shale fine-grained sandstone (USDA 1980). The northeastern corner of the Pace Parcel and northwestern and southwestern corners of the Camp MayMac Parcel are mapped as supporting Zayante soils, which are poorly developed, deep, coarse, sand soils derived from the weathering of uplifted marine sediments and sandstones (USDA 1980).

During my reconnaissance-level site assessment, I visually examined the surface soil conditions and observed that the soils were sandy throughout most of the Pace Access Trail alignment as well as the initial north and south segments of the Pace Loop Trail. These soils were generally light colored (i.e., tan), though in areas of denser vegetation and leaf litter on the soil surface, were darker (e.g., light brown), reflecting their greater organic matter.

Soils observed in the western approximately 90% of the loop trail were featured a greater proportion of silt particles, and were much darker (i.e., dark brown) due to the much higher levels of organic matter. Soils located at the 'border' of what was mapped and generally described as Zayante soil may be transitional in nature, featuring a high proportion of sand than soils of the Nisene-Aptos Complex, but perhaps less sand than typical Zayante sand soils.

Hydrology

Newhall Creek, a perennial stream that is tributary to the San Lorenzo River, traverses the western portion of the project area just east of Newhall Creek Road. During our site assessment, we encountered an ephemeral drainage to Newell Creek which flows northwest along the southwestern portion of the Pace Parcel, where it is lined with coast redwoods (Figure 3). Near the northeastern border corner of the Pace Parcel, we also observed the headwaters of a small, ephemeral drainage which flows southwest to the previously mentioned drainage. The proposed loop trail would cross these ephemeral drainages in multiple locations.

Vegetation and Habitat

This parcel features a complex mosaic of vegetation, which reflects the varying soils, hydrologic conditions, and slope aspects (Figure 3). Dominant plant species within the mapped types intergrade such that the boundaries reflected in the map are general and do not represent sharp discontinuities in many locations.

For purposes of assessing sensitive habitat, I categorize the types into one of two categories (Figure 4):

1. **Sandhills habitat:** Areas that support Zayante sand soil and one or more indicator plant species characteristic of sandhills communities, including ponderosa pine (*Pinus ponderosa*)¹ and silverleaf manzanita. These areas may also support one or more additional endemic sandhills species including Ben Lomond spineflower, Ben Lomond wallflower, and Mount Hermon June Beetle; and
2. **Non-Sandhills habitat:** Areas featuring loamy soil that support redwood or mixed evergreen forest, and do not feature the indicator plant species of the sandhills and likely do not support the Mount Hermon June beetle due to inappropriate soil conditions (i.e., soils that are too silty).

Some of the mapped sandhills habitat includes ecotones between sandhills habitat and non-sandhills habitat which are known or likely to feature transitional soils, either based on direct examination of soils in the field, or as suggested by the plant species composition. Though the vegetation in these areas may lack sandhills indicator species, though scattered ponderosa pines may be present, these areas may support Mount Hermon June beetle, which has been observed inhabiting loam soils supporting oak woodlands, mixed evergreen forests, and other non-sandhills plant communities where they occur adjacent to Zayante sand soil supporting sandhills communities.

Sandhills Habitat

Located in the western portion of the Camp MayMac parcel and the eastern portion of the Pace Parcel, both of which are traversed by the proposed Pace Access Trail, an estimated 31.9 acres are classified as sandhills habitat or sandhills ecotone, which I have generally characterized and mapped as one of four community types (Figures 3 and 4):

1. **Sand Parkland:** This single 2.0-acre patch of sand parkland is centered on what appears to be an eroded hillslope with rock outcropping. It features Ben Lomond wallflower, Ben Lomond spineflower, Ben Lomond buckwheat, and other herbaceous plants characteristic of sand parkland, as well as scattered ponderosa pine in the overstory.
2. **Sand Chaparral:** These 18.0 acres feature primarily shrubs including silverleaf manzanita with an overstory of scattered ponderosa pine and knobcone pine (*Pinus attenuata*), with sparse cover of herbaceous plants in the canopy gaps. Most of this community is in the southeastern portion of the Pace Parcel and the southwestern portion of the Camp MayMac parcel, though analysis of aerial imagery suggests a small amount is found in the southwestern portion of the Pace Parcel as well (Figure 3).

¹ Willyard et al. 2016 suggests this tree may be an endemic species, *P. benthamiana*.

3. **Ponderosa Pine Forest:** This 9.6-acre area straddling the two parcels features ponderosa pines in the overstory, with largely chaparral shrubs including silverleaf manzanita and oaks such as Shreve oak (*Quercus parvula* var. *shrevei*) and coast live oak (*Q. agrifolia*) in the understory portion of the Pace Parcel.
4. **Small-Statured ("Pygmy") Redwood Forest:** The redwood forest on the ridge and north-facing slope in the southwestern portion of the Pace Property occurs on Zayante sand soil. While the soil in this area is more developed and less sandy overall than other sandhills habitat, it likely reflects an ecotone between sandhills and non-sandhills, and may support Mount Hermon June beetle.

Non-Sandhills Habitat

The remaining 70.8 acres of the mapping area features habitat that was classified as non-sandhills, as it occurs on loamier soils and supports dense woodlands and forests which were mapped in two main types (Figures 3 and 4):

1. **Mixed Evergreen Forests:** These forests feature primarily hardwoods including Shreve oak, coast live oak, and Pacific madrone (*Arbutus menziesii*), and conifers including primarily Douglas fir (*Pseudotsuga menziesii*), but also scattered coast redwood (*Sequoia sempervirens*) and ponderosa pine.
2. **Coast Redwood Forest:** The drainage in the southwestern portion of the Pace Parcel supports relatively dense coast redwood with Douglas fir and an understory of shade-tolerant herbs and ferns.

Special-Status Plants

During my assessment, I observed four special-status plant species: silverleaf manzanita, Ben Lomond buckwheat, Ben Lomond spineflower, and Ben Lomond wallflower.

Silverleaf Manzanita

Silverleaf manzanita is a shrub that is endemic to the Santa Cruz Sandhills and is listed as State Rank 1B.2, which is for plants that are the most rare and endangered in California and elsewhere" (CNPS 2017). As described above, silverleaf manzanita occurs in the sand chaparral, particularly the patches straddling the two parcels. The southern patches of sand chaparral were dominated by native shrubs found in the maritime chaparral on other sandy but non-Zayante soils including Santa Cruz Mountains manzanita (*Arctostaphylos crustacea* ssp. *crinita*) and glossy leaf manzanita (*A. nummularia*), though may feature scattered silverleaf manzanita as well. This shrub could also occur at low abundance in the understory of the adjacent mixed evergreen forest, particularly adjacent to areas mapped as sandhills.

Ben Lomond Buckwheat

Ben Lomond buckwheat is a perennial herb that is also endemic to the sandhills and State Rank 1B.1, reflecting that it is rare and endangered in California and elsewhere (CNPS 2017). I observed this species within the sand parkland; however, a focal species survey might reveal that it also occurs in other mapped sandhills habitat, particularly the sand chaparral, or perhaps in adjacent non-sandhills habitat.

Ben Lomond Spineflower

Ben Lomond spineflower is an annual herb that is federally listed as endangered and has a State Rank of 1B.1 (CNPS 2017). I observed this disturbance-adapted plant in the sand parkland community. As with Ben Lomond buckwheat, a focal species survey might reveal that it also occurs in other mapped sandhills habitat, particularly the sand chaparral, or perhaps in open canopy conditions adjacent non-sandhills habitat.

Ben Lomond Wallflower

Ben Lomond wallflower is an annual herb that is state and federally listed as endangered and has a State Rank of 1B.1 (CNPS 2017). I observed this plant on the rock outcropping in the center of the sand parkland community. It has only a small probability of occurring outside this mapped community type (e.g. in the sand chaparral).

Special-Status Animals

Mount Hermon June Beetle

The portions of the project area mapped as sandhills, as well as the adjacent areas mapped as non-sandhills, have the potential to support the Mount Hermon June beetle—an insect that feeds as a fossorial larva on plant roots and associated mycorrhizae, and then emerges as an adult in late spring and summer in order to mate. Mount Hermon June beetle occurs in areas with Zayante soils that feature a variety of vegetation, including sand chaparral, sand parkland, and ponderosa pine forest, as well as areas that have been landscaped and feature ornamental vegetation. Perhaps because it lives 99% of its life belowground, the Mount Hermon June beetle has been found within developed areas and other areas impacted by human uses, including mowed areas subject to recreation and denuded areas, such as vehicle turnouts along roads.

The Mount Hermon June beetle has been observed within the private residential property north of the Camp MayMac Parcel, and in the sandhills within the Quail Hollow Ecological Reserve and the nearby Quail Hollow Quarry (USFWS 2009). Portions of the sandhills habitat that feature very thin soils overlaying sandstone, particularly the eroded areas where soil has been washed away exposing sandstone bedrock, might not support the fossorial Mount Hermon June beetle, if the soil is of insufficient depth. I note this species has been observed emerging from other areas of thin soil such (J. McGraw, pers. obs. 2016); in the absence of a survey, areas featuring at least some soil (not just sandstone at the surface), the species should be presumed to be present.

Zayante Band-Winged Grasshopper

The sand parkland habitat in the project area has limited potential to support the Zayante band-winged grasshopper—a federally endangered insect that requires open sunlit, sparsely vegetated areas in Zayante soils. The likelihood that this species occurs in the project area is limited due to the small size of the sand parkland (2.0 acres), the steep slopes within it, and the dense forest and chaparral vegetation surrounding it. The nearest population of the Zayante band-winged grasshopper is located 0.6 miles south-southeast of the project area within the Quail Hollow Ecological Reserve east of the Park (USFWS 2009). The species may also inhabit potentially suitable sand parkland habitat located 0.35 miles southwest of the project area within the park, just west of the Sunset Trail; no known surveys have been conducted in this area (USFWS 2009).

Sensitive Habitats

The project area features sensitive habitats protected by the County of Santa Cruz Sensitive Habitat Ordinance and the Santa Cruz County Riparian Corridor and Wetlands Protection Ordinance.

Sandhills Habitat

Sandhills habitat is a sensitive habitat protected under the County of Santa Cruz Sensitive Habitat Ordinance. The SHO also protects habitat that supports rare and endangered species including the Mount Hermon June beetle, which may occur on non-sandhills habitat located adjacent to sandhills habitat.

Riparian and Wetland Habitat

In addition to sandhills, portions of the project area may feature riparian and wetland habitat that is protected by the County of Santa Cruz Riparian Corridor and Wetlands Protection Ordinance. This habitat includes the streams and adjacent vegetation that is adapted to occurring in areas of high soil moisture. It was beyond the scope of this assessment to delineate the stream corridors, riparian habitat, and wetland patches, which could be done by walking the stream corridors and delimiting the area in which riparian and/or wetland species occur.

Summary and Potential Project Implications

The 103-acre project area supports sensitive species and habitat that are protected by local and federal regulations including:

- Sandhills habitat (Figure 4), which is found only on outcroppings of Zayante sand soil in central Santa Cruz County, and supports several endemic species (McGraw 2004);
- Riparian and associated wetland communities, which occur along the ephemeral streams including the one lined by coast redwood forest (Figure 3) within the Pace Parcel;
- Four special-status plants, which are the federally endangered Ben Lomond spineflower and Ben Lomond wallflower (which is also state-listed as endangered), and the rare and endangered silverleaf manzanita and Ben Lomond buckwheat; and
- Habitat suitable for the Mount Hermon June beetle and potential habitat for the Zayante band-winged grasshopper.

The Pace Access Trail traverses sandhills habitat as well as an area of small-statured (“pygmy”) redwood forest which I characterized as a transitional sandhills because of its potential to support Mount Hermon June beetle (Figure 3). The northern and western portions of this trail alignment traverse habitat supporting silverleaf manzanita and likely Mount Hermon June beetle; a focal species survey would be needed to evaluate whether Ben Lomond spineflower, Ben Lomond buckwheat, or perhaps Ben Lomond wallflower occur within the trail alignment. The eastern portion of the loop trail occurs in ponderosa pine forest that features soils that are likely suitable for Mount Hermon June beetle, which may also occur in the Mixed Evergreen Forest at the ecotone with the sandhills habitat.

Installation and use of a trail through sandhills habitat has a potential to impact sandhills species directly and indirectly through multiple mechanisms, including:

1. **Direct Mortality or Morbidity of Special-Status Plants:** Construction of the trail will directly impact silverleaf manzanita, which might be killed if shrubs are removed, or if shrubs subject to repeated pruning suffer mortality as a result. Contrary to the analysis presented in the Environmental Impact Report for the Master Plan for the Park (Parsons 1996), silverleaf manzanita is an obligate seeding species rather than a 'stump sprouter'; accordingly, it will not resprout from cut stumps. Ideally the trail corridor would be routed to avoid the need to remove or extensively prune silverleaf manzanita.

Though I did not observe the three herbaceous plants along the trail corridor during the site assessment, which was conducted in winter, a focal species survey conducted in the spring is recommended to ensure that the trail alignment avoids patches of them.

2. **Mortality or habitat loss for Mount Hermon June beetle:** Mount Hermon June beetle has some potential to be killed directly during trail construction, which can impact larva, pupae, and adults below the soil surface. Previously the species was thought to occur at a depth of at least six inches; however, I observed larvae in 2017 just below the litter layer at the soil surface (J. McGraw, pers. obs). Mount Hermon June beetle could also be impacted by loss of vegetation and/or soil compaction from trail construction and use, which would limit their ability to inhabit soil underlying the trail corridor.
3. **Indirect Effects:** The trail has the potential to impact the listed species indirectly by resulting in trampling of habitat in the nearby sand parkland, which is otherwise isolated and largely inaccessible. Steps should be taken to prevent trail users from accessing this sensitive habitat, which features populations of the three endemic herbs, likely supports the Mount Hermon June beetle, and may support Zayante band-winged grasshopper. Finally, the trail has the potential to degrade sandhills habitat by promoting the invasion and spread of exotic plants not currently found within (or found at only low abundance within) the sandhills, but can be introduced or promoted by soil disturbance as well as through the introduction of seed on clothes, fur, and in feces (e.g. horse feces).

Installation of the trail can also benefit special-status species, particularly if the project is implemented following the species protection measures (Appendix A) which could result in the following benefits:

1. **Facilitate Access for Management:** The trail can indirectly enhance habitat for the special-status species by facilitating access for habitat and species management, including removal of French broom and caging Ben Lomond wallflower to prevent deer herbivory.
2. **Create Small-Scale Soil Disturbance:** Ben Lomond spineflower can be established along the trail corridor, particularly if its dispersal is mediated through seeding after trail construction. While the center of the trail that is directly trampled is unlikely to support plants if the trail is used with moderate to high frequency, the adjacent area that is less frequently disturbed can potentially support disturbance-adapted species like Ben Lomond spineflower.

Regulatory Compliance

Appendix A includes species protection measures modified from those that you developed for the project, which I recommend be followed to avoid and minimize negative effects on the special-status species.

The County of Santa Cruz Riparian and Wetland Protection ordinance protects riparian and wetland habitats by regulating development and other permitted land uses in or in proximity to these habitats, including by

requiring setbacks from streams and wetlands. The County of Santa Cruz Sensitive Habitat Ordinance protects sandhills habitat as well as habitat that supports rare sandhills species, including habitat adjacent to sandhills communities that supports Mount Hermon June beetle. The Sensitive Habitat Ordinance requires that disturbance of sensitive habitat and rare species be avoided; where it cannot be avoided, it must be minimized and mitigated.

The federal Endangered Species Act protects federally-endangered species, including the Mount Hermon June beetle, Zayante band-winged grasshopper, Ben Lomond spineflower, and Ben Lomond wallflower. The federal Endangered Species Act makes it illegal to 'take' (kill, harm, harass, etc.) endangered animals including the Mount Hermon June beetle and Zayante band-winged grasshopper. However, the U.S. Fish and Wildlife Service (USFWS), which administers the Act, can permit take of the endangered insect that might occur incidentally during otherwise lawful projects, such as development, agriculture, and recreation infrastructure projects, by issuing what is known as a take permit.

Federal take permits can be issued for scientific research and projects that promote recovery of listed species under Section 10(a)(1)(A) of the ESA. If the trail is installed as part of a larger project that includes measures to promote populations of the listed species, including removal of French broom, caging Ben Lomond wallflower to prevent deer herbivory, and habitat enhancement for Ben Lomond wallflower, the US Fish and Wildlife Service could elect to cover take associated with the project under a recovery permit based on the finding that it will promote recovery of the species. I hold a recovery permit for the endangered sandhills species (TE118641-2), which enables me to apply to take coverage for such recovery projects by submitting work plans to the USFWS for review and approval. The County could also elect to apply for its own recover permit.

Alternatively, the trail project could apply to receive a federal take permit under Section 10(a)(1)(B) of the ESA through preparation of a Habitat Conservation Plan (HCP), which outlines how they will mitigate the project's negative effects on the endangered species. Mitigation must include steps to avoid, minimize, and repair impacts at the project site, as well as efforts to compensate for them by benefiting similar habitat elsewhere.

The mitigation provided in the HCP or recovery permit would plan could also likely satisfy the requirements of the County's Sensitive Habitat Ordinance.

Limitations

The vegetation classification and sensitive habitat mapping presented in this report were conducted based on a reconnaissance-level site assessment. They are designed to provide an overview of the project area's conditions and inform general evaluation of its potential future use. In addition, the maps depicting soils, streams, and the parcel boundaries are from existing regional databases and may not accurately portray these conditions at the site level. Neither the site assessment nor the mapping were designed to enable decision making regarding specific use projects, which instead would require more detailed analysis of conditions in the portions of the property proposed for development or use.

Additionally, this initial assessment evaluated vegetation and habitat conditions only; while observations of rare species were noted, this assessment did not involve focal species surveys. Such seasonally-timed surveys for plants and insects may be needed as part of project permitting, to evaluate potential use and site-specific development or use projects. Endangered insect surveys may be needed to evaluate whether the site does indeed support Mount Hermon June beetle and/or Zayante band-winged grasshopper. These surveys must be conducted during the peak of the adult flight seasons for the insects, which for the Mount Hermon June beetle is between May and June and for the Zayante band-winged grasshopper, occurs between July and August.

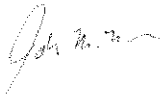
I recommend you discuss the implications of the assessment for the trail development project as well as other proposed activities in the project area, with the USFWS, which administers the Endangered Species Act, and the County of Santa Cruz Planning Department, which administers the Sensitive Habitat Ordinance and Riparian Corridor and Wetland Protection Ordinance. The following contact information for agency personnel knowledgeable about the local and federal regulations is provided to assist you.

Contact information for agency representatives knowledgeable about regulations influencing development of Sandhills habitat

U.S. Fish and Wildlife Service	County of Santa Cruz
Chad Mitcham Biologist US Fish and Wildlife Service 2493 Portola Road, Suite B Ventura, CA 93003 831-768-7794 Chad_Mitcham@fws.gov	Todd Sexauer Environmental Coordinator County of Santa Cruz 701 Ocean Street Santa Cruz, CA 95060 (831) 454-3511 Todd.Sexauer@santacruzcounty.us

I hope you will not hesitate to contact me if you have any questions about this assessment or if I can assist you further.

Sincerely,



Jodi M. McGraw

Appendix A: Species Protection Measures

1. Require all workers involved in trail construction to attend a training led by a qualified biologist on how to identify each of the six special-status species listed above prior to being involved in construction activities.
2. Conduct pre-construction surveys for Ben Lomond buckwheat, Ben Lomond spineflower and Ben Lomond wallflower along the flagged trail alignment by a qualified biologist, in the spring or in the optimal survey time, prior to trail construction. Re-route any trail segments that would impact the herbaceous plants.
3. Avoid impacts to silverleaf manzanita to the extent feasible. Where complete avoidance is not feasible, conduct only minimal pruning that affects no more than half of the branching volume of any individual.
4. Install educational signage along the trail at key locations to provide information about local sensitive plant and animal species, with the goal of educating visitors. The signs should emphasize the importance of protecting these species and stewardship of these habitats.
5. Minimize potential impacts to Mount Hermon June beetle through the following measures in sandhills habitat:
 - Limit removal of material on the trail surface to limbs, herbaceous plant cover, and litter on the soil surface make a clear and walkable pathway.
 - Avoid or minimize soil disturbance by avoiding steep cross slopes that require cutting for trail construction. If any trail with cross slopes greater than 30 percent that requires minor grading should be conducted with hand tools and supervised by a USFWS-approved biologist who can relocate any life stages of MHJB encountered.
 - Avoid trail construction between May 15 and August 15, which is the Mount Hermon June Beetle flight season when adults could fly into disturbed areas where they could be impacted by digging activities.
 - Limit the trail width to an average width of 18 inches to minimize trail impacts. Limit trail construction activities to the trail footprint and avoid additional soil disturbance or compaction to the adjacent area, such as standing and walking during trail construction, and staging materials and tools.

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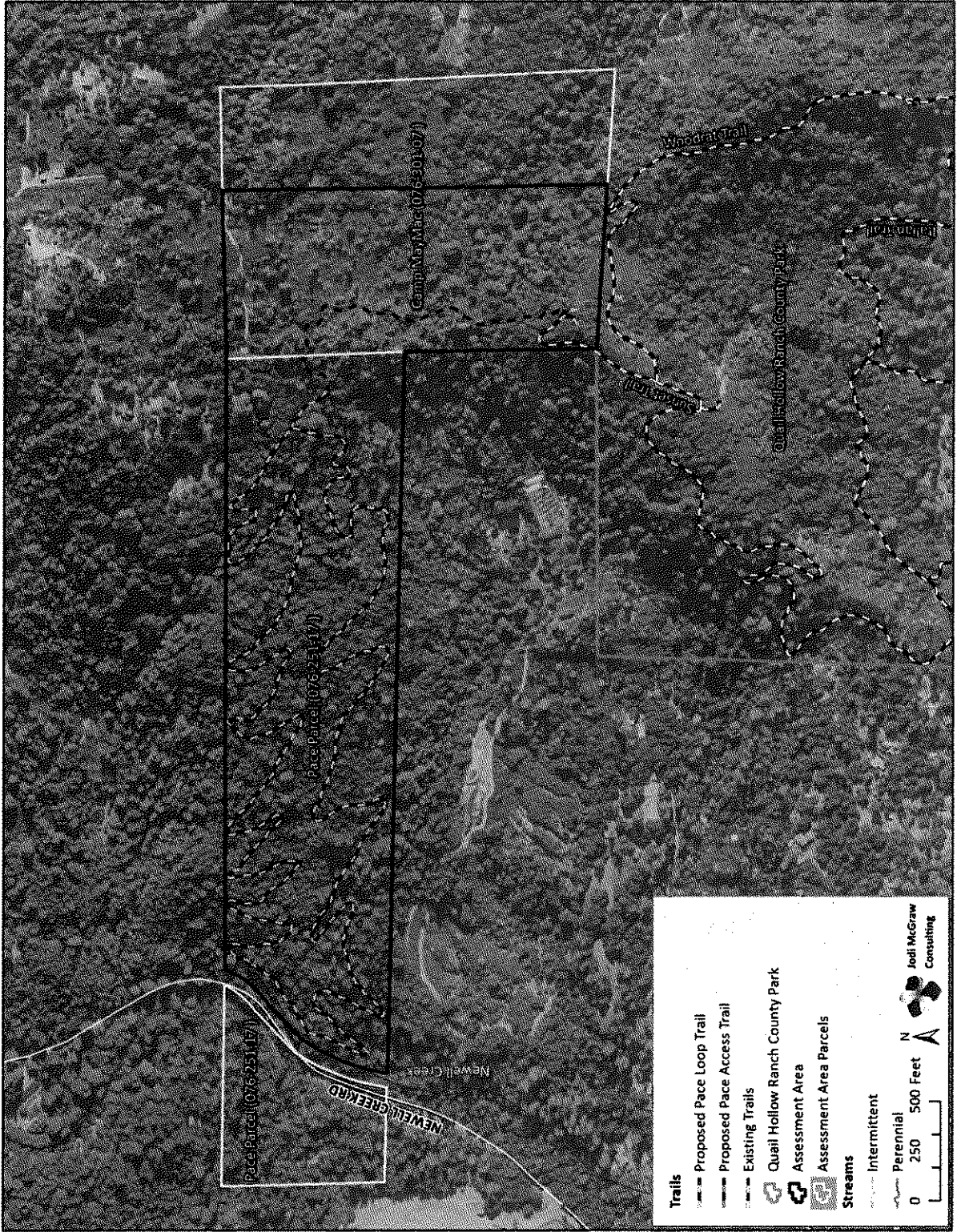


Figure 1: Aerial Image

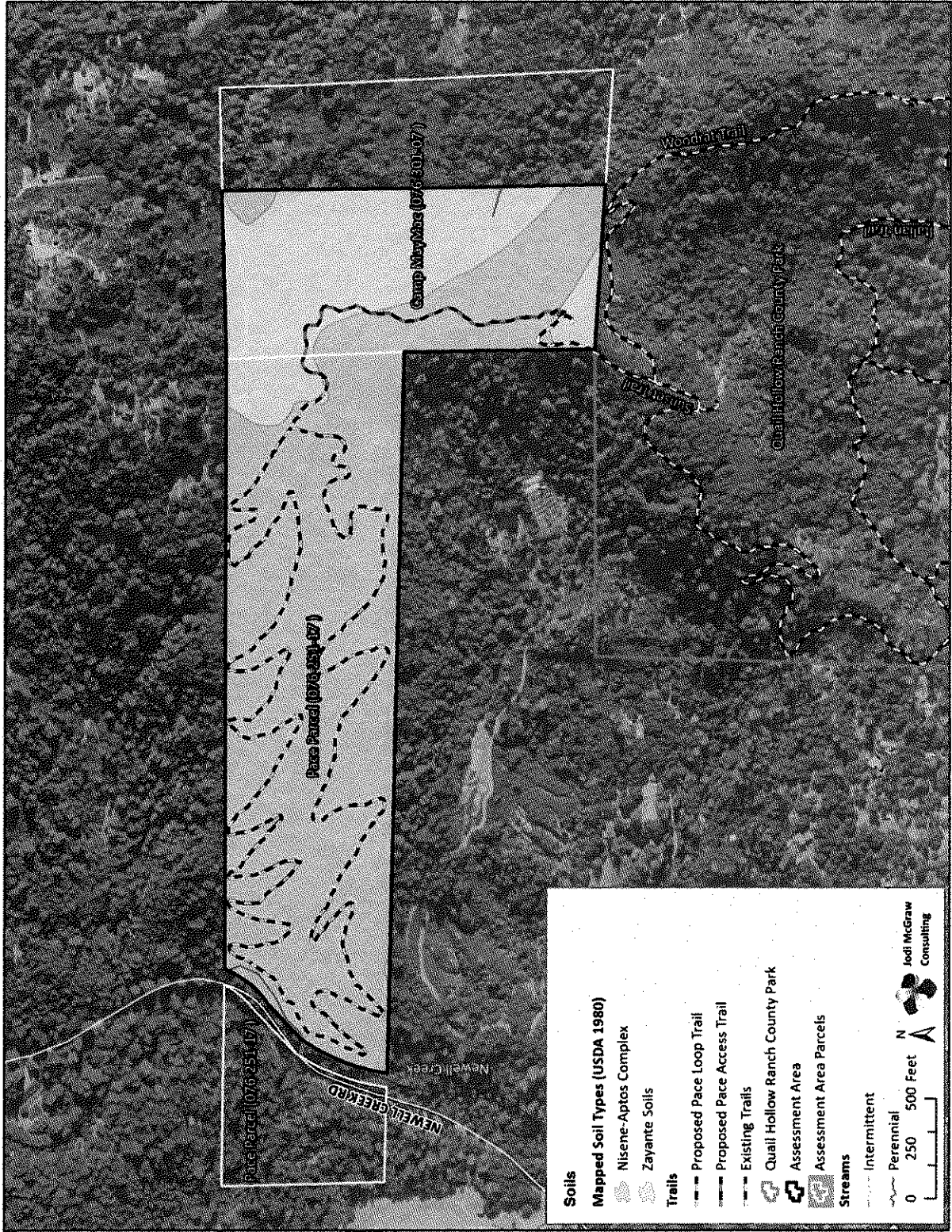


Figure 2: Mapped soils (USDA 1980)

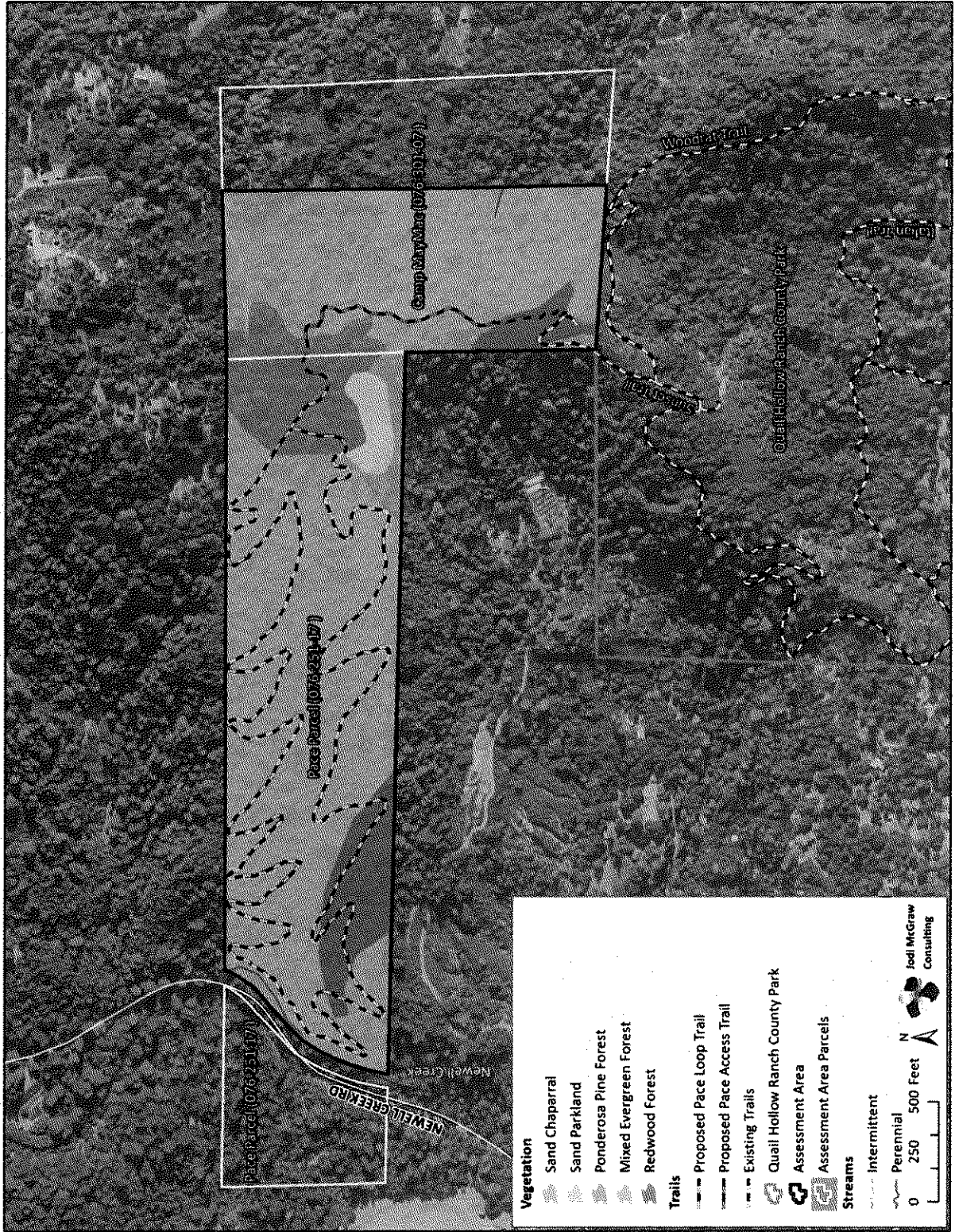


Figure 3: Vegetation

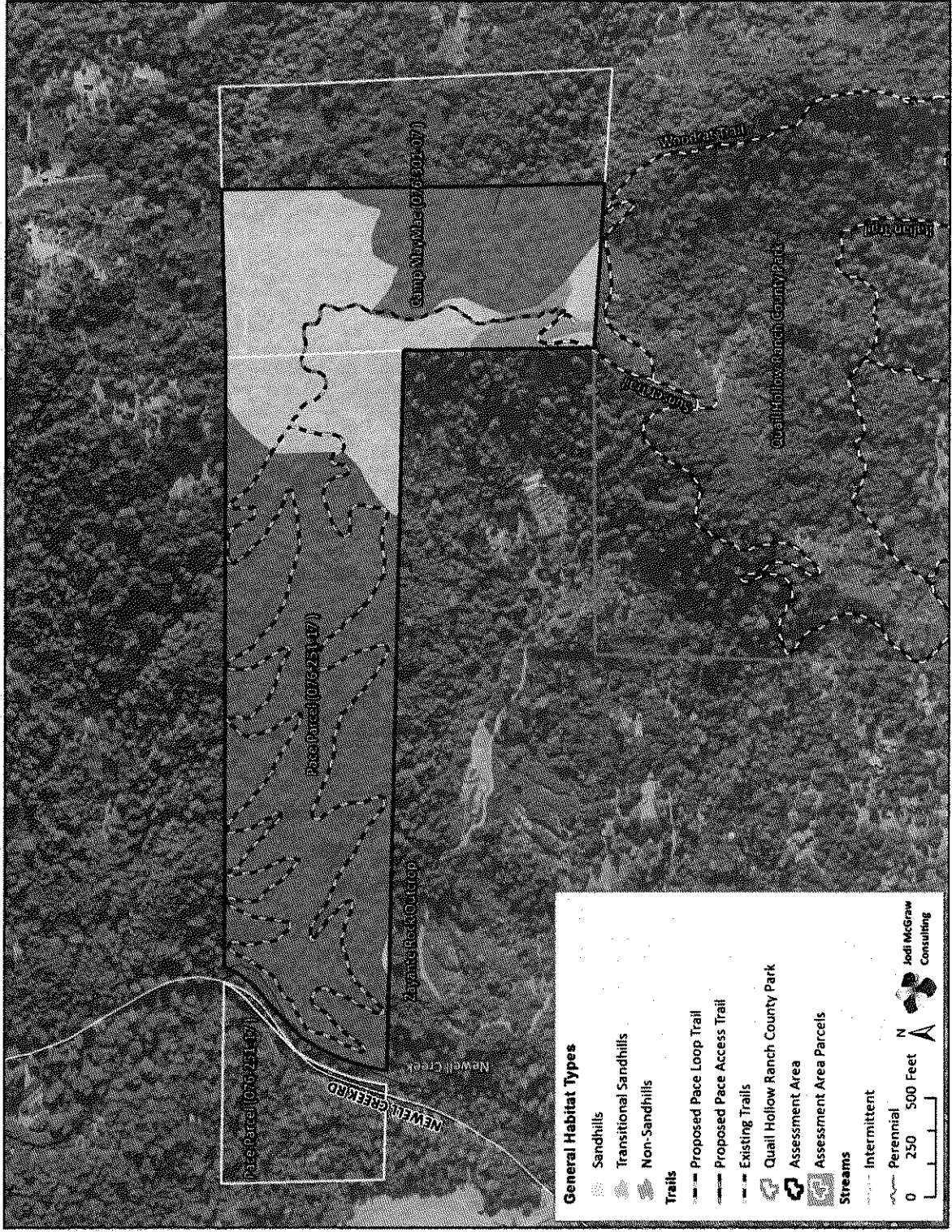


Figure 4: General Habitat Types