



Midpeninsula Regional
Open Space District

R-12-37
Meeting 12-18
June 13, 2012

AGENDA ITEM 5

AGENDA ITEM

Consider Adoption of a Mitigated Negative Declaration and Mitigation Monitoring Program for the Proposed Mindego Gateway Project, in Accordance with the California Environmental Quality Act, and Approval of an Amendment to the Use and Management Plan for Russian Ridge Open Space Preserve (Preserve)

GENERAL MANAGER'S RECOMMENDATIONS

Just for SEA

1. Adopt the Mitigated Negative Declaration and Mitigation Monitoring Program for the Proposed Mindego Gateway Project, in accordance with the California Environmental Quality Act (CEQA), as set out in the Resolution attached to this report.
2. Approve an Amendment to the Use and Management Plan for Russian Ridge Open Space Preserve to construct a commemorative site, a 20-stall paved parking lot, a multi-use trail connecting the staging area to the Ancient Oaks Trail, a hiking and equestrian trail to the peak of Mindego Hill, and close a section of the existing Mindego Ridge Trail to bicycles.
3. Authorize the General Manager to approve amendments to the Williamson Act Contracts pertaining to the Project parcels, as well as future Williamson Act contract amendments, as possible and needed, to allow open space uses and supporting facilities that are compatible with agricultural operations.

SUMMARY

The proposed Mindego Gateway Project (Project), a partnership between Midpeninsula Regional Open Space District (District) and Peninsula Open Space Trust (POST), would provide public access to the Mindego Hill area of Russian Ridge Open Space Preserve. The proposed Project would consist of a "Commemorative Site" honoring the work of former POST President Audrey Rust; a new 20-stall parking lot with vault restroom, trailhead connections, and signage; a new 1.2 mile multi-use trail from the staging area north to the Ancient Oaks Trail; a new hiking and equestrian trail to the summit of Mindego Hill; and closure of a segment of the existing Mindego Ridge Trail to bicycles. In addition, the project includes amendments of two existing Land Conservation (Williamson Act) contracts to permit open space and recreational uses and facilities of the project parcels. Staff has concluded, based on the environmental review, that the proposed project would have no significant effect on the environment as mitigated.

DISCUSSION

As part of the Silva property purchase agreement between the District and POST, the Board adopted a Preliminary Use and Management Plan, which included provisions for the District to study the feasibility of POST-sponsored public access facilities at this location. These facilities, collectively referred to as the Mindego Gateway Project, include a recognition site landscape feature, or commemorative site, honoring former POST President Audrey Rust; a public staging area/parking lot; and two connector trails. During project design and after consultation with the Project biologist, the closure of a segment of the Mindego Ridge Trail to bicycles was included as part of the Project to protect the San Francisco garter snake (a fully-protected endangered species) (please refer to Attachment A, Project Map). To protect sensitive aquatic habitat and to ensure that impacts to garter snakes are avoided to the maximum extent possible, off-trail use would be prohibited in the Mindego area. During summer 2011, the District Board of Directors approved the proposed Mindego Gateway Project as a new Key Project, created a series of design guidelines for the Audrey Rust Commemorative Site (to be designed and constructed by POST), and authorized contracts with a team of consultants, including landscape architects, CEQA specialists, and biologists, to plan and design the staging area and trail connections (see Reports R-11-82, 86, and 87).

In January 2012, the Board tentatively approved the Use and Management Committee's recommended amendment to the Russian Ridge Use and Management Plan to include the Mindego Gateway Project (see Report R-12-13). The Board received six written communications prior to the meeting requesting that the proposed trails and the western segment of the Mindego Ridge Trail be open to bicycles. The Committee determined that the bicycle restriction was necessary to avoid potential impacts to the San Francisco garter snake, which have been observed to bask on trails in the vicinity. No public comment was received at the meeting. In addition to this recommendation, visitors to Mindego Ranch would be required to stay on designated trails to further ensure that impacts to garter snakes and their core habitat are avoided. This use restriction would apply to the western segment of Mindego Ridge Trail, Mindego Hill Trail, and any future trails construction on Mindego Ranch.

In February 2012, an Initial Study/Mitigated Negative Declaration for the Project was released for public and Responsible Agency review. During this time, San Mateo County planning staff alerted the District of a potential conflict between the Williamson Act contracts that apply to the affected Mindego Ranch properties, and the proposed new trails and staging area that are part of the Mindego Gateway Project. In response, Staff has been working with County planners to amend the contracts, seek input from the Farm Bureau and Agricultural Advisory Committee, and obtain approval from the County Board of Supervisors, to allow the project to proceed. CEQA requires an analysis of the potential environmental impacts associated with amending the Williamson Act contracts. As such, the contract amendments were added to the Mindego Gateway Project description and analysis is provided in the Agricultural and Forestry Resources section (see CEQA Compliance section and Attachment C, Response to IS/MND Comments). The analysis concluded that the contract amendments would result in no impacts to the agricultural operations on the project parcels: agricultural use of the parcels was adopted by the Board as part of the Use and Management Plans for Skyline Ridge and Russian Ridge Open Space Preserves, and guidelines and mitigation measures adopted as part of the Coastal Annexation Environmental Impact Report ensure that recreational use and supporting facilities are compatible with agriculture. A Resolution authorizing the General Manager to amend these contracts, and other similar contracts, to update the list of allowed "compatible uses" to include

open space and recreational uses and facilities that are compatible with agriculture, is provided as Attachment F.

USE AND MANAGEMENT PLAN AMENDMENT

Public Access: Construct a 20-car parking lot; a single, unisex vault toilet restroom; signboards; and Sudden Oak Death tire and boot cleaning station. Construct 1.2 miles of multiple-use trail; construct a 0.75-mile trail to Mindego Hill with access limited to hiking and equestrian use; install a new gate or stile and signage along Mindego Ridge Trail at the junction with Mindego Creek Trail (approximately 0.5 miles from Alpine Road), and limit trail use west of the new gate to equestrians and hikers, with no off-trail use permitted, to protect sensitive species habitat.

Patrol: Routinely patrol the parking lot and new trails in the Preserve. Enforce “No Parking after Preserve Hours” at the new parking lot, and use restrictions (hikers and equestrian use only, no off-trail use) on Mindego Ranch.

Signs: Install a regulatory sign at the parking lot trailhead; trail directional signs as needed; standard Preserve signboards; a Preserve entrance sign; and educational and interpretative signage. Signage proposed for the Commemorative Site includes POST information and dedication language honoring Audrey Rust. Signage locations and content will be brought to the District Legislative, Funding and Public Affairs Committee for final review and approval in late spring.

Barriers: Install a new Preserve gate at the parking lot entrance; a gate barrier leading to the special event overflow parking area; stiles consistent with trail uses; double split-rail fencing at either side of the main entrance gate; and single, split-rail fencing along the southern perimeter of the parking lot.

CEQA COMPLIANCE

An Initial Study and Mitigated Negative Declaration (IS/MND) were prepared for the Project (Attachment B). The public comment period began on February 17, 2012, and ended on March 19, 2012.

Determination

Mitigation measures incorporated into the proposed project reduce potential negative effects to air quality, biological resources, and cultural resources, to less-than-significant levels. The proposed project will therefore not have a significant effect on the environment.

Comments Received

As of March 19, 2012, the District received two written comment letters. Please see the attached Response to IS/MND Comments (Attachment C). This completes the comment period for the project.

Mitigation Monitoring Program

In accordance with CEQA, the District has prepared a Mitigation Monitoring Program, which describes project-specific mitigation measures and monitoring process (Attachment D). The Mitigation Monitoring Program ensures that all adopted measures intended to mitigate potentially significant environmental impacts will be implemented. The proposed project incorporates all of these mitigation measures.

CEQA Findings

The Board Findings required by CEQA to adopt the MND and the Mitigation Monitoring Program are set out in the attached Resolution (see Attachment E). Changes incorporated into the MND in light of comments received during the public review period primarily provide clarification of the project and its potential impacts. In addition, minor changes were made to mitigation measures to more fully prevent impacts to sensitive species, such as the addition of a standard bicycle barrier at the Mindego Ridge trailhead. Finally, the amendment of existing Williamson Act contracts to permit open space and recreational use on the project parcels were added to the project. Staff concludes that, with these modifications, the conclusions set out in the Mitigated Negative Declaration regarding potential adverse impacts arising from the project remain valid. No modification exceeds any threshold of significance established in the Mitigated Negative Declaration. Therefore, staff recommends that the Board find that the environmental review for the Mindego Gateway Project is adequate, the addition of new information in the MND clarifies, amplifies, and makes insignificant modifications to the MND that do not require recirculation of the MND pursuant to Section 15073.5(c)(4) of the CEQA Guidelines, the changes to the mitigation measures in response to the comments received are desirable, and the revised mitigation measures are equivalent to or more effective in mitigating environmental impacts than the original measures and accordingly, the revised mitigation measures do not require recirculation pursuant to Sections 15073.5 and 15074.1 of the CEQA Guidelines.

PUBLIC NOTICE

A Notice of Intent to Adopt a Mitigated Negative Declaration was submitted to the State Clearinghouse of the Governor's Office of Planning and Research on February 17, 2012, stating that the public review period would start on February 17, 2012, and end on March 19, 2012. On February 17, 2012, the Notice of Intent was also submitted to the San Mateo County Clerk for posting and mailed to coastal agencies, interested parties, and property owners of land located adjacent to or within 300 feet of Russian Ridge Open Space Preserve. The Notice of Intent, Mitigated Negative Declaration, and Initial Study were made available for public review at the District's Administrative Office and on the District's website. Notices were also posted at main trailhead entrances to the Preserve.

Property owners of land located adjacent to or within 300 feet of Russian Ridge Open Space Preserve, interested parties, and coastal agencies have been mailed written notices of this proposed Use and Management Plan Amendment. All legal notice requirements of CEQA have been met, in addition to public noticing requirements of the Brown Act.

FISCAL IMPACT

The Mindego Gateway Project, with the exception of the Mindego Hill Trail, is being funded by POST. The FY2012-13 budget contains \$20,000 of District funds for construction of the Mindego Hill Trail. Implementation of all other project elements, including the Commemorative Site and staging area, the Ancient Oaks Connector Trail, and all associated amenities, will be funded by POST.

BOARD COMMITTEE RECOMMENDATION

Prior Use and Management Committee Actions

Conceptual designs for the staging area and two connector trails were reviewed and approved by the Board Use and Management Committee at a public onsite meeting in October 2011. Three members of the public were in attendance. At a subsequent public meeting in November, the

Use and Management Committee reviewed and approved trail use recommendations for the proposed “Mindego Hill Trail” and “Ancient Oaks Connector Trail”. Six members of the public were present, four of whom voiced concerns about the proposed restriction on bicycle access on the new Mindego Hill Trail and an existing segment of the multi-use Mindego Ridge Trail.

Prior Legislative, Finance, and Public Affairs Committee Actions

In August 2011, the Legislative, Finance, and Public Affairs Committee reviewed preliminary trail naming and signage concepts for the proposed Project. In February 2012, the types and locations of commemorative site and staging area signage, as well as the naming of the Audrey C. Rust Trail, were approved. It is anticipated that specific design and content for the commemorative site and staging area signage and additional trail naming for the remainder of proposed Project will be presented to the Committee in early summer 2012.

NEXT STEPS

If the Board approves the General Manager’s recommendations, staff will file a Notice of Determination with the San Mateo County Clerk and proceed with the County permitting process. Pending permit approvals, implementation may occur as early as fall 2012 for the staging area, spring 2013 for the Mindego Hill Trail and summer 2013 for the Ancient Oaks Connector Trail. It is anticipated that the Commemorative Site would be installed by POST in summer 2012.

Attachments:

- A. Project Map
- B. Initial Study/Mitigated Negative Declaration (IS/MND)
- C. Response to IS/MND Comments
- D. Mitigation Monitoring and Reporting Program
- E. Resolution: CEQA Findings
- F. Resolution: Williamson Act Contract Amendments

Responsible Department Manager:

Ana M. Ruiz, AICP, Planning Manager

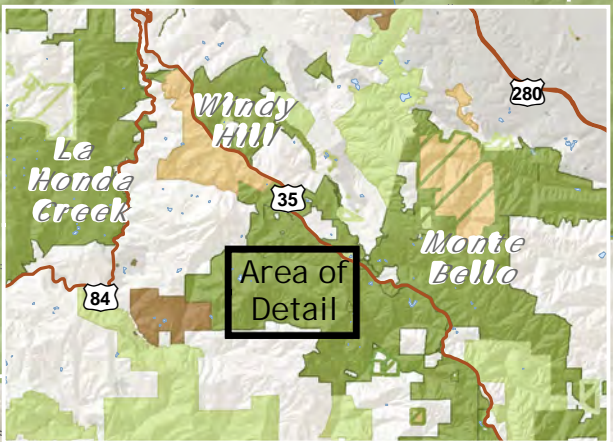
Prepared by:

Lisa Bankosh, Planner III

Contact person:

Same as above

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Attachment A: Mindego Gateway Project Area

- Proposed Staging Area Location
- Proposed Commemorative Site Location
- Proposed New Trail
- Coastal Protection Area
- P Roadside Parking
- Gate

Midpeninsula Regional
Open Space District
June, 2012



ATTACHMENT B

MINDEGO GATEWAY PROJECT
INITIAL STUDY/MITIGATED
NEGATIVE DECLARATION

LSA

February 2012

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR THE MINDEGO GATEWAY PROJECT

NOTICE IS HEREBY GIVEN that the Midpeninsula Regional Open Space District (District) has completed an Initial Study/Mitigated Negative Declaration for the proposed Mindego Gateway Project in accordance with the California Environmental Quality Act.

Project Location: The project site is located in unincorporated San Mateo County, approximately 4 miles southeast of the Town of La Honda and approximately 7 miles southwest of the City of Los Altos. The project site is located on three non-contiguous areas in the southeastern portion of the Russian Ridge Open Space Preserve. The site is generally located west of Alpine Road, about 1.4 miles southwest of its intersection with Skyline Boulevard (State Route [SR] 35). Skyline Ridge Open Space Preserve is immediately south of the site.

Proposed Project: The proposed project includes the development of an approximately 1.75-acre staging area and commemorative site, two new trails totaling approximately 2.2 miles in length, and associated improvements. The project would also close a 1-mile stretch of the existing multi-use Mindego Ridge Trail to bicycle use to protect the federally-endangered San Francisco garter snake. The staging area would include parking for 20 vehicles, an unpaved special event parking area, trailhead, and restroom. The commemorative site would consist of an ADA-compliant pathway, an accessible deck/platform, and a second painting/viewing platform, both providing views of Mindego Hill and the Pacific Ocean. The new “Ancient Oaks Connector Trail” would be constructed to link the staging area to an existing trail network to the north, and the new “Mindego Hill Trail” would connect the existing Mindego Ridge Trail to the summit of Mindego Hill.

Findings: The Initial Study prepared by the District was undertaken for the purpose of deciding whether the project may have a significant effect on the environment. On the basis of the Initial Study, District staff has concluded that the project will not have a significant effect on the environment and, therefore, has prepared a Mitigated Negative Declaration. Furthermore, the project site is not on a list of hazardous waste sites compiled pursuant to Government Code Section 65962.5.

Public Review: Copies of the Initial Study/Mitigated Negative Declaration are on file and available for review at the Midpeninsula Regional Open Space District, 330 Distel Circle, Los Altos, California. Written comments will be accepted between **February 17, 2012 and March 19, 2012**. Comments from all Responsible Agencies are requested. Any person wishing to comment on the Draft Initial Study/Mitigated Negative Declaration must submit comments in writing to the following address:

Lisa Bankosh, Open Space Planner III
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022-1404

**MINDEGO GATEWAY PROJECT
INITIAL STUDY/MITIGATED
NEGATIVE DECLARATION**

Submitted to:

Midpeninsula Open Space District
330 Distel Circle
Los Altos, CA 94022-1404

Prepared by:

LSA Associates, Inc.
2215 Fifth Street
Berkeley, CA 94710
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LSA

February 2012

TABLE OF CONTENTS

CHECKLIST	12
I. AESTHETICS	12
II. AGRICULTURAL AND FORESTRY RESOURCES	15
III. AIR QUALITY	18
IV. BIOLOGICAL RESOURCES	24
V. CULTURAL RESOURCES	40
VI. GEOLOGY AND SOILS	44
VII. GREENHOUSE GAS EMISSIONS	49
VIII. HAZARDS AND HAZARDOUS MATERIALS	53
IX. HYDROLOGY AND WATER QUALITY	57
X. LAND USE AND PLANNING	62
XI. MINERAL RESOURCES	65
XII. NOISE	66
XIII. POPULATION AND HOUSING	70
XIV. PUBLIC SERVICES	71
XV. RECREATION	72
XVI. TRANSPORTATION/TRAFFIC	73
XVII. UTILITIES AND SERVICE SYSTEMS	79
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE	81
REPORT PREPARATION	83
A. REPORT PREPARERS	83
B. REFERENCES	83

APPENDICES

- Appendix A: Air Quality and Greenhouse Gas Emissions Data
- Appendix B: Biotic Assessment
- Appendix C: Sight Distance Analysis

FIGURES

Figure 1:	Project Vicinity and Regional Location Maps	3
Figure 2:	Aerial View of the Project Area	4
Figure 3:	Staging Area Conceptual Site Plan.....	6
Figure 4:	Commemorative Site Conceptual Site Plan.....	8
Figure 5:	Conceptual Staging Area Vehicle Maneuvering Plan	78

TABLES

Table 1:	Project Construction Emissions in Pounds/Day	21
Table 2:	Project Regional Emissions	22
Table 3:	Special-Status Species with a Potential to Inhabit the Area	28
Table 4:	Project Related Greenhouse Gas Emissions	51
Table 5:	Exterior Noise Standards	67
Table 6:	Existing Peak-Hour Traffic Volume.....	75

MINDEGO GATEWAY PROJECT INITIAL STUDY/DRAFT MITIGATED NEGATIVE DECLARATION

1. Project Title:

Mindego Gateway Project

2. Lead Agency Name and Address:

Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022-1404

3. Contact Person and Phone Number:

Lisa Bankosh, Open Space Planner III
Phone: 650-691-1200

4. Project Location:

The proposed project is located on three non-contiguous areas (collectively referred to as the “project site” or individually as “project sites”) that encompass a total of approximately 4 acres in the south-eastern portion of Russian Ridge Open Space Preserve (Preserve), which is managed by Midpeninsula Regional Open Space District (District). The Preserve is located in unincorporated San Mateo County (County), approximately 4 miles southeast of the Town of La Honda and approximately 7 miles southwest of the City of Los Altos. The site is generally located west of Alpine Road, about 1.4 miles southwest of its intersection with Skyline Boulevard (State Route [SR] 35). Skyline Ridge Open Space Preserve is immediately south of the site. Figure 1 depicts the project site’s local and regional context.

5. Project Sponsor’s Name and Address:

Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022-1404

6. San Mateo County General Plan Designation:

General Open Space (OS)

7. San Mateo County Zoning:

Resource Management District (RM)

8. Description of Project:

The District proposes to develop an approximately 1.75-acre staging area and commemorative site, two new trails (the “Mindego Hill Trail” and the “Ancient Oaks Connector Trail”) totaling

approximately 2.2 miles in length, and associated improvements within the existing Preserve, as well as change the trail use designation for a 1-mile stretch of the existing Mindego Ridge Trail.¹ An aerial view of the proposed project site is depicted in Figure 2. The project background and purpose, existing conditions within the project site, and the proposed project itself are described in further detail below.

a. Project Background. The District owns and manages over 60,000 acres of land in 26 open space preserves on the San Francisco Peninsula. The District's purpose is to acquire, permanently protect, and restore lands forming a regional open space greenbelt. The preserves are generally kept in a natural condition in order to protect their ecological integrity and habitat, and are developed with only those amenities needed for low-intensity recreation. The preserves are open to the public year round and contain many diverse ecosystems, including redwood, oak, and fir forests, chaparral-covered hillsides, riparian corridors, grasslands, and shore frontage along San Francisco Bay.

The 3,137-acre Russian Ridge Open Space Preserve consists of diverse plant communities and wildlife habitat and contains approximately 10 miles of multi-use (hiking, mountain biking, and equestrian use) trails. Trails within the immediate vicinity of the project site include the Ancient Oaks Trail, Mindego Ridge Trail, and the regional Bay Area Ridge Trail. The Bay Area Ridge Trail currently consists of over 330 miles of trail, and is planned to encircle the ridges of the San Francisco Bay. Dogs are not permitted in the Preserve.

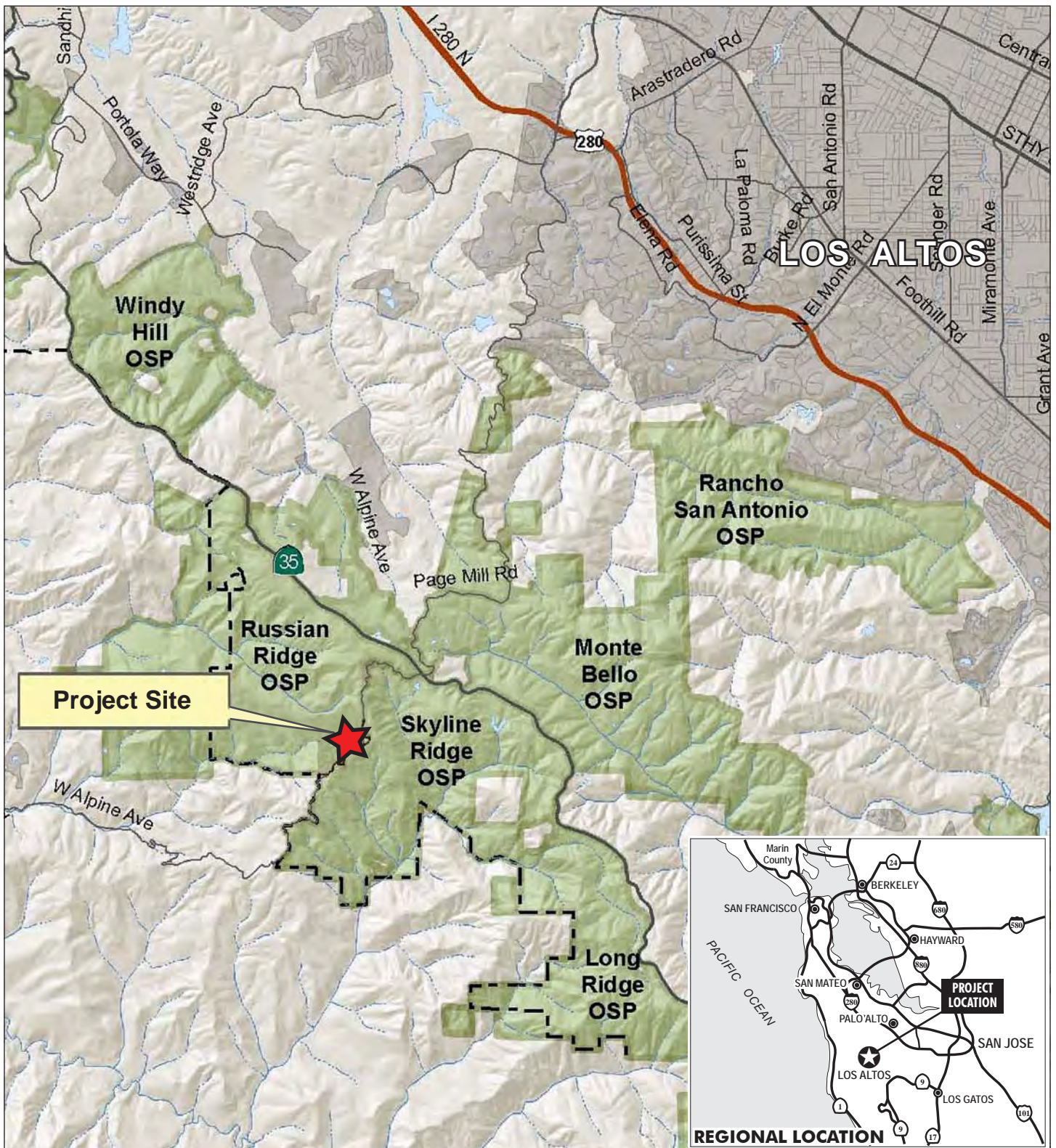
In 2003, the District expanded its jurisdiction to include the majority of the San Mateo County coastside, approximately 140,000 acres, in order to acquire and manage land and easements for the preservation of open space and agriculture, and the protection of sensitive resources. The Service Plan for the Coastside Protection Area was adopted as part of the Coastal Annexation Area Environmental Impact Report (EIR).^{2,3} The Service Plan includes guidelines and implementation actions for the Coastside Protection Area, which includes the proposed Mindego Hill trail component of the proposed project (all other project components are located outside of the annexation area). Per Section 1510 of the *California Environmental Quality Act (CEQA) Guidelines*, the relevant portions of the Service Plan and Coastal Annexation Area EIR are incorporated into this Initial Study as summarized in the checklist below.

The proposed staging area and commemorative site are located on a portion of the former Silva property, which was acquired by the District in 2011 and added to the Preserve. The "Mindego Ranch" portion of the Preserve, some of which is located within the western portion of the project site, was acquired in 2008 and has been the site of cattle ranching since 1859. Cattle were removed from the property soon after it was acquired by the District, but may be reintroduced in the future pending invasive weed control activities and additional grazing infrastructure for the property. These actions and the potential for reintroducing grazing will be evaluated under a separate CEQA document, as necessary.

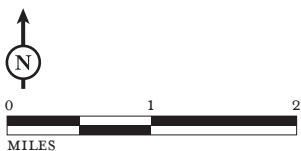
¹ The District Board considered and preliminarily approved this potential trail closure pending completion of environmental review. Midpeninsula Regional Open Space District, 2012. Agenda Item 4, Meeting 12-05. January.

² Midpeninsula Regional Open Space District, 2002. *San Mateo Coastal Annexation Draft Environmental Impact Report*. June.

³ Midpeninsula Regional Open Space District, 2003. *San Mateo Coastal Annexation Final Environmental Impact Report*. May.



LSA



-  Project Site
-  Midpeninsula Open Space District Lands
-  Coastal Protection Area

FIGURE 1

SOURCE: MIDPENINSULA OPEN SPACE DISTRICT, JUNE 2011.

Mindego Gateway Project IS/MND
Project Vicinity and Regional Location Maps

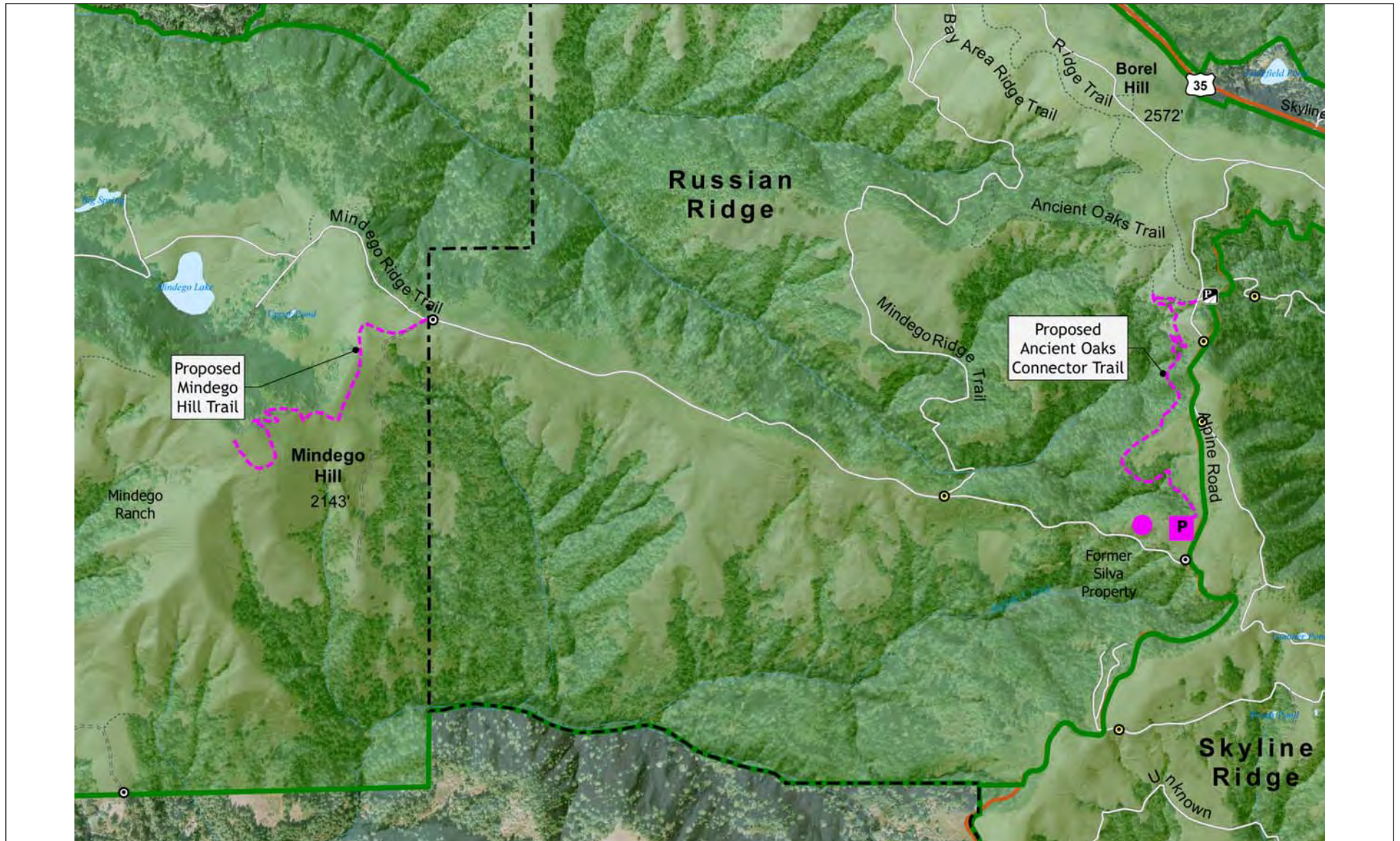
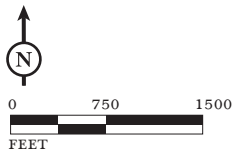


FIGURE 2

L S A



- Proposed Staging Area Location
- Proposed Commemorative Site Location
- Proposed New Trail Alignment
- MROSD Preserves
- Gate
- Roadside Parking
- Coastal Protection Area

Mindego Gateway Project IS/MND
Aerial View of the Project Area

SOURCE: MIDPENINSULA REGIONAL OPEN SPACE DISTRICT, FEBRUARY 2012.

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The new staging area and trails are intended to enhance public access to the existing Russian Ridge trail network and to the summit of Mindego Hill. The Audrey Rust commemorative site (referred to hereafter as the commemorative site), a recognition landscape feature that would be open to the public, would be developed to honor the land preservation achievements of the former President of the Peninsula Open Space Trust (POST), and would also provide interpretive and educational information. As another component of the project, closure of a 1-mile section of the existing Mindego Ridge Trail to bicycles would provide further protections to the federally-endangered San Francisco garter snake, which has been observed along this section of the trail.

b. Existing Conditions. The project site is located in a rugged, hilly area with elevations ranging from approximately 1,800 to 2,400 feet relative to the National Geodetic Vertical Datum (NGVD), with the highest elevations in the western part of the site. The location of the proposed staging area and commemorative site is situated at the top of the San Gregorio Creek watershed, on a ridge between wooded creeks to the north and south that flow westward to the ocean. The landscape is characterized by a mosaic of grassland, oak woodland, and mixed evergreen forest. The proposed staging area would be located within a disturbed, graded flat supporting non-native annual grasses and weeds. Some areas of the staging area site are overlain by crushed asphalt gravel from past use as a corporation yard. An existing fence and gate currently separates the proposed staging area from Alpine Road. The proposed trail connections pass through areas of mixed evergreen forest, non-native grassland, coyote brush scrub, and would cross the headwaters of several drainages leading to Mindego Creek.

c. Proposed Project. As previously discussed, the proposed project includes the development of a staging area, commemorative site, and two new trails within the Preserve, as well as the closure of a 1-mile section of an existing trail to bicycles. The approximately 1-acre staging area, which includes parking for 20 vehicles, an unpaved special event parking area, trailhead, and restroom, would be located just west of Alpine Road and approximately 1.4 miles southwest of Skyline Boulevard. The staging area would provide access to the approximately 0.75-acre commemorative site as well as parking for trail users. The proposed commemorative site consists of an ADA-compliant pathway, an accessible view platform, and a second painting/viewing platform, both providing sweeping views of Mindego Hill and the Pacific Ocean. As part of this project and shown on Figure 2, an approximately 1.2 mile long multi-use trail, the “Ancient Oaks Connector Trail,” would be constructed to link the staging area to the existing Preserve trail network to the north. A second trail, the approximately 1-mile long “Mindego Hill Trail,” would connect the existing Mindego Ridge Trail to the summit of Mindego Hill. Lastly, the proposed project also includes closing a 1-mile section of the existing Mindego Ridge Trail nearest to Mindego Lake to bicycle use for protection of the federally-endangered San Francisco garter snake, which has been observed along this section of the trail. Each proposed project element and associated improvements are described in more detail below.

(1) Mindego Gateway Staging Area. The staging area and associated parking lot would be constructed on a previously graded flat area, formerly used as a corporation yard. The conceptual parking lot and staging area design is depicted in Figure 3 and includes the following components:

- A total of 20 designated parking spaces, including 18 regular width spaces and 2 ADA-compliant spaces, with adjacent special event parking for 42 additional vehicles (also to be used as an emergency helicopter landing zone);
- A District standard gate to extend across the staging area driveway. Informal fences such as logs, boulders, or other low built features may also be developed to discourage visitors from trampling or using off-road vehicles in the Preserve;

- Partial or full asphalt surfaces to reduce maintenance;
- Removal of vegetation along the west side of Alpine road to increase sight distance north from the project driveway. Existing vegetation (e.g., low-lying shrubs and tree limbs) will be removed within an approximately 4-foot-wide swath along the project's border with Alpine Road, north of the proposed driveway, to improve stopping sight distance for southbound vehicles and corner sight distance for vehicles exiting the driveway;
- Native plantings to provide shade and maintain the scenic viewshed along Alpine Road, while permitting adequate visibility for patrol;
- Curbless design to facilitate wildlife passage;
- Swales and infiltration areas in the median and along outer edges of parking lot to filter runoff; and
- Staging area with trailhead and interpretive signage, District-standard vault restroom, and bicycle parking within a transition zone to trail connections and commemorative site.

(2) **Audrey Rust Commemorative Site.** The commemorative site includes minimal site disturbance of 100 cubic yards of grading to provide a paved, ADA-compliant pathway to a paved viewing platform, where low profile signs will provide educational and interpretive information. A bench will provide seating so that visitors can rest and enjoy the views. A stair would connect the paved viewing platform to a concrete plank walkway, raised above grade and extending to a wood viewing deck. The viewing deck connects to a lower wood "painting/viewing deck". The tri-level platform and low-profile design would maintain views out from the site towards Mindego Hill and the Pacific Ocean. Materials would include poured-in-place integral color concrete, pre-cast concrete planks, and sustainably-forested Ipe wood for decks and benches. A walkway consisting of a deck constructed on pilings to minimize the amount of impermeable surfaces at the project site would connect the western end of the staging area to the commemorative site. The conceptual site plan for the commemorative site is depicted in Figure 4.

(3) **Trail Connections.** Each of the two proposed trails is discussed below. Standard District signs and stiles appropriate to trail usage would be installed at the junction of the trails.

Ancient Oaks Connector Trail. The proposed Ancient Oaks Connector Trail would connect the new staging area to the existing Preserve trail network, just over 1 mile to the north. The proposed trail would begin at the northeastern corner of the new staging area and follow an old road alignment through level coastal scrub, then transition into hilly, shaded woodland bisected by the gullied headwaters of several drainages. The trail alignment is sited to minimize construction-phase impacts to these drainages, as well as the potential for use-related erosion and sedimentation. Eventually, the trail would emerge in open grassland, contouring gently around hillsides to connect to the existing Ancient Oaks trail. The new trail would contour across 20 to 60 percent side slopes and would be constructed at an average 10 percent gradient. The proposed trail would be designated as multi-use (open to hiking, biking, and equestrian use consistent with other trails within the Preserve and would be between 3 and 5 feet wide. The trail would be constructed of decomposed granite or similar permeable material for a short (approximately 200 feet) segment to the first stream crossing, then transition to compacted dirt for its remainder.

Three new stream crossings, including two clear-span bridges and one clear-span puncheon, would be constructed as part of the Ancient Oaks Connector Trail. In addition, up to two existing culverted crossings on old road alignments along the proposed trail will be repaired or removed to reduce ongoing impacts to downstream water quality. Design of the crossings and erosion control structures would include engineering and geotechnical review to ensure that all applicable safety and water quality standards are met.

Mindego Hill Trail. The proposed Mindego Hill Trail would connect the existing Mindego Ridge Trail to the summit of Mindego Hill. The Mindego Hill Trail would be restricted to hikers and equestrians only and would average 3 feet in width. The trail would pass through grassland and would be constructed of compacted dirt. The Mindego Hill Trail alignment was designed by District staff and the District's consulting engineering geologist⁴ to avoid potential geological hazards, maintain a gentle grade, and avoid sensitive habitat areas. As part of the project, equestrian use of marked trails would be permitted with horse watering allowed only at designated troughs. The trail would primarily be constructed by hand by experienced District crews, volunteers, or contracted labor crews supervised by District staff. U.S. Fish and Wildlife Service-approved District staff would also be onsite daily during initial ground disturbing activities in grassland, scrub or forested areas to ensure that potential special-status species are not present (refer to Section IV.a, Biological Resources for additional detail). As previously noted, the Mindego Hill Trail is within the Coastside Protection Area's Service Plan boundaries (refer to Section X.b, Land Use and Planning for additional detail).

(4) Grading and Construction. Construction of each component of the proposed project would take place over a 1 to 2 month period occurring during the dry season (generally between April 15 and October 15). The Ancient Oaks Connector Trail would be constructed using small earth-moving equipment such as a compact bulldozer and mini-excavator, while the Mindego Hill Trail would be constructed primarily using hand tools to minimize the potential for impacts to special-status species. Trail construction would be performed or supervised by experienced District field technicians and would incorporate erosion control techniques from the District's Details and Specifications Guidelines.⁵ In addition, Best Management Practices (BMPs) approved by the California Department of Fish and Game and Regional Water Quality Control Board⁶ and in use by the District for proper design and location of bridges, rock fords, and use of silt fencing, would be implemented during project construction to avoid impacts such as erosion at the project site, or downstream sedimentation that can occur during project implementation in sensitive areas (such as a seasonal drainage).

(5) Closure of 1-Mile Segment of Mindego Ridge Trail to Bicycle Use. Approximately 1 mile of the existing, multi-use Mindego Ridge Trail would be designated "hiking and equestrian-use only" to avoid potential impacts to the San Francisco garter snake caused by bicycles. This trail segment consists of the western section of the former ranch driveway (Figure 2), closest to Mindego Lake. Bicycle storage (locker or rack) would be provided to allow cyclists to safely leave their equipment and continue along the trail on foot, if desired.

⁴ Best, Timothy C., 2010. Certified Engineering Geologist, Mindego Hill Trail Project.

⁵ Midpeninsula Regional Open Space District, 2008. *Draft Road and Trail Typical Design Specifications*. May 4.

⁶ Midpeninsula Regional Open Space District, 2007. *Best Management Practices and Standard Operating Procedures for Routine Maintenance Activities in Water Courses*.

9. Surrounding Land Uses and Setting:

As previously described, the project area is surrounded by Russian Ridge Open Space Preserve to the north, west and east, and Skyline Ridge Open Space Preserve to the south and east. The surrounding land uses are open space owned and managed by the District.

10. Other agencies whose approval may be required:

- United States Army Corps of Engineers (Corps)
- California Department of Fish and Game (CDFG)
- Regional Water Quality Control Board (Water Board)
- San Mateo County Planning and Building Division (County)

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |
| | | <input checked="" type="checkbox"/> None With Mitigation |

Determination. (To be completed by the Lead Agency.)

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 by 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.



Ana Ruiz, Planning Manager

February 16, 2012

CHECKLIST

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Have a substantial adverse effect on a scenic vista? (Less-Than-Significant Impact)*

The project site is located in the existing 3,137-acre Russian Ridge Open Space Preserve (Preserve) and is in a rugged, hilly area with elevations ranging from approximately 1,800 to 2,400 feet NGVD. The location of the proposed staging area and commemorative site is situated at the top of the San Gregorio Creek watershed, on a ridge between wooded creeks to the north and south. The landscape is characterized by a mosaic of grassland, oak woodland, and mixed evergreen forest. The proposed project consists of a staging area with a paved parking lot, special event lot, restroom and trailheads; a commemorative site west of the staging area; two new trails; and closure of an existing trail to bicycle use. The staging area would be located within a disturbed, graded flat supporting non-native annual grasses and weeds. This area is not currently accessible to vehicles. The commemorative site would be located on an elevational high point and would provide sweeping views of Mindego Hill and the Pacific Ocean. The proposed trail connections pass through areas of mixed evergreen and oak forest, non-native grassland, coyote brush scrub, and would cross the headwaters of several drainages leading to Mindego Creek. Trails would primarily be constructed of compacted dirt (except for a short 200-foot segment of the Ancient Oaks Connector Trail) and would be 3 to 5 feet wide; the Mindego Hill Trail would average 3 feet wide. Two clear-span bridges and one clear-span puncheon would be constructed to cross the water courses present along the proposed Ancient Oaks Connector Trail alignment. No physical improvements to the existing Mindego Ridge Trail would occur, other than installation of appropriate signage and bicycle racks/lockers.

The staging area and parking lot are located immediately adjacent to Alpine Road, a County of San Mateo "Scenic Road."⁷ The Scenic Road designation is intended to give special recognition and protection to travel routes in rural and unincorporated urban areas, which provide outstanding views of scenic vistas, natural landscape features, historical sites and attractive urban development. The San Mateo County General Plan states that the visual quality of scenic corridors should be protected and

⁷ San Mateo, County of, 1986. *General Plan Policies*. November.

enhanced by managing the location and appearance of structural development. Views from Alpine Road in this location are of the open staging area site, surrounding vegetation, and hills and ridgelines in the distance. The peak of Mindego Hill is also visible.

The proposed staging area, including the parking lot and unpaved special event parking area, as well as the more distant commemorative site, would be visible to drivers from several points along the roadway; the trails would not be visible from the corridor. The staging area would not include any formal structures, but would include the vault restroom facility, fencing, benches, and signage. The commemorative site would be accessed by a neutral-colored, ADA-compliant concrete walkway. The driveway entering the staging area parking lot would be in the same location as the existing dirt driveway to the graded flat and would be paved. The 20-stall parking lot is intended to be paved with asphaltic concrete; however, depending on geologic bearing conditions, base rock may be used instead. The parking lot would be located immediately west of Alpine Road, with approximately 6 parking spaces oriented perpendicular to the roadway, located below an existing embankment, which parallels the roadway. Some of the existing vegetation along the embankment, north of the proposed driveway, would be removed and/or trimmed to improve stopping site distance for motorists traveling southbound on Alpine Road and corner site distance for vehicles exiting the staging area driveway (also refer to Section XVI.d, which discusses this further). Vegetation removal would consist of clearing low-lying shrubs and pruning one or more trees; removal of mature trees is not anticipated. The area to be cleared consists of an approximately 4-foot-wide swath extending from the roadway into the project site, which would open up views of the project site. Although the embankment, remaining vegetation, and new plantings would provide some screening, parking stalls located immediately perpendicular to the roadway would be visible. Remaining parking stalls within the paved area would be situated around the circular driveway and would be within the interior of the site. These spaces would be visible from Alpine Road in two locations located approximately ½ mile north of the site where the higher elevation would afford a view down into the central portion of the proposed staging area. The special event parking area, also within the site's interior, would not be paved. The restroom facility would be located beyond the parking area and may also be visible from the two locations on Alpine Road described above. Although the proposed staging area would be visible from Alpine Road, none of the project improvements would block the existing views of the hills, ridgelines, or Mindego Hill that are currently available. To the extent practical, new landscaping would screen the parking area from the roadway. However, the planting concept seeks to achieve a balance between screening the site from the roadway, leaving open view corridors for the public, providing adequate sight distance, as well as security and monitoring by the District's patrol staff and the County Sheriff. Tree removal would be minimized as much as possible (see discussion in Section IV.e).

Common views along other segments of Alpine Road include overhead utility lines, private paved driveways, paved road intersections, pullouts, mailbox clusters, fencing, gates, and residences. An existing District-owned staging area is located at the intersection of Alpine Road and Skyline Boulevard, approximately 1.4 mile northeast of the site. Although the proposed staging area and parking lot would be visible from Alpine Road, for the reasons described above, associated improvements would not adversely affect the visual character or quality of views available from Alpine Road. Therefore, the proposed project would result in a less-than-significant impact on scenic vistas and in particular views from Alpine Road.

It should also be noted that the commemorative site would provide formal public (and ADA-compliant) access to the western edge of the ridgeline, which provides open views of Mindego Hill, the

Pacific Ocean, and surrounding hills and ridgelines. Improvements at the commemorative site would include a pathway and two viewing platforms. This component of the proposed project would increase public access to, and enjoyment of, scenic vistas available within the Preserve.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? (No Impact)*

The closest State scenic highway is Skyline Boulevard (SR 35), which is located approximately 1.4 miles northeast of the site. Because the site would not be visible from this roadway, the proposed project would not damage scenic resources within a State scenic highway. Also refer to Sections I.a and I.c.

c) *Substantially degrade the existing visual character or quality of the site and its surroundings? (Less-Than-Significant Impact)*

The project site consists of a former corporation yard and has been previously disturbed and graded; non-native grasses and weeds cover the site. A fence and gate currently restricts public access to the site from the existing dirt driveway. While the staging area and commemorative site location is relatively open, the area is surrounded by dense vegetation. Existing non-native vegetation and weeds would be removed and the staging area improvements, including restroom, fencing, benches, boardwalk, and signage, would be constructed according to District standards that are applied to all open space areas under District management. Project improvements would be unobtrusive to allow for visitor enjoyment of the natural surroundings. Fencing and barriers, with the exception of the District-standard entrance gate, would be informal and consist of natural materials such as logs, boulders, or other low built features, where feasible. Although some mature trees may be removed from the site; tree removal would not substantially affect the visual character of the site, given the dense vegetation that is present along much of the perimeter. The proposed planting concept seeks to achieve a balance between screening the site from the roadway, leaving open view corridors for the public, providing adequate sight distance for motorists, as well as security and monitoring by the District's maintenance personnel and the County Sheriff. Plantings would consist of native trees, shrubs, and grasses and would complement the surrounding landscape. Given the above-noted improvements and overall existing disturbed conditions of the natural areas within the site, development of the staging area and commemorative site would not adversely affect the visual quality or character of the site, but would instead represent a general improvement in site conditions. Therefore, construction of the staging area and commemorative site would result in a less-than-significant impact to the visual quality and character of the Preserve.

The proposed trail connections pass through areas of mixed evergreen and oak forest, non-native grassland, coyote brush scrub, and would cross the headwaters of several drainages leading to Mindego Creek. Proposed trail widths would generally be between 3 and 5 feet. The trails would be constructed according to District standards which, in part, are intended to minimize potential impacts on the visual character of the Preserve. Trail construction may require the removal of small trees and other vegetation and would include built features such as retaining walls and water crossings (including two clear-span bridges and one clear-span puncheon). However, the meandering nature of the trail alignments would allow District staff to avoid tree removal to the greatest extent possible. The installation of trail signs, water crossings, and improvements to existing small drainage structures (e.g., small culverts) would result in localized changes that would not substantially alter the scenic qualities of the Preserve or its drainages. Trail design would ensure that any structures and construc-

tion materials would be visually compatible with typical District trail construction and the open space surroundings. Therefore, trail construction would result in a less-than-significant impact to the visual quality and character of the Preserve.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (No Impact)*

The proposed project would not include the use of exterior lighting fixtures. The vault restroom facility would not include any interior lighting and would not include windows or other fixtures that may produce glare. Flat, non-reflective paint or integrated coloring that would blend with the characteristic landscape would be used in all exterior materials associated with the staging area restroom and at the commemorative site. District Ordinance 93-1, Section 805.2 prohibits the use of the Preserve by the public between one-half hour after sunset and sunrise. Project users and their vehicles that are parked in the parking lot would therefore vacate the premises while it is light out, after which time the driveway entrance gate would be closed and locked to prevent vehicles from accessing the site when the area is closed. Vehicles parked within the staging area (and their windows) would not substantially increase glare in the area such that views would be adversely affected. The parking area would only be partially and/or intermittently visible from surrounding areas within the Preserve and from Alpine Road (also refer to Section I.a). Therefore, the proposed project would not create new sources of light or glare affecting day or nighttime views.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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II. AGRICULTURAL 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 Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

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

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a) <i>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 a non-agricultural use? (No Impact)</i>				

The project sites and vicinity are classified as “Other Land” and “Grazing Land” by the State Department of Conservation, Farmland Mapping and Monitoring Program (FMMP).⁸ The Preserve is managed as open space and is not currently used for agricultural production. Therefore, the proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use.

Grazing land is defined by the FMMP as land on which the existing vegetation is suited to the grazing of livestock. Although cattle grazing occurred at Mindego Ranch (where the proposed Mindego Hill Trail would be located) as recently as 2008, the area is not currently used for grazing. Development of the proposed staging area, commemorative site, trails, and closure of an existing trail to bicycle use would not interfere with any current or future grazing activities in the area. Development of the proposed trails also would not preclude future grazing activities from occurring within the Mindego Hill area, should the District decide to reintroduce this use.

b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract? (Less-Than-Significant Impact)*

⁸ California Department of Conservation, 2011. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. *San Mateo County Important Farmland 2008* (map). Website: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/smt08.pdf>. Accessed October 24.

The project area is zoned Resource Management District (RM) on the San Mateo County Zoning Map, and is not zoned for agricultural use. The project site is classified as Non-Prime Agricultural Land under the Williamson Act.⁹ Non-Prime Agricultural Land is defined as land which is enrolled under a Williamson Act contract but which does not meet any of the criteria for classification as Prime Agricultural Land. Non-Prime Land is defined as Open Space Land of statewide significance under the California Open Space Subvention Act.¹⁰ Most Non-Prime Land is used for grazing or production of non-irrigated crops. Other uses include open space uses, which are compatible with agriculture and consistent with the local General Plan. The proposed project would develop a new staging area, commemorative site, and two trails and close an existing trail to bicycle use within the Preserve. These uses are consistent with the District's management of the preserve as open space, which is also consistent with the County's zoning designation for the site as well as the State's Williamson Act designation. Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

- c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?* **(No Impact)**

The project area is zoned Resource Management District (RM) on the San Mateo County Zoning Map, and is not zoned for forest land or timberland. Therefore, development of the proposed project would not conflict with existing zoning for forest land or result in the rezoning of forest land or other land used for the production of timber.

- d) *Result in the loss of forest land or conversion of forest land to non-forest use?* **(No Impact)**

The proposed project would result in the development of a staging area/commemorative site and two trails within the existing Preserve. Although trees are dispersed around the project site and some may be removed or otherwise affected by project construction (see Section IV.e), these trees are located within an open space preserve and do not constitute forest land. Furthermore, the proposed project is consistent with the District's management of the Preserve as open space. Therefore, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest uses.

- e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?* **(No Impact)**

Please refer to Sections II.a and II.d. Development of the proposed project would not 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. Therefore, the proposed project would not adversely affect agricultural or forestry resources.

⁹ California Department of Conservation, 2011. Division of Land Resource Protection, Williamson Act Program. *San Mateo County Williamson Act 2006* (map). Website: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Map%20and%20PDF/San%20Mateo/san_mateo_2006.pdf. Accessed October 24.

¹⁰ Government Code, Title 2, Division 4, Part 1, Chapter 3, Sections 16140 et seq, 2009. *Open Space Subvention Act*. As amended January 1.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) 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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Overview. The County of San Mateo is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), which regulates air quality in the San Francisco Bay Area. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen substantially. In the County and the rest of the air basin, exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

Ozone levels, as measured by peak concentrations and the number of days over the State 1-hour standard, have declined substantially as a result of aggressive programs by the BAAQMD and other regional, State and federal agencies. The reduction of peak concentrations represents progress in improving public health; however the Bay Area still exceeds the State standard for 1-hour and 8-hour ozone levels. In addition, the Bay Area was designated as a marginal nonattainment area for the federal 8-hour ozone level in June 2004. The U.S. Environmental Protection Agency (EPA) lowered the national 8-hour ozone standard from 0.80 to 0.75 parts per million (ppm) on May 27, 2008. In early January 2010, the EPA proposed a stricter standard which has not yet been finalized.¹¹ The Redwood City air monitoring station (the closest monitoring station to the project site) recorded two

¹¹ U.S. Environmental Protection Agency, 2011. National Ambient Air Quality Standards (NAAQS). Website: www.epa.gov/air/criteria.html. Accessed November 2.

days in 2010 on which the State 1-hour ozone standard was exceeded, one day on which the State 8-hour standard was exceeded, and one day on which the federal 8-hour ozone standard was exceeded.¹²

National and State standards have also been established for fine particulate matter (diameter 2.5 microns or less, PM_{2.5}), over 24-hour and yearly averaging periods. Fine particulate matter, because of the small size of individual particles, can be especially harmful to human health. Fine particulate matter is emitted by common combustion sources such as cars, trucks, buses and power plants, in addition to ground-disturbing activities. The Bay Area is considered a nonattainment area for PM_{2.5} at the State level and an attainment area at the federal level.

The Bay Area is an unclassified area for the federal PM₁₀ standard and a nonattainment area at the State level. An “unclassified” designation signifies that data does not support either an attainment or nonattainment status. No exceedances of the State or federal 24-hour levels of particulate matter (PM₁₀) were measured at the Redwood City air monitoring station in 2008 (the most recent year with available data). No exceedances of the State or federal carbon monoxide (CO) standards have been recorded at any of the region’s monitoring stations since 1991. The Bay Area is currently considered an attainment area for State and federal CO standards.

a) *Conflict with or obstruct implementation of the applicable air quality plan? (Less-Than-Significant Impact)*

The main purpose of an air quality plan is to bring an area into compliance with the requirements of federal and State air quality standards. Such plans describe air pollution control strategies to be implemented by a city, county or region.

The most recent BAAQMD plan for attaining California Ambient Air Quality Standards, the 2010 Clean Air Plan, was adopted on September 15, 2010. The Clean Air Plan demonstrates how the San Francisco Bay Area will achieve compliance with the State 1-hour air quality standard for ozone and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. The purpose of the Clean Air Plan is to:

1. Update the Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement “all feasible measures” to reduce ozone. The Bay Area 2005 Ozone Strategy was developed in order to bring the region into compliance with State and federal air quality standards and was adopted by the BAAQMD Board of Directors in January 2006;
2. Consider the impacts of ozone control measures on particulate matter, air toxics, and greenhouse gases in a single, integrated plan;
3. Review progress in improving air quality in recent years; and
4. Establish emission control measures to be adopted or implemented in the 2009 to 2012 time-frame.

The County and the project site are located in the San Francisco Bay air basin and are within the jurisdiction of the BAAQMD. The County General Plan is consistent with this plan. No General Plan amendment would be required to implement the proposed project and the proposed uses are consis-

¹² California Air Resources Board, 2011. iADAM Air Quality Data Statistics. Website: www.arb.ca.gov/adam/. Accessed November 2.

tent with the District's management of the Preserve for open space uses and passive recreation. Therefore, the proposed project is generally consistent with the intent of the General Plan, and therefore would not conflict with the Clean Air Plan, resulting in a less-than-significant impact.

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Potentially Significant Unless Mitigation Incorporated)*

Development of the proposed project could affect air quality by: 1) the release of dust and exhaust during the project construction period (construction impacts); and 2) the release of exhaust associated with visitors driving to and from the project site (operational impacts).

In June 2011, the BAAQMD updated their CEQA Air Quality Guidelines, which replace the previous guidelines dating from June 2010. Recommended thresholds for construction and operational-related emissions have been developed and, according to the thresholds, the proposed project would result in a significant air quality impact if it would:

- Generate construction-related exhaust emissions of Reactive Organic Gases (ROG),¹³ NO_x or PM_{2.5} greater than 54 pounds per day or PM₁₀ greater than 82 pounds per day; or
- Generate operational-related emissions of ROG, NO_x or PM_{2.5} greater than 54 pounds per day (or 10 tons per year) or PM₁₀ greater than 82 pounds per day (or 15 tons per year).

In addition to the recommended thresholds of significance set forth in the BAAQMD CEQA Air Quality Guidelines, new development would result in potentially significant construction-related air quality impacts if Best Management Practices are not implemented.

Construction Period Impacts. The Sacramento Metropolitan Air Quality Management District's Road Construction Emission Model, Version 6.3.2 (RoadMod) was used to estimate construction emissions related to the project. The modeling methodology used to estimate emissions is based on estimated construction operations by vehicle type and equipment emission factors developed by the California Air Resources Board (ARB). Model calculations also consider the additional emissions generated by worker commute trips. RoadMod quantifies roadway (or linear paved area) construction project air emissions over the entire construction period and is recommended by the BAAQMD for use on projects within the San Francisco Bay Area. Inputs to the model were based on assumptions provided in the project description and the model worksheets. Inputs and assumptions are included in Appendix A. Table 1 presents estimated construction-related emissions that would be generated by the proposed project.

¹³ Reactive Organic Gases (ROG) are compounds that transform with heat and sunlight to form ozone smog.

Table 1: Project Construction Emissions in Pounds/Day

Project Construction Phase	ROG	CO	NO _x	Exhaust PM ₁₀	Fugitive Dust PM ₁₀	Total PM ₁₀	Exhaust PM _{2.5}	Fugitive Dust PM _{2.5}	Total PM _{2.5}
Unmitigated Construction Emission Estimates	2.8	11.8	20.2	1.2	6.0	6.9	1.1	1.2	2.1
BAAQMD Daily Thresholds	54.0	NA	54.0	82.0	BMP	NA	54.0	BMP	NA
Exceed Threshold?	No	NA	No	No	NA	NA	No	NA	NA

Notes:

BMP = Best Management Practices

NA = Not Applicable

Some totals may vary slightly due to rounding.

Source: LSA Associates, Inc., November 2011.

As indicated in Table 1, none of the construction emissions estimates exceed BAAQMD thresholds. Furthermore, the California Air Resources Board (ARB) has acknowledged that the emission factors from the model overestimate NO_x and PM emissions by at least 33 percent,¹⁴ so actual project construction emissions are expected to be lower than those presented in Table 1. Potential construction period impacts include increased dustfall and locally-elevated levels of particulate matter downwind of construction. Implementation of the following mitigation measure would ensure compliance with BAAQMD-recommended measures for dust control and Best Management Practices, and would reduce construction-period impacts to a less-than-significant level:

Mitigation Measure AIR-1: The construction contractor shall implement the following measures at all construction sites:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day when conditions are dry.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt tracked-out onto adjacent public roads shall be removed. The use of dry power sweeping shall be prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All parking areas and driveways to be paved shall be completed as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations (CCR)). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- A publicly visible sign shall be posted with the telephone number and person to contact at the District regarding dust complaints. This person shall respond and take corrective action

¹⁴ Sierra Research Inc., 2010. *Emissions from Diesel Fueled Non-Road Equipment in California*. April.

within 48 hours. The BAAQMD’s phone number shall also be visible to ensure compliance with applicable regulations.

Operation Period Impacts. Long-term operation, including traffic related to the proposed project, would generate a small amount of regional and localized emissions. The BAAQMD has established a significance threshold for the two ozone precursors [reactive organic gases (ROG) and nitrous oxide (NO_x)] and particulate matter of 2.5 microns or less (PM_{2.5}) at 54 pounds/day and particulate matter of 10 microns or less (PM₁₀) at 82 pounds/day. The emissions from daily vehicle trips and project operations are shown in Table 2. Based on the model results, the long-term vehicular emissions and area source emissions generated by the proposed project would be low and would not exceed the BAAQMD’s thresholds; therefore, the project would result in a less-than-significant impact on local and regional air quality.

Table 2: Project Regional Emissions

Emissions in Pounds Per Day				
	Reactive Organic Gases	Nitrogen Oxides	PM ₁₀	PM _{2.5}
Area Source Emissions	0.12	0.02	0.01	0.01
Mobile Source Emissions	0.45	0.56	1.13	0.21
Total Emissions	0.57	0.58	1.14	0.22
BAAQMD Significance Threshold	54.00	54.00	82.00	54.00
Exceed?	No	No	No	No
Emissions in Tons Per Year				
Area Source Emissions	0.01	0.00	0.00	0.00
Mobile Source Emissions	0.09	0.12	0.21	0.04
Total Emissions	0.10	0.12	0.21	0.04
BAAQMD Significance Threshold	10.00	10.00	15.00	10.00
Exceed?	No	No	No	No

Source: LSA Associates, Inc., 2012

- c) *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)? (Potentially Significant Unless Mitigation Incorporated)*

As discussed in Section III.b, with implementation of Mitigation Measure AIR-1, construction and operation of the proposed project would not result in significant levels of criteria air pollutants or pollutant precursors. Therefore, construction and operation of the project would not result in a cumulatively considerable contribution to pollution levels in the air basin and this impact would be less than significant.

- d) *Expose sensitive receptors to substantial pollutant concentrations? (Less-Than-Significant Impact)*

The project site is located approximately 750 feet northwest of residences on Alpine Road. These residential uses may contain sensitive receptors: individuals that may be particularly sensitive to the

adverse effects of air pollution. Individuals who are exercising (i.e., those who are walking briskly, jogging, or running) may also be considered sensitive receptors due to their accelerated and deep breathing rates. No hospitals are located within ¼-mile of the project site.

The use of construction equipment on the project site, such as excavators, dozers and trucks would result in diesel emission exhaust, including diesel particulate emissions. The project site is located in a rural area with the closest stationary sensitive receptor (a residence) located approximately 750 feet from the construction site. The BAAQMD's Screening Tables for Air Toxics Evaluation During Construction,¹⁵ indicate that certain construction projects that are located within 300 feet of an existing sensitive receptor could pose a significant health risk. At a distance of 750 feet, and with the duration of the construction period less than 2 months, the proposed project would not expose stationary sensitive receptors to substantial pollutant concentrations.

The immediate project area would be closed to the public during construction activities and any persons recreating or exercising within the Preserve would be restricted from accessing the construction site itself. Nearby existing trails (particularly the existing Mindego Ridge Trail) would remain open to the public during the construction period. Construction activities at the staging area and commemorative site may generate dust and exhaust emissions. Sensitive receptors (including residents and recreationists/exercisers) in the vicinity of the project site would be temporarily exposed to diesel engine exhaust during the construction period due to the operation of construction equipment. However, the project would implement the BAAQMD's control measures outlined in Mitigation Measure AIR-1, which would reduce any construction-related particulate matter emissions from both the trail and parking lot construction activities to a less-than-significant level. Exposure of exercising individuals to diesel exhaust as they pass near the project site would be minor and brief.

e) *Create objectionable odors affecting a substantial number of people? (Less-Than-Significant Impact)*

The intent of the proposed project is to provide increased access to low-intensity, non-motorized recreational opportunities within the Preserve. These uses do not emit objectionable odors. The self-contained, vault toilet does have the potential to generate odors. However, any odors would not affect a substantial number of people, as the restroom's black ventilation stack would be heated by the sun to draw potential odors up and out where they will quickly dissipate. In the event that offensive odors are detected before dissipating, they would remain localized around and within the unit itself and would not impact a substantial number of people within the staging area itself, the Preserve or on neighboring properties.

Additionally, the combustion of diesel during construction could create objectionable odors. However, these temporary odors would subside once project construction is concluded. Some visitors to the project site may use diesel fueled vehicles; however, this is expected to be an infrequent occurrence and would not be a significant source of odors. Therefore, the proposed project would not create objectionable odors affecting a substantial number of people and this impact would be less than significant.

¹⁵ Bay Area Air Quality Management District, 2010. *Screening Tables for Air Toxics Evaluation During Construction*. May.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The following discussion of biological resources within the project site and vicinity is based on the *Biotic Assessment* prepared for the proposed project.¹⁶ The *Biotic Assessment* is included as Appendix B to this report. LSA Associates, Inc biologists also conducted a reconnaissance level survey of the project site on October 26, 2011, to verify the findings presented in the *Biotic Assessment*.

Overview. The vegetation types and habitats for the commemorative site/staging area, Ancient Oaks Connector Trail, Mindego Hill Trail, and Mindego Ridge Trail are described in detail below.

¹⁶ Biosearch Associates and Coast Range Biological, 2011. *Biotic Assessment: Mindego Gateway Study Area, San Mateo County, California*. Santa Cruz, California. November.

Botanical nomenclature in the *Biotic Assessment* follows Hickman (1993)¹⁷ and the California Native Plant Society (CNPS) Inventory (2011).¹⁸ Nomenclature for vegetation communities in the *Biotic Assessment* follows Holland (1986)¹⁹ and for vegetation series Sawyer and Keeler-Wolf (1995).²⁰ Wetland features within or adjacent to the project site include several ephemeral drainages flowing to Mindego Creek. These drainages traverse the project site along the route of the proposed Ancient Oaks Connector Trail. In addition, Mindego Lake is a prominent wetland feature in the project vicinity. This water body is located approximately 1,500 feet west of the proposed Mindego Hill Trail and supports populations of two species listed under the federal Endangered Species Act: California red-legged frog (*Rana draytonii*) (Threatened) and San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) (Endangered). San Francisco garter snake is also listed as endangered under the California Endangered Species Act and is considered “Fully Protected” under California Department of Fish and Game (CDFG) code Section 5050. In addition, this area supports habitat for the western pond turtle (*Actinemys marmorata*), a California Species of Special Concern.

Commemorative Site/Staging Area. The site proposed for construction of the commemorative site and staging area is a heavily disturbed, graded flat with compacted soils, base rock, and other surface disturbance located adjacent to and west of Alpine Road. The dominant vegetation type is a ruderal phase of non-native grassland/California annual grassland series, dominated by non-native grasses and forbs including yellow star-thistle (*Centaurea solstitialis*), wild oats (*Avena* sp.), wild radish (*Raphanus sativus*), soft chess (*Bromus hordeaceus*), Italian ryegrass (*Lolium multiflorum*), barley (*Hordeum murinum*), sheep sorrel (*Rumex acetosella*), hedgehog dogtail (*Cynosurus echinatus*), summer mustard (*Hirschfeldia incana*), and Italian thistle (*Carduus pycnocephalus*), with occasional native species including California poppy (*Eschscholzia californica*) and slender tarweed (*Madia gracilis*). A small area of blue wild rye grassland, a plant community considered sensitive by the California Department of Fish and Game (CDFG), occurs northwest of the proposed commemorative site. This grassland is dominated by blue wild rye (*Elymus glaucus*) and other native grasses and forbs, including purple needlegrass (*Nassella pulchra*), soap plant (*Chlorogalum pomeridianum*), Kellogg’s yampah (*Perideridia kelloggii*), and yarrow (*Achillea millefolium*).

Ancient Oaks Connector Trail. The proposed multi-use (hiking/biking/equestrian) Ancient Oaks Connector Trail would traverse three habitats: non-native grassland, mixed evergreen forest, and coyote brush scrub. Non-native grassland occurs primarily in the northern portion of the trail corridor. This grassland is dominated by a less disturbed phase of the California annual grassland series found at the commemorative site/staging area, but with generally similar species composition consisting of dense non-native grasses and forbs with occasional native species such as California poppy, yarrow, and purple needlegrass.

Mixed evergreen forest, composed primarily of the Douglas-fir and coast live oak series, is dominated by a canopy of native trees, including Douglas-fir (*Pseudotsuga menziesii*), coast live oak (*Quercus*

¹⁷ Hickman, J. (ed), 1993. *The Jepson Manual: Higher Plants of California*. University of California Press. Berkeley and Los Angeles, California

¹⁸ California Native Plant Society, 2011. *Inventory of Rare and Endangered Plants of California* (online edition, v7-11 Oct 10-23-11). Website: www.cnps.org/inventory.

¹⁹ Holland, R. F., 1986. *Preliminary descriptions of the terrestrial natural communities of California*. California Department of Fish and Game. Sacramento, California.

²⁰ Sawyer, J.O, and T. Keeler-Wolf, 1995. *A manual of California vegetation*. California Native Plant Society. Sacramento, California.

agrifolia), canyon live oak (*Quercus chrysolepis*), tanoak (*Lithocarpus densiflorus*), California bay (*Umbellularia californica*), California buckeye (*Aesculus californica*), big-leaf maple (*Acer macrophyllum*), and madrone (*Arbutus menziesii*). The understory consists of native shrubs and herbs, including poison oak (*Toxicodendron diversilobum*), California hazelnut (*Corylus cornuta* var. *californica*), California blackberry (*Rubus ursinus*), wood rose (*Rosa gymnocarpa*), toyon (*Heteromeles arbutifolia*), oceanspray (*Holodiscus discolor*), wood fern (*Dryopteris arguta*), Douglas iris (*Iris douglasiana*), trailplant (*Adenocaulon bicolor*), and swordfern (*Polystichum munitum*).

Coyote brush scrub, composed primarily of the coyote brush series, is dominated by coyote brush (*Baccharis pilularis*), with native shrubs and herbs present, including poison oak, California blackberry, toyon, wood fern, sticky monkey flower (*Mimulus aurantiacus*), California coffeeberry (*Rhamnus californica*), blue elderberry (*Sambucus mexicana*), and California sagebrush (*Artemisia californica*).

Mindego Hill Trail. The proposed hiking and equestrian-use only Mindego Hill Trail would start from the existing Mindego Ridge Trail and extend southwest up to the summit of Mindego Hill. The trail alignment would occur in a highly disturbed phase of non-native grassland dominated by non-native grasses and forbs similar to those described above for the commemorative site/staging area, with a particularly dense concentration of soft chess, wild oats, Italian ryegrass, Italian thistle, and milk thistle (*Silybum marianum*).

Mindego Ridge Trail. The existing Mindego Ridge Trail is an existing trail connecting the commemorative site/staging area with the proposed Mindego Hill Trail. The portion of Mindego Ridge Trail that lies within the project area passes through mixed evergreen forest, non-native grassland, and coyote brush scrub.

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

The *Biotic Assessment* evaluated 46 special-status species for potential occurrence on or near the project site: 18 plant species, 1 fish species, and 27 wildlife species. As shown in Table 3, species were classified for their potential of occurrence within the project site as follows: None, Low, Moderate, High, or Present. For species with a potential for occurrence of None or Low, microhabitat for the species was lacking or otherwise degraded or unsuitable, and the species was considered unlikely to inhabit the project site. Species were considered to have a Moderate or High potential for occurrence if suitable habitat was present and/or the species was documented to occur in the region. Species were considered Present on the project site if they were observed during fieldwork and/or documented to occur on the project site during the background literature search.

Plant Species. As shown in Table 3, 16 special-status plant species were classified with a potential of occurrence of “None” or “Low” and are therefore not expected to be adversely affected by the proposed project. These species, in addition to CNPS List 4 species, such as Santa Clara red ribbons (*Clarkia concinna* spp. *automixa*), which are relatively common and not of immediate conservation concern, are not addressed further in this report. Two special-status plant species, robust monardella (*Monardella villosa* spp. *globosa*) and Dudley’s lousewort (*Pedicularis dudleyi*) potentially occur within the stands of mixed evergreen forest and non-native grassland along the proposed Ancient

Oaks Connector Trail. If these species are present, they could be adversely affected by trail construction, including mortality of individuals by crushing or indirectly through habitat destruction. Therefore, implementation of the following two-part mitigation measure is required to ensure that potential impacts to rare plants that may be present within and in the vicinity of the Ancient Oaks Connector Trail alignment are reduced to a less-than-significant level.

Mitigation Measure BIO-1a: Prior to construction, a focused plant survey following CDFG protocol²¹ shall be conducted for robust monardella and Dudley's lousewort on the proposed Ancient Oaks Connector Trail alignment during the late spring/early summer blooming period (generally between April and June for Dudley's lousewort and June through August for robust monardella). If these species are not found during the focused survey, no additional mitigation measures for special-status plants are necessary.

Mitigation Measure BIO-1b: If special-status plants are found during the focused survey required in Mitigation Measure BIO-1a, the population shall be mapped and, in consultation with the Department of Fish and Game, a suitable buffer zone established around the population (based on species requirements, proximity to the work area, and other site specific factors) in which no trail construction, material storage, or staging activities will be allowed. If it is not feasible to avoid populations of robust monardella and/or Dudley's lousewort, seed shall be collected from the plants that will be affected by trail construction and a propagation and/or reseeding plan shall be developed in coordination with the CDFG. Rare plant populations shall be mitigated at a minimum 1:1 ratio (impacted: reestablished) as measured on the basis of area impacted, number of plants impacted, or number of plant populations impacted. Seeds or propagated plants shall be planted in suitable habitat on the project site or on adjacent open-space lands. A 5-year monitoring plan to document the success of the propagation and/or reseeding program shall also be developed by the District and approved by CDFG before the start of project construction.

Wildlife Species. As shown in Table 3, eight special-status wildlife species were classified with a potential of occurrence of "None" or "Low" and are not expected to be adversely affected by the proposed project. These species are therefore not addressed further in this report. The Allen's hummingbird (*Selasphorus sasin*), Nuttall's woodpecker (*Picoides nuttallii*), oak titmouse (*Baeolophus inornatus*), black-chinned sparrow (*Spizella atrogularis*), and Lawrence's goldfinch (*Spinus lawrencei*) are considered federal bird species of conservation concern.²² However, all these species are common in California, are not of immediate conservation concern, and have no legal status under federal or State endangered species acts. These species are therefore not evaluated further in this report. However, nests, eggs, fledglings, and nesting adults of these species are protected (as are most native bird species) from disturbance and destruction under the Migratory Bird Treaty Act and CDFG Code. Impacts to nesting birds are discussed in the golden eagle and white tail kite section, below.

²¹ California Department of Fish and Game, 2009. *Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*.

²² U.S. Fish and Wildlife Service, 2008. Bird of Conservation Concern 2008. United States Department of the Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. Website: www.fws.gov/migratorybirds/.

Table 3: Special-Status Species with a Potential to Inhabit the Area

Species	Status ^a	Typical Habitat	Potential for Occurrence on Project Site
PLANTS			
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	List 1B.2	Cismontane woodland, valley and foothill grassland (clay, often on serpentine), dry hillsides, 100-300 (670) m. Blooms May-June.	Low. Some suitable habitat present in Non-Native Grassland but suitable microhabitat (clay or serpentine soils) lacking from the study area.
<i>Arctostaphylos andersonii</i> Santa Cruz manzanita	List 1B.2	Broadleaved upland forest, chaparral, North Coast coniferous forest (openings, edges), 60-730 m. Blooms November-April.	None. No manzanita observed on the study area. Should have been identifiable during field visits.
<i>Arctostaphylos regismontana</i> Kings Mountain manzanita	List 1B.2	Broadleaved upland forest, chaparral, North Coast coniferous forest, 305-730 m. Blooms January-April.	None. No manzanita observed on the study area. Should have been identifiable during field visits.
<i>California macrophylla</i> round-leaved filaree	List 1B.1	Cismontane woodland, valley and foothill grassland (heavy clay), 15-1,200 m. Blooms March-May.	Low. Suitable heavy clay microhabitat not present on study area.
<i>Calyptidium parryi</i> var. <i>hesseae</i> Santa Cruz Mountains pussypaws	List 1B.1	Chaparral, cismontane woodland (sandy or gravelly openings), 305-1530 m. Blooms May-August.	Low. No suitable microhabitat (sandy or gravelly openings) present on the study area.
<i>Clarkia concinna</i> ssp. <i>automixa</i> Santa Clara red ribbons	List 4.3	Chaparral, cismontane woodland, 90-1,500 m. Blooms May-June.	Moderate. Some suitable habitat present in Mixed Evergreen Forest. Documented occurrences ~1.6-mile east of study area.
<i>Dirca occidentalis</i> Western leatherwood	List 1B.2	Broadleaved upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, North Coast coniferous forest, riparian forest and woodland. Usually on brushy slopes, mesic sites in mixed evergreen and foothill woodland communities, 30-550 m. Deciduous shrub, blooms January-April.	None. Suitable habitat present in Mixed Evergreen Forest but species should have been identifiable during field visits and was not observed.
<i>Eriogonum nudum</i> var. <i>decurrens</i> Ben Lomond buckwheat	List 1B.1	Chaparral, cismontane woodland, lower montane coniferous forest (maritime ponderosa pine sandhills)/sandy, 50- 800 m. Blooms June-October.	Low. Suitable sandy microhabitat not present. Species should have been identifiable during field surveys and was not observed.
<i>Eriophyllum latilobum</i> San Mateo wooly sunflower	FE, SE, List 1B.1	Cismontane woodland (serpentine, often on roadcuts), 45-150 (610) m. Blooms May-June.	None. Suitable serpentine habitat not present. Species should have been identifiable during field surveys and was not observed.
<i>Legenere limosa</i> Legenere	List 1B.1	Vernal pools, 1-880 m. Blooms April-June.	None. No vernal pool habitat present.
<i>Malacothamnus arcuatus</i> Arcuate bush mallow	List 1B.2	Chaparral, cismontane woodland, 15-355 m. Blooms April-September.	None. No <i>Malacothamnus</i> observed on the study area. Should have been identifiable during field visits.
<i>Monardella villosa</i> ssp. <i>globosa</i> Robust monardella	List 1B	Broadleaved upland forest (openings), chaparral (openings), cismontane woodland, coastal scrub, valley and foothill grassland, 100-915 m. Blooms June-August.	Moderate. Some suitable habitat present in Mixed Evergreen Forest and Non-Native Grassland. Documented occurrence ~2-miles north of project site.

Table 3 Continued

Species	Status ^a	Typical Habitat	Potential for Occurrence on Project Site
PLANTS Continued			
<i>Monolopia gracilens</i> Woodland woollythreads	List 1B.2	Broadleaved upland forest openings, chaparral openings, cismontane woodland, North Coast coniferous forest openings, valley and foothill grassland (serpentine), sandy to rocky soils, 100-1,200 m. Blooms March-July.	Low. Some suitable habitat present in Non-Native Grassland and openings in Mixed Evergreen Forest but suitable microhabitat (serpentine, sandy to rocky soils) generally lacking from study area.
<i>Pedicularis dudleyi</i> Dudley's lousewort	List 1B, SR	Chaparral (maritime), cismontane woodland, North Coast coniferous forest, valley and foothill grassland, 60 to 900 m. Blooms April-June.	Moderate. Some suitable habitat present in Mixed Evergreen Forest and Non-Native Grassland. Documented occurrence ~2-miles south of project site.
<i>Pentachaeta bellidiflora</i> White-rayed pentachaeta	FE, SE, List 1B.1	Valley and foothill grassland. Open dry rocky slopes and grassy areas, often on soils derived from serpentine bedrock, 35-620 m. Blooms March-May.	Low. No suitable serpentine habitat present on the study area.
<i>Piperia candida</i> White-flowered rein orchid	List 1B.2	Broadleaved upland forest, lower montane coniferous forest, North Coast coniferous forest (sometimes serpentinite), 30-1,310 m. Blooms May-September.	Low. Marginal habitat present in Mixed Evergreen Forest, but microhabitat (serpentine) not present and species should have been in bloom during field visits and was not observed.
<i>Stuckenia filiformis</i> Slender-leaved pondweed	List 2.2	Marshes and swamps (assorted shallow freshwater), 300-2150 m. Blooms May-July.	None. No suitable aquatic habitat on the study area.
<i>Pentachaeta bellidiflora</i> White-rayed pentachaeta	FE, SE, List 1B.1	Valley and foothill grassland. Open dry rocky slopes and grassy areas, often on soils derived from serpentine bedrock, 35-620 m. Blooms March-May.	Low. No suitable serpentine habitat present on the study area.
WILDLIFE			
Fish			
<i>Oncorhynchus mykiss irideus</i> Steelhead – central California coast DPS	FT	From Russian River south to Soquel Creek and to, but not including, the Pajaro River. Also includes San Francisco and San Pablo Bay Basins.	None. Known from Mindego Creek but drainages on the study area are ephemeral and do not support fish.
Amphibians			
<i>Rana draytonii</i> California red-legged frog	FT, SSC	Breeds in semi-permanent and perennial water sources often with dense, shrubby or emergent riparian vegetation including stock ponds and marshes; uses a variety of wetland habitats including streams during the summer months.	Low. Observed in Mindego Lake, ~1,500 feet west of the proposed Mindego Hill Trail; could use portions of the project site during overland movements between aquatic habitats the winter and spring the wet season.
<i>Rana boylei</i> Foothill yellow-legged frog	SSC	Breeds in perennial streams with cobble-sized substrate; highly aquatic species.	None. Aquatic habitats unsuitable in study area.
Reptiles			
<i>Actinemys marmorata</i> Western pond turtle	SSC	Inhabits permanent or nearly permanent bodies of water in many habitat types below 6000 ft. elevation. Typically nests in grassy, open habitat.	Moderate. Observed in Mindego Lake, ~1,500 feet west of the proposed Mindego Hill Trail; could use open, grassy portions of the project site for nesting in spring (April-June).

Table 3 Continued

Species	Status ^a	Typical Habitat	Potential for Occurrence on Project Site
Reptiles Continued			
<i>Phrynosoma coronatum</i> Coast horned lizard	SSC	Chaparral, grasslands, coniferous forests in fine, loose soils	Low. Soil types are not optimal but known to inhabit portions of nearby Monte Bello Open Space Preserve approximately 4 miles east of the staging area.
<i>Thamnophis sirtalis tetrataenia</i> San Francisco garter snake	FE, SE, FP	Vicinity of freshwater marshes, ponds, and slow moving streams in San Mateo and extreme northern Santa Cruz Counties. Prefers dense wetland cover that supports ranid frog prey and adjacent uplands with open scrub areas	Low. Observed in Mindego Lake, ~1,500 feet west of the proposed Mindego Hill Trail; could cross portions of the project site during seasonal movements .
Birds			
<i>Aquila chrysaetos</i> Golden eagle	FP	Nests in large trees and cliffs; forages in open habitats	Moderate. Could forage in Non-Native Grassland and nest in trees on the project site.
<i>Buteo regalis</i> Ferruginous hawk	BCC	Winters in grasslands and other open habitats	Low. Could forage in Non-Native Grassland.
<i>Circus cyaneus</i> Northern harrier (nesting)	SSC	Nests on ground in marsh and grassland habitats	Low (nesting). Foraging habitat present in Non-Native Grassland proximate to Mindego Hill.
<i>Elanus leucurus</i> (nesting) White-tailed kite	FP	Open grassland, meadows, or marshes, for foraging, close to isolated, dense-topped trees for nesting and perching.	Moderate. Could forage in Non-Native Grassland and nest in trees on the project site.
<i>Asio otus</i> long-eared owl <i>Brachyramphus marmoratus</i> Marbled murrelet	SSCFT, SE	Nests in open woodland and coniferous forests, often near riparian areas. Nests in coastal forests from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old growth redwood-dominated forests, often in Douglas-fir, up to six miles inland.	Moderate. Could forage in Non-Native Grassland and nest in trees on the project site. None. No suitable old growth forest habitat on the study area.
<i>Asio otus</i> Long-eared owl	SSC	Nests in open woodland and coniferous forests, often near riparian areas	Moderate. Could forage in Non-Native Grassland and nest in trees on the project site.
<i>Chaetura vauxi</i> Vaux's swift	SSC	Nests in snags, sometimes chimneys.	Moderate. Potential nesting habitat adjacent to the staging area and along portions of the Ancient Oaks Connector Trail.
<i>Cypseloides niger</i> Black swift	BCC; SCC	Nests on cliffs behind or adjacent to waterfalls	None. No suitable nesting habitat on the study area.
<i>Selasphorus sasin</i> Allen's hummingbird	BCC	Nests in narrow coastal belt in woodland and scrub habitats.	High. Potential nesting habitat adjacent to the staging area and along portions of the Ancient Oaks Connector Trail.
<i>Picoides nuttallii</i> Nuttall's woodpecker	BCC	Nests in oak woodland and along riparian corridors.	Moderate. Potential nesting habitat adjacent to the staging area and along portions of the Ancient Oaks Connector Trail.
<i>Contopus cooperi</i> Olive-sided flycatcher	SSC	Nests primarily in coniferous forests with open canopy; nests in Eucalyptus forest along coast.	Moderate. Limited amount of nesting habitat along Ancient Oaks Connector Trail.
<i>Baeolophus inornatus</i> Oak titmouse	BCC	Nests in oak, oak-pine and pinyon-juniper woodland.	High. Potential nesting habitat adjacent to the staging area and on the Ancient Oaks Connector Trail.
<i>Ammodramus savannarum</i> Grasshopper sparrow	SSC	Nests in short- to mid-height open grasslands.	High. Potential habitat in open grassy areas.

Table 3 Continued

Species	Status ^a	Typical Habitat	Potential for Occurrence on Project Site
Birds Continued			
<i>Passerculus sandwichensis alaudinus</i> Bryant's savannah sparrow	SSC	Nests in tidally influenced habitats and moist grasslands and occasionally dry grasslands.	High. Potential habitat in open grassy areas.
<i>Spizella atrogularis</i> Black-chinned sparrow	BCC	Nests in arid scrub habitats on rugged slopes.	Low. Patches of habitat along the Ancient Oaks Connector Trail but no records from the area.
<i>Carduelis lawrencei</i> Lawrence's goldfinch	BCC	Nests in open woodlands in proximity to water.	Moderate. Potential nesting habitat adjacent to the staging area and along portions of the Ancient Oaks Connector Trail.
Mammals			
<i>Antrozous pallidus</i> Pallid bat	SSC	Roosts in caves, trees and buildings; forages in variety of habitats.	Moderate. Suitable habitat present in mature trees.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	SSC, WBWG	Roosts primarily in caves and buildings; forages in variety of habitats.	Low. No suitable roosting sites in study area.
<i>Myotis thysanodes</i> Fringed myotis	WBWG	In a wide variety of habitats, optimal are pinyon-juniper, valley and foothill hardwood and hardwood conifer. Uses caves, mines, buildings, or crevices for maternity colonies and roosts.	Moderate. Suitable habitat present in mature trees.
<i>Myotis volans</i> Long-legged myotis	WBWG	Roosts in trees, rock crevices, mines and buildings.	Moderate. Suitable habitat present in mature trees.
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	SSC	Forest habitats of moderate canopy and moderate to dense understory. Also in chaparral habitats. Constructs houses of shredded grass, leaves, and other material.	Present. Two woodrat houses observed along Ancient Oaks Connector Trail. More expected in the area.
<i>Taxidea taxus</i> American badger	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats. Preys on burrowing rodents; digs burrows for dens and during foraging activities.	Present. Badger activity observed along Ancient Oaks Connector Trail.

^a Key to Status:

- FE Federal Endangered
- FT Federal Threatened
- SE State Endangered
- SSC California Department of Fish and Game Species of Special Concern
- FP California Department of Fish and Game Fully Protected Species
- List 1B California Rare Plant Rank: rare, threatened, or endangered in California and elsewhere

Sources:

- California Department of Fish and Game, 2011. Biogeographic Data Branch. *California Natural Diversity Database (CNDDDB)*, Commercial Version. September 3.
- California Department of Fish and Game, 2011b. Special animals list. Website: www.dfg.ca.gov/hcpb/species/lists.shtml.
- U.S. Fish and Wildlife Service, 2011. Sacramento District. Official species lists. Website: www.fws.gov/sacramento/es/spp_list.htm.
- Zeiner, D. C., W. F. Laudenslayer, Jr., and K.E. Mayer, 1988. *California's Wildlife, Volume I, Amphibians and Reptiles*. The Resources Agency, Department of Fish and Game, Sacramento, California.

Potential impacts to the following special status wildlife species are evaluated in detail below: San Francisco garter snake, California red-legged frog, western pond turtle, golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*), San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), American badger, (*Taxidea taxus*), and pallid bat (*Antrozous pallidus*). Mitigation measures are recommended to reduce potential impacts to these species to a less-than-significant level.

San Francisco Garter Snake. Mindego Lake, located approximately 1,500 feet west of the proposed Mindego Hill Trail, supports populations of San Francisco garter snake, California red-legged frog, and western pond turtle. Individual sightings of San Francisco garter snake have also been documented at “Upper Lake,” approximately 700 feet west of the proposed trail. The discussion below addresses potential impacts to San Francisco garter snakes and recommends mitigation measures (three-part Mitigation Measure BIO-2) to reduce these potential impacts to a less-than-significant level. Potential impacts to California red-legged frogs and western pond turtles are discussed in the following sections; Mitigation Measure BIO-2 would also reduce impacts to these species to a less-than-significant level.

The San Francisco garter snake occupies uplands in proximity to freshwater marshes, ponds, sloughs, and associated riparian corridors, especially where dense shoreline vegetation is present. Aquatic sites provide prey. Adult snakes feed primarily on larger frogs, including California red-legged frogs and American bullfrogs (*Lithobates catesbeianus*), but they may also take fish, salamanders, newts and earthworms. The San Francisco garter snake uses a variety of upland habitats, including grassland, woodland and coastal scrub. During the winter, it is generally inactive underground in rodent burrows or other cover but may emerge during warm periods.²³ From spring through the fall, the garter snake is typically found near dense vegetation along ponds or marshes and adjacent scrub and open upland habitat for temperature regulation and cover. To escape potential predators, it often retreats to dense vegetation, nearby holes or across water to reach vegetative cover. Females produce between 12 and 24 live young (neonates) in July or August. Those neonates that survive through the first winter may disperse following emergence in the spring. A recent demographic study in coastal San Mateo County indicated a stable population at a localized area managed currently for conservation purposes.²⁴ Much of the range of the San Francisco garter snake lies within a heavily urbanized area, and alteration and isolation of habitats has been identified as the primary threats to the subspecies.^{25, 26} Agricultural development, poorly managed cattle grazing, and illegal collecting have also been implicated in its decline.

The San Francisco garter snake is listed under the federal and California Endangered Species Acts. Like other listed species, the San Francisco garter snake may not be taken or possessed without permits from the United States Fish and Wildlife Service (USFWS) and CDFG. Such permits are referred to as “incidental take permits.” With these permits, the “take” of most endangered or

²³ Larsen, S. S., 1994. Life History Aspects of the San Francisco Garter Snake at the Millbrae Habitat Site. Master's Thesis, California State University, Hayward.

²⁴ Halstead, B.J., et. al., 2011. Demography of the San Francisco garter snake in coastal San Mateo County, California. *Journal of Fish and Wildlife Management*, 2 (1): 41-48.

²⁵ Brode, J., 1990. Five-year Status Report. San Francisco Garter Snake. Endangered Species Project. Inland Fisheries Division.

²⁶ U.S. Fish and Wildlife Service, 2006. Sacramento Field Office. San Francisco Garter Snake (*Thamnophis sirtalis tetrataenia*), 5-year review: summary and evaluation. September.

threatened species that is incidental to otherwise lawful development projects is authorized. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

In addition to federal and State listing, the San Francisco garter snake is also designated as a “Fully Protected” species under Section 5050 of the Fish and Game Code. Fully protected status adds another level of protection to such species. For fully protected species, “incidental take” permits are only allowed for projects that are part of Recovery Actions, which this project is not. Also, incidental take is not allowed for fully protected species as part of otherwise lawful development projects, such as the proposed project. Therefore, projects such as the Mindego Gateway project that has the potential to impact San Francisco garter snake must be designed to fully avoid take of this fully protected species.

Critical habitat for the San Francisco garter snake has not been designated; therefore, no adverse modification to critical habitat would result from the construction of this project.

According to published data and informal records maintained by District staff, there have been at least 36 San Francisco garter snake sightings since 2009 within approximately 900 feet of aquatic habitat in water bodies located within the Mindego area, namely Mindego, Knuedler, and Upper Lakes, 35 of which were within 500 feet of aquatic habitat.²⁷ An additional occurrence was reported along Mindego Ridge Trail approximately 3,500 feet southeast of Upper Lake.²⁸ Four of the 35 occurrences were on a road or trail. San Francisco garter snakes frequently bask on roads and trails where they risk the possibility of being run over by bicycles and/or vehicles. The continuous contact of tires to the road or trail surface and higher rate of speed of vehicles and bicycles in contrast to hikers or equestrians could increase the probability of direct mortality to San Francisco garter snakes. There is documented and anecdotal evidence that underscores the potential for harm or mortality to snakes by vehicles and mountain bikes. In cases reported by the USFWS, for example, San Francisco garter snakes were run over by a bicycle near Crystal Spring Reservoir,²⁹ and a vehicle near the San Francisco airport.³⁰

Vehicle access within 2,000 feet of Mindego Lake and other aquatic habitat occupied by San Francisco garter snake has been limited to District patrols and to authorized persons who have been issued a permit by the District, all of whom must follow a 5-mph speed limit (other than emergency response). Due to the increased probability that bicycle use would result in take of San Francisco garter snake, use of the Mindego Hill Trail would be limited to hikers and equestrians only. Furthermore, due an observed occurrence of San Francisco garter snake on the Mindego Ridge Trail, the westernmost segment of this trail (approximately 1 mile), would also be closed to bicycles and vehicle speeds limited to 5 mph as part of the proposed project. A gate would be installed across the existing Mindego Ridge Trail approximately 0.5-mile from its intersection with Alpine Road, and

²⁷ Condor Country Consulting, Inc., 2009. Mindego Hill Region of Russian Ridge OSP Herptofauna Survey Report. Martinez, CA. July 31.

²⁸ Midpeninsula Regional Open Space District, 2011. Unpublished Geographic Information Systems mapping. Data available upon request.

²⁹ U.S. Fish and Wildlife Service, 2006. op. cit. Page 7.

³⁰ San Francisco Chronicle, 2002. *BART-to-SFO work delayed/squashed endangered garter snake quashes progress on extension*. Michael Cabanatuan. May 11.

bicycle storage racks or lockers would be provided, to ensure compliance of the bicycle closure. However, even with these limitations on trail use, the potential still exists for San Francisco garter snakes to be adversely affected by the project, such as construction-phase impacts to dispersing snakes. Given the above, implementation of the following three-part mitigation measure is required to ensure that potential impacts to San Francisco garter snake are avoided. Potential impacts to California red-legged frog and western pond turtle would also be avoided with implementation of this measure (see discussion in the following sections).

Mitigation Measure BIO-2a: To ensure compliance with trail use restrictions, appropriate signage shall be installed that clearly designates: 1) the trail sections that will be closed to bicycle use and 2) vehicle speed limits. Interpretive signs shall also be installed to educate users about the biological sensitivity of the Mindego area and the District's protection and enhancement measures.

Mitigation Measure BIO-2b: On the first day of construction and prior to the start of any ground clearing, all workers shall participate environmental education training session given by a qualified biologist at the project site. A signature sheet shall be maintained to ensure all personnel receive training. The education training shall include a description of the San Francisco garter snake, California red-legged frog, and western pond turtle and their habitat, the general provisions of the Endangered Species Act, the necessity of adhering to the Act to avoid penalty (for San Francisco garter snake and California red-legged frog only), and measures implemented to avoid affecting San Francisco garter snake, California red-legged frog, and western pond turtle specific to the project and the work boundaries of the project.

Mitigation Measure BIO-2c: Prior to construction of the Mindego Hill Trail, preconstruction surveys shall be conducted by federal and state permitted biologists in accordance with their permits. The work areas shall be clearly delineated in the field using construction fencing, stakes, or flags. The preconstruction surveys shall consist of a daytime visual survey for San Francisco garter snake, California red-legged frog, and western pond turtles, within one week of construction. If grading is scheduled between May 15 and October 15, the inspection shall also include a search for evidence of nesting western pond turtles. After initial ground disturbance, the permitted biologist shall conduct weekly inspections of the site until the project is complete.

During initial ground-disturbing activities in all project work areas, including the Mindego Hill Trail, Ancient Oaks Connector Trail, staging area, and commemorative site, a District staff-person who has completed the survey training for the California red-legged frog and is familiar with the identification, life history, habitat and behavior of the San Francisco garter snake will survey the impact area prior to starting work, and will be present throughout the ground disturbance period.

If San Francisco garter snakes or California red-legged frogs are observed on the project site at any time, the District shall contact CDFG and USFWS for further guidance. All work shall cease on the project site until the animal moves freely out of the construction zone or the District receives guidance from the resource agencies. If western pond turtles are observed within the project site, a qualified biologist and/or a District staff person who has received the environmental training shall relocate the turtle to a nearby area of suitable habitat. If a western

pond turtle nest is discovered within the project site, all work within 50 feet of the nest shall cease and CDFG shall be contacted for guidance.

The District shall prepare a monitoring report detailing the above actions and findings for submittal to CDFG within 60 days following completion of the project.

California Red-Legged Frog. The California red-legged frog requires still or slow-moving water during the breeding season, where it deposits large egg masses, usually attached to submerged or emergent vegetation. Breeding typically occurs between December and April, depending on annual environmental conditions and locality. Following metamorphosis between July and September, post-metamorphic juveniles (metamorphs) generally do not travel far from aquatic habitats, although they will disperse from a drying pond. Movements of metamorphs and adults generally occur with the first rains of the weather-year, in response to receding water, or following the breeding season. Radio-telemetry data indicates that individuals generally engage in straight-line movements irrespective of riparian corridors and can move up to two miles. California red-legged frogs utilize a variety of water sources during the non-breeding season, and females are more likely than males to depart from perennial ponds shortly after depositing eggs. They may take refuge in small mammal burrows, leaf litter or other moist areas during periods of inactivity or whenever it is necessary to avoid desiccation. California red-legged frog is listed as Threatened under the Federal Endangered Species Act and is a California Species of Special Concern.

California red-legged frog is known to occur at Mindego Lake.³¹ While no suitable aquatic habitat is present within the project area, frogs could temporarily use the various vegetation communities within the study area during movements between Mindego Lake and ponds and foraging and sheltering habitat in the surrounding region, including east of Alpine Road. The project site is within the mapped boundary of critical habitat (SNM-2 Unit) for the California red-legged frog.³² Implementation of Mitigation measures incorporated into the project (see Mitigation Measure BIO-2a-c) would ensure that impacts to this and other special-status amphibians and reptiles are avoided.

Western Pond Turtles. Western pond turtles occupy permanent and intermittent ponds and creeks.³³ An important element of suitable habitat for this species is the presence of upland nesting and over-wintering/estivation areas adjacent to aquatic habitat. These turtles have been documented to move 26 to 981 feet (average 163 feet) overland to terrestrial sites.³⁴ Western pond turtles are considered a California Species of Special Concern because of its decline throughout much of its range due to extensive conversion of wetland habitat and adjacent upland nesting areas.³⁵ Western pond turtles were observed outside the project area approximately 1,500 feet west of the proposed Mindego Hill Trail at Mindego Lake during September 2011 field surveys and during a previous biological

³¹ Biosearch Associates, 2011 and Condor Country Consulting, Inc., 2009, op. cit.

³² U.S. Fish and Wildlife Service, 2010. Department of the Interior. *Endangered and Threatened Wildlife and Plants*. Revised Designation of Critical Habitat for the California Red-Legged Frog. ACTION: Final rule. (Volume 75, Number 51)50 CFR Part 17. March 17.

³³ Ernst, C.H. and J.E. Lovich, 2009. *Turtles of the United States and Canada: Second Edition*. Johns Hopkins University Press, Baltimore, Maryland.

³⁴ Ibid.

³⁵ Stebbins, R. C. 2003. *A field guide to western reptiles and amphibians* (3rd edition). Houghton Mifflin Co., Boston MA.

survey.³⁶ The project area does not support suitable aquatic habitat for the species, but non-native grassland habitat could provide nesting habitat. Potential western pond turtle aquatic habitat is also present offsite at other ponds located in the Preserve.

Although the project site itself (i.e., staging area/commemorative site and trail alignments) does not contain suitable aquatic habitat for Western pond turtle, this species could occur within the project site during dispersal movements between Mindego Lake, ponds and other aquatic habitat in the surrounding area. Non-native grassland also could serve as nesting habitat. Implementation of Mitigation measures incorporated into the project (see Mitigation Measure BIO-2a-c) would ensure that impacts to this and other special-status amphibians and reptiles are avoided.

Golden Eagle and White-Tailed Kite (and other Nesting Birds). The golden eagle and white-tailed kite are also fully protected species under the CDFG Code. The proposed project is unlikely to result in direct harm to golden eagle or white-tailed kites, but if an active nest of these species were located near the construction area, this could result in “take.” Nesting habitat within trees, shrubs, and grassland on and adjacent to the project site is present for both the golden eagle and white tailed kites, in addition to long-eared owl, Vaux’s swift, Allen’s hummingbird, Nuttall’s woodpecker, olive-sided flycatcher, oak titmouse, grasshopper sparrow, Bryant’s savannah sparrow and other native birds. Although these are not special-status species, the active nests of these species and other native birds are protected under the Migratory Bird Treaty Act and the CDFG Code. Vegetation removal, as well as noise and other disturbance during construction, could adversely impact nesting bird species, if present, potentially resulting in nest destruction or abandonment. Implementation of the following mitigation measure would ensure that potential impacts to special-status golden eagles and white-tailed kites as well as nesting bird species protected under the Migratory Bird Treaty Act and Fish and Game Code are avoided.

Mitigation Measure BIO-3: Vegetation removal shall be limited to the minimum necessary to construct the project. If feasible, project construction shall take place outside of the breeding bird season (the breeding bird season is generally February 15 to August 15). If work must be conducted during the breeding season, a qualified biologist shall conduct a pre-construction nesting bird survey throughout areas of suitable habitat located within 300 feet of the project site and no more than 30 days prior to the initiation of site preparation, construction activity, tree trimming, or vegetation removal. If active bird nests are observed, a buffer zone shall be established around the nest to protect nesting adults and their young from construction disturbance. Buffer zones shall have a 300-foot radius for raptors (such as Golden Eagle and White-tailed kite), 100-foot radius for a passerine Species of Special Concern, and 25 to 50-feet (depending on species and nest location) for common bird species. The radius of the buffer zone shall be centered on the nest or nest tree/shrub. Smaller buffer zones may be established if it is determined by a qualified biologist in consultation with CDFG that the site conditions and/or species sensitivity to disturbance warrant a reduction in the buffer size. Additional monitoring may be required for buffer zones that are smaller than the typical size. Buffer zones shall be clearly delineated with stakes and flagging or construction fencing. No construction, material storage, staging, parking, or entrance shall be allowed in the buffer zone with the exception of biological monitors monitoring the status of the nests. The buffer zone shall be

³⁶ Condor Country Consulting, Inc., 2009, op. cit.

maintained until the young are fledged and foraging independently, as determined by a qualified biologist.

San Francisco Dusky-Footed Woodrat. At least two San Francisco dusky-footed woodrat nests were observed at the project site in the vicinity of the proposed Ancient Oaks Connector Trail. Trail construction could result in the removal or disturbance of woodrat nests if these are located along trail alignments. Therefore, implementation of the following mitigation measure would reduce potential impacts to the San Francisco dusky-footed woodrat to a less-than-significant level.

Mitigation Measure BIO-4: No more than 30 days prior to the initiation of site preparation, construction activity, vegetation removal, or tree trimming, a qualified biologist shall inspect the proposed trail alignment, staging area, and/or access road and adjacent areas within 50 feet for woodrat nests. An exclusion zone shall be erected around any potentially affected woodrat nest using a temporary fence that does not inhibit the natural movements of wildlife (such as steel T-posts and a single strand of yellow rope or similar materials). If feasible, the trail shall be relocated to avoid impacting woodrat nests, even if avoidance is by only a few feet. If woodrat nests cannot be avoided during trail construction, woodrats shall be relocated by live-trapping and relocated to nearby temporary shelters as a release site. An inverted half wine barrel containing woody debris from the impacted nest shall provide the temporary shelter. The plan to live trap and relocate woodrats shall be approved by CDFG.

American Badger. American badger activity and a likely occupied burrow were observed along a portion of the proposed Ancient Oaks Connector Trail. Trail construction could result in the removal or disturbance of badger dens that may be located along the trail alignment. Therefore, implementation of the following mitigation measure would reduce potential impacts to the American badger to a less-than-significant level.

Mitigation Measure BIO-5: No more than 10 days prior to the initiation of site preparation, construction activity, vegetation removal, or tree trimming, a qualified biologist shall inspect the proposed trail alignment, staging area, and/or access road and adjacent areas within 25 feet for badger dens. If an active den is located, a qualified biologist shall determine if the burrow is occupied by using either a burrow camera, track plates, or direct observations to determine the contents of the burrow. If the den is determined to be an active natal den, work shall cease within 100 feet of the burrow and either the trail moved to avoid impacts to the den if feasible or have a qualified biologist monitor the burrow until the young have dispersed. If the burrow is occupied by an adult badger without young the burrow shall be hand-excavated to allow the badger to escape. If the burrow is not occupied by a badger, the burrow shall be sealed with a hand shovel.

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

Blue wild rye grassland occurs adjacent to and northwest of the commemorative site. This grassland is dominated by blue wild rye and other native grasses and forbs, including purple needlegrass, soap

plant, Kellogg's yampah, and yarrow. Blue wild rye grassland has a state rank of S3,³⁷ and is considered a sensitive natural community by CDFG. Ground disturbance could result in direct impacts to this community as well as indirect impacts by facilitating colonization of yellow-star thistle and other invasive species. Therefore, implementation of the following mitigation measure would reduce potential impacts to this sensitive natural community to a less-than-significant level.

Mitigation Measure BIO-6: Prior to construction, fencing shall be installed around blue wild rye grassland to prevent encroachment of equipment or construction personnel into sensitive habitat. Invasive, non-native plant species that occur adjacent to the work area shall be removed or controlled to prevent encroachment into adjacent habitats.

- c) *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? (No Impact)*

Six ephemeral drainage channels are present along the proposed Ancient Oaks Connector Trail.³⁸ The channels are tributaries to Mindego Creek, which drains into Alpine Creek, San Gregorio Creek, and eventually the Pacific Ocean. The channels occur in mixed evergreen forest, coyote brush scrub, and non-native grassland habitats. These channels were dry at the time of the field visits and lacked wetland or riparian vegetation, but had a bed and bank and therefore could be considered jurisdictional by the U.S. Army Corps of Engineers (USACE), CDFG, and/or the Regional Water Quality Control Board. Placement of fill material or other work within the jurisdiction of the USACE, the CDFG, and/or the Regional Water Quality Control Board would require a permit and mitigation. The District will construct clearspan bridges or puncheons to cross drainages in order to avoid all impacts to the bed and banks of drainage channels. Therefore, the project will not create an adverse impact to federally protected wetlands, and no permits and or mitigation are required for channel crossings.

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

The following discusses potential impacts to newt movement corridors and roosting bat habitat in the project area. Potential impacts to nesting birds protected by the Migratory Bird Treaty Act and Fish and Game Code are detailed in Section IV.a. As discussed in that section, potential impacts to nesting birds would be reduced to a less-than-significant level within implementation of Mitigation Measure BIO-3, which also applies to golden eagles and white-tailed kites, two special-status bird species.

Newt Movement Corridor. A newt movement corridor (either *Taricha torosa* or *T. granulosa*, or both) has been documented in the vicinity of the commemorative site/staging area along an approximately 200-foot section of Alpine Road just north of the proposed staging area location. Newts are subject to mortality as they move across Alpine Road between upland habitat and breeding locations.

³⁷ Alliances with State ranks of S1-S3 are considered to be highly imperiled. The question mark denotes an inexact numeric rank due to insufficient samples over the full expected range of the type, but existing information points to this rank (CDFG 2010).

³⁸ Based on a reconnaissance field visits only. A formal delineation was not conducted on the project site, and all waters are referred to as "potential" until verified or disclaimed by regulatory agencies.

Newts pass through open, grassy areas and over-summer in coastal scrub and woodlands. California newts (*T. torosa*) have been observed in Mindego Creek and they breed in Mindego Lake located about 2 miles to the northwest. Rough-skinned newts (*T. granulosa*) breed in Kneudler Lake situated approximately 2.5 miles to the west. Closer potential breeding ponds are present east of Alpine Road within approximately 0.5 miles. Most mass newt migrations occur at night during rain events. The staging area would be gated at sundown such that it may not be used at night when the highest number of newts may migrate. The conversion of non-native grassland to the commemorative site/staging area could impede an established newt movement corridor. However, the project has been designed with minimal barriers to above-ground movements. Curbs and parking bumpers are designed to be raised above the ground sufficiently to facilitate ground-level newt movement and gutters and drainage ditches are designed with rounded edges to allow newts to climb them. In addition, the project is designed with a limited amount of native landscaping to encourage newts to promptly pass through the staging area to reach the surrounding vegetative cover. Education information would be included on the staging area signboard to instruct visitors to avoid newts. Due to these design elements, the project is not expected to significant impact the newt movement corridor.

Bats. Potential roosting habitat for pallid bats and other bat species occurs in mature trees and snags on the project site. Roost destruction, or work in close proximity to roost sites, could result in adverse impacts to special-status bat species. Of primary concern in this regard are maternity roosts of pallid bats. However, implementation of the following mitigation measure would reduce potential impacts to these species to a less-than-significant level.

Mitigation Measure BIO-7: If mature trees or snags are removed during the bat breeding season (April 1 through August 31), a qualified bat biologist shall inspect trees for potential roost sites. If no potential roost sites are found, no additional mitigation would be necessary. If bat roosts are found, direct disturbance to the roost shall be avoided during the breeding season. If a potentially suitable roost tree is removed in the non-breeding season, a qualified biologist shall inspect the tree prior to removal to ensure that bats are not occupying the roost. If bats are determined to be present, tree removal shall be suspended until the bats have left. Netting can be placed over the entrance of a roost site to allow bats to emerge but not return. Partially exposing a potential roost site (such as removing a tree limb or bark) after the bats have left can also make the roosts unattractive to bats so they will not return. Exclusion or partial exposure of a roost before tree removal shall be monitored by a qualified biologist.

- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (No Impact)*

San Mateo County's Significant Tree Ordinance³⁹ requires a permit for the removal of Significant Trees on private property only. Because the project site is located on public land, tree removal associated with the proposed project would not be subject to the County's Significant Tree Ordinance. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources.

³⁹ San Mateo, County of, 2011. Planning and Building Division. *The Significant Tree Ordinance of San Mateo County* (Part Three of Division VIII of the San Mateo County Ordinance Code).

- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan? (No Impact)*

The project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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V. CULTURAL RESOURCES. Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The following discussion is based on the *Archaeological Survey Report*⁴⁰ prepared for the staging area and commemorative site, the *Archaeological Survey Report*⁴¹ prepared for the trail elements of the project, and the *Archaeological Investigations at CA-SMA-396 Report*⁴² prepared for significant resource findings at the staging area site. Due to the identification of the location and extent of significant cultural resources within the project site, these documents are not included with this report and are confidential.

- a) *Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? (Potentially Significant Unless Mitigation Incorporated)*

No above grade structures (historic or otherwise) are present within the immediate project site and vicinity. Literature review and a records search indicate that no known previously recorded Native American or historic cultural resources are located within 1/5 of a mile of the project site (although there are some sites located within 1 mile). However, past surveys in the area have indicated that many mortars have been found in the area from time to time, just west of old headquarters of Mendico Ranch. After mission secularization in 1833, much of San Mateo County was divided into

⁴⁰ Hylkema, Mark, 2011. *Archaeological Survey Report, Silva Property/Honor Site, Russian Ridge Open Space Preserve, San Mateo County, California*. May.

⁴¹ Hylkema, Mark, 2011. *Archaeological Survey Report, Ancient Oaks and Mindego Hill Trail Alignments, Russian Ridge Open Space Preserve, San Mateo County, California*. November.

⁴² Hylkema, Mark, 2012. *Archaeological Investigations at CA-SMA-396, Silva Site, Russian Ridge Open Space Preserve, San Mateo County, California*. November.

Spanish land grants for ranching. The first non-native settler in the area was Juan Mindecao for whom the site was named. He grazed cattle on the property from 1860 into the 1880s. Remnants from this historic ranch site may exist in the vicinity of the proposed Mindego Hill Trail, although they have not been identified to date.⁴³ In addition, portions of the proposed Ancient Oaks Connector Trail follow a former unpaved road that leads to the ruins of a former home site. The site was probably a tiny cabin, and a scatter of rusted metal, glass and other debris indicate that it was not very old (or historic).

No significant historical materials were observed or are known to occur within the project site, much of which is highly disturbed. Therefore, the potential for historical resources to be uncovered at the site is small and potential impacts to historical resources would be less than significant. In the event that archaeological finds, which may qualify as historic resources under CEQA, are uncovered at the site, implementation of Mitigation Measure CULT-1 (see Section V.b, below) would reduce potential impacts to historic resources to less than significant.

b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (Potentially Significant Unless Mitigation Incorporated)*

The proposed project would construct a staging area and parking lot in a previously disturbed and graded knoll immediately adjacent to Alpine Road. The commemorative site would be located in a grassy meadow area on the shoulder of a high, rounded hill that is centrally located within the juncture of three ridge systems. The staging area and commemorative site are situated at the head of one of these ridges – the one that leads westwards towards Mindego Hill. Ridge lines with open grassy meadows like that found at the project site typically exhibit surface indications of cultural sites and other features, as they are more prone to erosion rather than the buildup of additional surface sediments. Locally, in prehistoric times, ridge lines served as travel corridors between coastal populations and interior valley/bay shore people. Although some previously recorded and unrecorded archaeological resource sites exist within 1 mile of the project site, none have been recorded within 1/5 of a mile. However, unrecorded sites are known to be present within the project vicinity. Specifically, distributions of lithic scatters⁴⁴ of chipped stone debitage⁴⁵ are known to occur throughout the region, including several locations within the Preserve and at nearby Mindego Hill. Several bedrock milling stations⁴⁶ also occur within the area.

Although ground surface visibility at the site is poor, a visual survey revealed at least nine pieces of chipped stone debitage. In addition, subsurface excavations of the staging area and commemorative site recovered chipped stone waste flakes from stone tool use and maintenance at the site. The greatest concentration of finds were encountered near Alpine Road and the proposed Ancient Oaks Connector trailhead. In addition, a potential rock feature was identified in the area of the commemorative site; however, further study determined that this feature is more likely a natural geological

⁴³ LSA Associates, Inc., 2002. *Resource Assessment, Mindego Hill (True Ranch)*. December 27.

⁴⁴ Lithic scatter is a surface scatter of cultural artifacts and debris that consists entirely of lithic (i.e., stone) tools and chipped stone debris.

⁴⁵ The term debitage refers to all the waste material produced during lithic reduction and the production of chipped stone tools.

⁴⁶ An outcrop of bedrock containing one or more mortar cups, milling slicks (bedrock metates"), or other features related to food grinding or crushing.

phenomenon rather than a feature attributed to cultural activities.⁴⁷ No significant archaeological features or sites were identified within the proposed trail routes for the Ancient Oaks Connector, or the Mindego Hill Trail alignments. Therefore, it is concluded that the development of these trails will not adversely affect archaeological resources. Given the sparse distribution of the artifacts in the vicinity of the proposed staging area and the disturbed nature of the site, the chances of finding an intact archaeological deposit in this area are small, and further archaeological testing of the site is not warranted. However, all initial ground disturbance activities during driveway construction should be monitored by a qualified archaeological professional for the unlikely event that intact significant archaeological resources are discovered in this area.

Since ground disturbance associated with the construction of the proposed parking lot would be located an area with the possibility of containing unknown cultural resources, the project may accidentally disturb or unearth archaeological resources. Archeological resources include buried features such as stone or adobe foundations or walls, wooden remains with square nails, other historic artifacts, chert or obsidian flakes, projectile points, mortars and pestles, dark friable soil containing shell and bone dietary debris, and heat-affected rock. Implementation of the following measures would reduce potential impacts to cultural and historical resources in the proposed driveway area, including buried and unknown archeological, paleontological, and human remains, to a less-than-significant level.

Mitigation Measure CULT-1a: Due to the observation of chipped stone artifacts within the vicinity of the proposed parking/staging area, all initial ground disturbance activities during construction of the parking/staging area shall be monitored by a qualified archaeological professional. If cultural and/or historical resources are encountered during construction, the measures outlined in CULT-1b shall be followed.

Mitigation Measure CULT-1b: Implementation of the following measures would reduce potential impacts to cultural and historical resources, including buried and unknown archeological and paleontological resources to a less-than significant level:

- If any commonly recognized sensitive cultural resource such as human formed artifacts, including projectile points, grinding stones, bowls, baskets, historic bottles, cans, or trash deposits are encountered during project construction, every reasonable effort shall be made to avoid the resource. Work shall stop within 100 feet of the object(s) and the contractor shall contact the District. No work shall resume within 100 feet until a qualified cultural and/or historical resources expert can assess the significance of the find.
- A reasonable effort shall be made by the District to avoid or minimize harm to the discovery until significance is determined and an appropriate treatment can be identified and implemented. Methods to protect finds include fencing and covering with protective material such as culturally sterile soil or plywood.
- If vandalism is a threat, 24-hour security shall be provided.
- Construction outside of the find location can continue during the significance evaluation period and while mitigation for cultural and/or historical resources is being carried out,

⁴⁷ Hylkema, Mark, 2012. *Archaeological Investigations at CA-SMA-396, Silva Site, Russian Ridge Open Space Preserve, San Mateo County, California*. November.

only if a qualified cultural and/or historical resources expert is present onsite monitoring any additional subsurface excavations within 100 feet of the find.

- If a resource cannot be avoided, a qualified cultural and/or historical resources expert shall develop an appropriate Archaeological or Paleontological Action Plan for treatment to minimize or mitigate the adverse effects. The District shall not proceed with reconstruction activities within 100 feet of the find until the Action Plan has been reviewed and approved by the District General Manager.
- Findings will be detailed in a professional report in accordance with current professional standards. Any non-grave associated artifacts will be curated with an appropriate repository.
- Project documents shall include a requirement that project personnel shall not collect cultural and/or historical resources encountered during construction. This measure is consistent with federal guideline 36 CFR 800.13(a) for invoking unanticipated discoveries.

c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Potentially Significant Unless Mitigation Incorporated)*

Although there is no documentation that suggests paleontological resources are present within or in the vicinity of the project site, there is a possibility that construction activities could uncover paleontological resources beneath the surface. Implementation of Mitigation Measures CULT-1a and CULT-1b would reduce potential impacts to paleontological resources to less than significant.

d) *Disturb any human remains, including those interred outside of formal cemeteries? (Potentially Significant Unless Mitigation Incorporated)*

The potential to uncover Native American human remains exists in locations throughout California, and the Preserve is known to be sensitive for Native American cultural resources. Although not anticipated, human remains could be identified during site-preparations and grading activities, particularly within the undisturbed areas of the site, resulting in a significant impact to Native American cultural resources. Implementation of the following mitigation measure would reduce potential adverse impacts to human remains to a less-than-significant level.

Mitigation Measure CULT-2: If human remains are encountered, all work within 100 feet of the remains shall cease immediately and the contractor shall contact the District. The District shall contact the San Mateo County Coroner to evaluate the remains, and follow the procedures and protocols set forth in §15064.5(e) of the *CEQA Guidelines*. No further disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has made a determination of origin and disposition, which shall be made within two working days from the time the Coroner is notified of the discovery, pursuant to State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) within 24 hours, which will determine and notify the Most Likely Descendant (MLD). The MLD may recommend within 48 hours of their notification by the NAHC the means of treating, with appropriate dignity, the human remains and grave goods. In the event of difficulty locating a MLD or failure of the MLD to make a timely recommendation,

the human remains and grave goods shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

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

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

The following includes a discussion of the project's potential to expose people or structures to potential adverse effects involving fault rupture, seismic ground shaking, liquefaction, and landslides.

Fault Rupture. No portion of the project site is within an Alquist-Priolo Earthquake Fault Zone (A-PEFZ),⁴⁸ and no active faults have been mapped on the project site by the United States Geological Survey (USGS) or the California Geological Survey (CGS).⁴⁹ Fault rupture of the surface typically occurs along existing faults that have ruptured the surface in the past. Since faults with known surface rupture have been mapped in California, and none are known to occur at the project site, the potential for impacts to the proposed project due to fault rupture is less than significant.

Strong Seismic Ground Shaking. Strong ground shaking is likely to occur within the life of the project as a result of future earthquakes. The closest known active fault to the project site is the San Andreas Fault, which has been mapped in an A-PEFZ approximately 1.5 miles east of the site. Several other regional faults have the potential to generate ground shaking at the project site. Based on information from the Working Group on California Earthquake Probabilities report and the USGS, there is a 62 percent probability of a 6.7 magnitude or greater earthquake on a Bay Area Fault before 2032, including a 21 percent chance on the Bay Area portion of the San Andreas fault system.⁵⁰ The Association of Bay Area Governments (ABAG) has classified the Modified Mercalli Intensity Shaking Severity Level of ground shaking in the proposed project vicinity due to an earthquake on the Peninsula segment of the San Andreas Fault System as "VIII-Very Strong."⁵¹ This intensity of shaking could result in considerable damage to structures, including masonry buildings, chimneys, columns, monuments, and walls. Ground shaking from an earthquake of the magnitude likely to occur in the project vicinity could cause damage to the trails, parking lot, and other improvements proposed for the project, causing property damage and exposing trail users and District workers to potential harm.

The geotechnical investigation prepared for development of the staging area and commemorative site evaluated potential seismic shaking hazards for the associated improvements.⁵² Table 1 of the report includes seismic design parameters for construction that would ensure that the project improvements

⁴⁸ Department of Conservation, 2010. California Geological Survey – Alquist-Priolo Fault Zones in Electronic Format. Website: www.quake.ca.gov/gmaps/ap/ap_maps.htm. Accessed October 31, 2011.

⁴⁹ United States Geologic Survey and California Geological Survey, 2006. Quaternary fault and fold database for the United States. Website: earthquakes.usgs.gov/regional/qfaults. Accessed October 31, 2011.

⁵⁰ Association of Bay Area Governments, 2010. *On Shaky Ground*, 2003 documentation with mapping updated in 2010.

⁵¹ Association of Bay Area Governments, 2003. Earthquake Shaking Hazard Map, Peninsula Segment of the San Andreas Fault System. Website: quake.abag.ca.gov/shaking/maps/. Accessed October 31, 2011.

⁵² Butano Geotechnical Engineering, 2011. *Geotechnical Investigation Design Phase For Mindego Gateway Project*, San Mateo County, California. November.

comply with the 2010 California Building Code, which has been adopted by the County of San Mateo.⁵³ Given that the recommendations of the geotechnical investigation have been incorporated into project design, no additional mitigation for seismic ground shaking is required and potential impacts associated with seismic ground shaking would be less than significant. In addition, the Mindego Hill Trail alignment was designed by District staff and the District's consulting engineering geologist⁵⁴ to avoid potential geological hazards.

Liquefaction. Liquefaction of soils can occur when ground shaking causes saturated soils to lose strength due to an increase in pore pressure.⁵⁵ Liquefaction susceptibility depends on the engineering properties of the sediments below individual structures. ABAG has identified the liquefaction hazard at the project site from a significant earthquake (a 7.2 magnitude earthquake on the Peninsula section of the San Andreas Fault) as "very low." The official seismic hazard map for this area prepared by the CGS indicates that the site is not within a mapped zone for which an evaluation of soil liquefaction is required.⁵⁶ Therefore, the potential for hazards associated with liquefaction at the site would be less than significant.

Landslides. Slope instability can result in either slow slumping earth movements or rapid landslide events and are often induced by precipitation or seismic events. The project site is in an area of rugged terrain and located within a State-mapped Zone of Required Investigation for seismically-induced landsliding.⁵⁷ These zones are characterized by steep slopes composed of soils that may fail when shaken by an earthquake. Landslide distribution maps compiled by ABAG also indicate that the trail portions of the project site are located in areas that may be subject to precipitation-induced landslides.⁵⁸

The geotechnical report evaluated collateral seismic hazards, including the potential for seismically induced landsliding to occur. Due to the nature of the proposed project improvements, the report determined that no mitigation would be necessary to reduce potential impacts associated with landsliding.⁵⁹ In consultation with the District's engineering geologist and consistent with standard District design practices,⁶⁰ retaining walls may be installed along certain segments of the trail alignments to further ensure that impacts associated with potential landslides are reduced to a less-than-significant level.

b) Result in substantial soil erosion or the loss of topsoil? (Less-Than-Significant Impact)

⁵³ Ibid.

⁵⁴ Best, Timothy C., 2010, op. cit.

⁵⁵ Association of Bay Area Governments, 2003. Earthquake Liquefaction Hazard Maps, Peninsula Section of the San Andreas Fault System. Website: www.abag.ca.gov/cgi-bin/pickmapliq.pl. Accessed October 31, 2011.

⁵⁶ California Geological Survey, 2005. State of California Seismic, Mindego Hill Quadrangle. August 11.

⁵⁷ Ibid.

⁵⁸ Association of Bay Area Governments, 2011. Landslide Distribution Map. Website: gis.abag.ca.gov/website/LandslideDistribution. Accessed October 31.

⁵⁹ Butano Geotechnical Engineering, 2011, op cit.

⁶⁰ Midpeninsula Regional Open Space District, 2008. Draft Road and Trail Typical Design Specifications. May 4.

Construction of the staging area and commemorative site would require more than 1 acre of grading and would incorporate Best Management Practices (BMPs) for erosion control as part of a required Stormwater Pollution Prevention Plan (SWPPP). Trail construction will incorporate erosion control guidelines adopted as part of an existing Memorandum of Understanding with the Regional Water Quality Control Board (Water Board)⁶¹ and will be designed and sited to minimize use-related soil erosion. Moreover, all work will be conducted during the dry season. Implementation of these standard measures would ensure that potential impacts associated with soil erosion would be less than significant. Please also refer to Section IX.a.

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

The project site is located in a rugged, hilly area with elevations ranging from approximately 1,800 to 2,400 feet relative to the National Geodetic Vertical Datum (NGVD), with the highest elevations in the eastern part of the site.⁶² Soils at and adjacent to the project site, as mapped by the Natural Resource Conservation Service, include the following soil units:

- Laughlin-Sweeney loams, moderately steep, eroded
- Laughlin Sweeney loams, steep, eroded
- Laughlin-Sweeney loams, very steep, eroded
- Mindego stony clay loam, very steep
- Santa Lucia loam, sloping, eroded
- Santa Lucia loam, moderately steep, eroded
- Santa Lucia loam, very steep, eroded
- Sweeney clay loam, sloping, eroded
- Sweeny stony clay loam, steep, eroded
- Sweeney stony clay loam, very steep, eroded⁶³

In general, these soils consist of up to 50 inches of clay and rocky clay loams underlain by weathered bedrock.

The project geotechnical report included five soil borings at the project site: three along the ridge in the eastern portion of the site, and two in the western portion of the site. At each of the locations, sandstone bedrock was encountered at 2 to 2.5 feet below the ground surface. Surface soils in the eastern portion of the site consist of silty sands, while surface soils in the western portion of the site

⁶¹ Midpeninsula Regional Open Space District, 2007. Best Management Practices and Standard Operating Procedures for Routine Maintenance Activities in Water Courses.

⁶² United States Geologic Survey, 1997. Mindego Hill Quadrangle, 7.5-minute topographic map.

⁶³ Natural Resources Conservation Service, 2011. Web Soil Survey: websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed October 31.

include “fat” clays, which are clays with high plasticity, which may swell excessively and lose stability when becoming wet.

The project geotechnical report⁶⁴ included detailed recommendations for addressing potential impacts from unstable soils. At the proposed staging area, these recommendations included excavation to bedrock and use of engineered fill in areas where foundations are proposed. Proposed trails, designed in accordance with recommendations of a Certified Engineering Geologist, would be constructed with measures to minimize erosion and geologic failure. The narrow, 3- to 5-foot width of the trails would require only minimal cuts and fills with little impact to side slopes since the mass balance and hydrology of the slopes would not be substantially altered. Routine District patrols and maintenance of the trails and other portions of the project would also serve to minimize potential public exposure to hazardous geologic conditions, should any arise in the future. As the recommendations of the geotechnical report and engineering geologist have been incorporated into project design, no additional mitigation is required and potential impacts associated with the presence of unstable site soils would be less than significant.

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

Expansive soils expand and contract in response to changes in soil moisture, most notably when near surface soils change from saturated to a low moisture content condition, and back again. “Fat” clays, such as those encountered at the project site, have the potential to shrink and swell, which could cause damage to trails, parking lots, and other project improvements. The recommendations of the geotechnical report and a Certified Engineering Geologist, described above under Section VI.c, have been incorporated into the proposed project and would ensure that any potential impacts associated with the presence of expansive soils would be less than significant.

- e) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? (**No Impact**)*

The proposed restroom in the staging area would consist of a standard prefabricated structure with a vault. Waste from the vault would be periodically pumped out and removed by a small tanker truck. The proposed project does not include the installation or use of septic or on-site wastewater disposal systems.

⁶⁴ Butano Geotechnical Engineering, 2011. op cit.

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

Overview. Global climate change is the observed increase in the average temperature of the Earth’s atmosphere and oceans along with other significant changes in climate (such as precipitation or wind) that last for an extended period of time. The term “global climate change” is often used interchangeably with the term “global warming,” but “global climate change” is preferred to “global warming” because it helps convey that there are other changes to the global climate in addition to rising temperatures. Global surface temperatures have risen by 0.74° Celsius (C) ± 0.18°C between 1906 and 2005. The rate of warming over the last 50 years is almost double that over the last 100 years.⁶⁵ The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of carbon dioxide and other greenhouse gases (GHGs) are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.⁶⁶

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The following are the gases that are widely seen as the principal contributors to human-induced global climate change:⁶⁷

- Carbon dioxide (CO₂)
- Methane (CH₄)
- Nitrous Oxide (N₂O)
- Hydrofluorocarbons (HFCs)

⁶⁵ Intergovernmental Panel on Climate Change, 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.*

⁶⁶ The temperature on Earth is regulated by a system commonly known as the “greenhouse effect.” Just as the glass in a greenhouse lets heat from sunlight in and reduces the amount of heat that escapes, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

⁶⁷ The greenhouse gases listed are consistent with the definition in Assembly Bill (AB) 32 (Government Code 38505).

- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF₆)

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global climate change. While manmade GHGs include naturally-occurring GHGs such as CO₂, methane, and N₂O, some gases, such as HFCs, PFCs, and SF₆ are completely new to the atmosphere.

Certain other gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change over the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this analysis, the term “GHGs” will refer collectively to only the gases listed above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO₂ equivalents” (CO₂eq). For example, sulfur hexafluoride is 22,800 times more potent at contributing to global warming than carbon dioxide.

- a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less-Than-Significant Impact)*

GHG emissions associated with development of the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with vehicular traffic within the project site and its vicinity. Emissions estimates for the proposed project are discussed below and were calculated consistent with the methodology recommended in the BAAQMD’s CEQA Air Quality Guidelines, dated June 2011.⁶⁸

Construction Emissions. Construction activities at the project site would produce combustion emissions from various sources. During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

⁶⁸ Bay Area Air Quality Management District, 2011. *CEQA Air Quality Guidelines*. June.

The BAAQMD has not adopted significance criteria for construction period GHG emissions. However, the BAAQMD recommends that the lead agency quantify and disclose emissions that would occur during project construction in relation to meeting the AB 32 GHG reduction goals. AB 32, the California Global Warming Solutions Act, requires the reduction of statewide GHG emissions to 1990 levels by 2020. Construction CO₂ emissions were estimated using the SMAQMD's RoadMod model (see description of this model and its uses under Section III.b). The model worksheets, including inputs and assumptions are included in Appendix A. Model results indicate that the estimated total project construction emissions would be approximately 42.9 metric tons of CO₂. According to the California Air Resources Board, 2008 activities in the State of California produced 447,774,000 metric tons of CO₂.⁶⁹ Construction of the project would occur for short time over a 1 to 2 month period resulting in emissions that are only a fraction of total statewide emissions. Construction equipment exhaust is regulated by the State and any measures implemented as part of AB 32, such as the Low-Carbon Fuel Standard would be reflected in the construction equipment used for this project. Construction of the proposed project would not hinder the State from achieving GHG reduction goals established in AB 32. Therefore, as the BAAQMD has not adopted significance criteria for construction period GHG emissions and the project would not hinder the GHG reduction goals of AB 32, construction of the project would be considered less than significant. In addition, implementation of Mitigation Measure AIR-1 would further ensure that construction-period emissions would be less than significant.

Operational Emissions. Long-term operation, including traffic generated by the proposed project would generate GHG emissions. The URBEMIS v.9.2.4 and the BAAQMD's GHG model called BGM were used to determine the project's GHG emissions. BGM model output is included in Appendix A and project-related greenhouse gas emissions are shown in Table 4.

Table 4: Project Related Greenhouse Gas Emissions

Emission Source	Emissions (Metric Tons Per Year)				Percent of Total
	CO ₂	CH ₄	N ₂ O	CO ₂ e	
Transportation	--	--	--	99.99	96.23
Area Sources	0.23	0.0	0.0	0.23	0.22
Electricity	0.0	0.0	0.0	0.0	0.0
Natural Gas	0.0	0.0	0.0	0.0	0.0
Waste & Wastewater	3.59	0.0	0.0	3.6	3.46
Solid Waste	0.0	0.0	0.0	0.0	0.0
BAAQMD Threshold				1,100	
Total Annual Emissions	--	--	--	103.82	100.00
Exceed Threshold?	--	--	--	No	

Note: Column totals may vary slightly due to independent rounding of input data.

-- Estimates not available for this pollutant and/or category.

Source: LSA Associates, Inc., February 2012.

As shown in Table 4, based on the results of the BGM analysis, the project would generate 103.82 metric tons of CO₂e, which is below the BAAQMD criteria of 1,100 metric tons per year. Therefore, according to the BAAQMD's thresholds, operation of the proposed project is not anticipated to

⁶⁹ California Air Resources Board, 2010. *California GHG Inventory 2000-2008*. May.

generate GHG emissions that may have a significant impact on the environment and this impact is considered less than significant.

b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Less-Than-Significant Impact)*

Federal Regulations. The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the EPA has the authority to regulate CO₂ emissions under the federal Clean Air Act (CAA).

On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a final joint rule establishing a national program consisting of new standards for model year 2012 through 2016 light-duty vehicles that will reduce greenhouse gas emissions and improve fuel economy. The EPA GHG standards require these vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile in model year 2016, equivalent to 35.5 miles per gallon (mpg). These standards mark the first-ever national greenhouse gas emissions standards under the Clean Air Act. Additionally, the Heavy-Duty National Program was finalized in August 2011 by the EPA and the NHTSA and addresses medium- and heavy-duty vehicles.

State Regulations. In June 2005, then-Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals for the State of California: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The ARB has established the level of GHG emissions in 1990 at 427 million metric tons (MMT) of CO₂eq. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires ARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by ARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures.⁷⁰ Emission reductions that are projected to result from the recommended measures in the Scoping Plan are expected to total 174 MMT of CO₂eq, which would allow California to attain the emissions goal of 427 MMT of CO₂eq by 2020. The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The measures in the Scoping Plan will not be binding until after they are adopted through the normal rulemaking process and therefore are only recommendations at this time. The ARB rulemaking process includes preparation and release of each of the draft measures, and

⁷⁰ California Air Resources Board, 2008. *Climate Change Proposed Scoping Plan: a framework for change*. October.

public input through workshops and a public comment period, followed by an ARB Board hearing and rule adoption.

Local Efforts. The County of San Mateo is currently in the process of developing an Energy Efficiency Climate Action Plan (EECAP). The main goals of the plan are to reduce fossil fuel emissions; reduce the total energy use of eligible entities; improve energy efficiency in the transportation, building, and other appropriate sectors; and create and retain jobs. Additionally, the EECAP seeks to meet the BAAQMD’s requirements for a Qualified GHG Reduction Strategy.⁷¹

Project Impacts. The State-adopted Scoping Plan includes proposed GHG reductions from direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as cap-and-trade systems. The ARB approved the Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document on August 24, 2011.

The proposed project would result in the development of a staging area for limited parking and passive recreational uses within an existing open space area and would not directly be subject to any AB 32 requirements. The proposed project would thus not conflict with the State goal of reducing GHG emissions and would not conflict with the AB 32 Scoping Plan. Additionally, as a regional open space project with little operational emissions, the project would not be subject to regulation under the County’s EECAP. The project would be subject to all applicable permit and planning requirements in place or adopted by the County. Therefore, the proposed project would not conflict with plans or policies related to the reduction of greenhouse gas emissions, and this impact would be less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

⁷¹ San Mateo, County of, 2011. *Energy Efficiency Climate Action Plan*. Website: www.co.sanmateo.ca.us/planning/rechargesmc/index.html. Accessed: November 2.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located 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"/>
g) 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 checked="" type="checkbox"/>
h) 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"/>

Responses in this section rely on a field reconnaissance by a professional civil engineer with BASELINE Environmental Consulting performed on October 19, 2011; a regulatory information database report of hazardous material sites; and hazard mapping from State and local agencies.

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

The project site is located within the Preserve. Previously, portions of the staging area and commemorative site were part of the Silva property and the Mindego Hill Trail was part of the Mindego Ranch, which was used for livestock grazing. The site reconnaissance level survey did not identify any evidence of drums, tanks, fill dirt, stained soil, or any other indication of current or historical hazardous materials use, storage, disposal, or release at the site.

No areas of ultramafic rock, a type of igneous rock that may undergo metamorphosis to serpentinite, a potentially asbestos-containing rock, are mapped in the project vicinity.⁷² Soils and rock at the site would therefore not be expected to contain naturally-occurring asbestos.

Operation of the proposed staging area/commemorative site and trails would not require the routine transport, use, or disposal of significant quantities of hazardous materials. Some small quantities of commercially-available hazardous materials, such as janitorial supplies, would be used at the staging area for restroom maintenance. However, these materials would not be used in sufficient quantities or contrary to their intended use to pose a threat to human health or the environment. Development of the project site would therefore result in a less-than-significant impact on the public and the environment related to the routine transport, use, and handling of hazardous materials.

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

Construction at the project site would require the use and transport of hazardous materials. These materials would include fuels, oils, and other chemicals used during construction activities. Improper use and transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and environment.

Construction activities at the project site would require implementation of a Stormwater Pollution Prevention Plan (SWPPP) (See discussion in Section IX.a). The SWPPP would incorporate current Best Management Practices (BMPs) for construction, including site housekeeping practices, hazardous material storage, inspections, maintenance, worker training in pollution prevention measures, and containment of releases to prevent run off via stormwater. Although designed to protect stormwater quality, the SWPPP would also reduce the potential impacts of hazardous materials releases during construction to a less-than-significant level.

- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (No Impact)*

No schools are located within ¼-mile of the project site. In addition, the proposed project would locate a staging area/commemorative site and two new trails within the existing Preserve. The proposed project would not result in hazardous emissions and hazardous or acutely hazardous materials would not be handled at the site.

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

A review of regulatory databases, including listed hazardous materials release sites compiled pursuant to Government Code 65962.5, identified one hazardous material site in the project vicinity.⁷³ The site

⁷² California Department of Conservation, 2000. Division of Mines and Geology. *A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos*. Open-File Report 2000-19. August.

is a former landfill at the Mindego Ranch, listed in the Regional Water Quality Control Board Spills, Leaks, Incidents, and Cleanups (SLIC) program. The SLIC program investigates and remediates potential groundwater contamination sites that are not associated with leaking petroleum underground storage tanks. Available information indicates potential contaminants are confined to the landfill area and that there is no potential for those contaminants to have migrated and affected soils and groundwater at the project site.⁷⁴ Therefore, no significant hazard to the public or environment would be associated with this listed site.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? (No Impact)*

The project site is located more than 10 miles from the nearest public airports, which include San Jose International Airport, Moffett Federal Airfield, and the Palo Alto Airport. The project would not result in a safety hazard related to these airports.

- f) *For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (No Impact)*

The proposed project is not located within the vicinity of a private airstrip, and therefore would not result in a safety hazard for trail users related to the presence of an airstrip.

- g) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (No Impact)*

The project site is located within an existing open space preserve, and is not located near a population center. The San Mateo County Office of Emergency Services, a division of the Sheriff's Department established to coordinate emergency response planning for communities in the County, identifies the La Honda Fire Brigade and the Woodside Fire Protection District as the nearest agencies with established emergency response plans. Due to the distance from the project site and the nature of the proposed project, no impairment or interference with emergency response or emergency evacuation plans from either of these agencies would occur.

- h) *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? (Less-Than-Significant Impact)*

⁷³ Environmental Data Resources, 2011. EDR Radius Map Report, Mindego Trail Project, Inquiry Number 3196450.1s. October 28.

⁷⁴ Geocon Consultants, Inc., 2011. *Landfill Remediation Constraints Evaluation*. November.

The project site is located in an area of high wildfire hazard, as mapped by the California Department of Forestry and Fire Protection (CAL FIRE).⁷⁵ This hazard determination was based on modeling risks due to fuels, terrain, and weather in the area over a 30 to 50 year time horizon. CAL FIRE's Northern Region San Mateo-Santa Cruz Unit is responsible for fire suppression in the project vicinity.

The District coordinates with local and regional fire agencies and undertakes a number of wildfire management practices to reduce wildfire risks on District lands. These measures include vegetation management, mowing or brushing back vegetation from roads and trails, closing access points during periods of high fire risk, ensuring access for emergency vehicles, and training personnel in fire prevention and response.⁷⁶

Although trail users and workers could be exposed to wildland fire risks during project development and operation, management of the Preserve would not change with development of the proposed project. The paved parking lot would include physical barriers, including split-rail fencing, a chain gate, and tall vegetation to prevent vehicles from driving onto other areas of the Preserve or from parking on surrounding grass areas. The special-event parking area would be mowed, if necessary, prior to use to reduce ignition risk from parked vehicles. The District's current operational practice is to keep vegetation adjacent to and in all parking areas cleared and trimmed to manage fuels in higher risk areas. These measures and policies reduce the potential wildland fire risk to a less-than-significant level.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

⁷⁵ California Department of Forestry and Fire Protection, 2007. *Fire Hazard Severity Zones in SRA*, Map 41, Adopted November 7.

⁷⁶ Midpeninsula Regional Open Space District, 2008. *Draft Wildlife Fire Management Policy*, Agenda Item 1, Meeting 08-27. December.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) 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 checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) 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"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a) Violate any water quality standards or waste discharge requirements? (Less-Than-Significant Impact)				

The project site is located in the Mindego Creek subbasin of the San Gregorio Watershed. Stormwater from the project site is collected in the nearby Mindego Creek and Alpine Creek, which discharge to San Gregorio Creek and ultimately the Pacific Ocean.

The State Board and nine Regional Water Quality Control Boards regulate water quality of surface water and groundwater bodies throughout California. In the Bay Area, including the project site, the San Francisco Bay Regional Water Quality Control Board (Water Board) is responsible for implementation the Water Quality Control Plan (Basin Plan). The Basin Plan establishes beneficial water uses for waterways and water bodies within the region.

Runoff water quality is regulated by the National Pollutant Discharge Elimination System (NPDES) Program (established through the federal Clean Water Act). The NPDES program objective is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by State and federal statutes and regulations. Locally, the NPDES Program is administered by the Water Board. According to the water quality control plans of the Water Board, any construction activities, including grading, that would result in the disturbance of one acre or more would require compliance with the General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (Construction General Permit). The project site includes a 1.75-acre staging area and commemorative site and approximately 2.2 miles of trails, and would be subject to compliance with the Construction General Permit.

Operation of the project would be subject to the Water Board's Municipal Regional Permit (MRP), implemented in October 2009 by Order R2-2009-0074. Provision C.3 of the MRP addresses new development and redevelopment projects. Based on provisions that became effective December 1, 2011, the project would be subject to stricter requirements as project construction includes creation of more than 5,000 square feet of uncovered parking. Under MRP requirements, the entire project site, consisting of all existing, new, and/or replaced impervious surfaces, must be included in the treatment system design (i.e., stormwater treatment systems must be designed and sized to treat stormwater runoff from the entire project). A Stormwater Control Plan (SCP) must be prepared and submitted for the project site detailing design elements and implementation measures to meet MRP requirements. The project would be required to include Low Impact Development (LID) design measures and a Stormwater Facility Operation and Maintenance Plan must be prepared to ensure that stormwater control measures are inspected, maintained, and funded for the life of the project.

The San Mateo Countywide Water Pollution Prevention Program, a consortium of local municipalities and County agencies, facilitates local compliance with Federal, State, and Water Board requirements. They have established a C.3 Stormwater Technical Guidance manual⁷⁷ to assist developers, builders, and project applicants to comply with the C.3 requirements.

Development of the project would result in an increase in the amount of impervious surfaces at the site. The proposed staging area includes a 20-stall asphalt paved parking area in an area currently covered in vegetation and gravel.

In addition to the 20-space paved parking area, an unpaved special event parking area would be created at the staging area. Operation and parking of vehicles has the potential to introduce motor oil, metals, and sediment to stormwater runoff, so this change would create a potential on-site source of runoff contaminants.

Construction activities associated with the proposed project would cause disturbance of soil during excavation work, which could adversely impact water quality. Contaminants from construction vehicles and equipment and sediment from soil erosion could increase the pollutant load in runoff being transported to receiving waters during development. During operation of the project, contaminants from parked vehicles could become entrained in stormwater and impact runoff quality. Long-

⁷⁷ San Mateo Countywide Water Pollution Prevention Program, 2010. *C.3 Stormwater Technical Guidance*, version 2.0. October 20.

term degradation of runoff water quality from project operation could adversely affect water quality in area creeks and the Pacific Ocean.

To address these potential impacts, several elements have been incorporated into project design. Retention basin/bioswale areas have been included in the staging area design in order to minimize potential adverse effects to water quality. In addition, BMPs for erosion and sediment control previously approved by the California Department of Fish and Game and Water Board and in use by the District⁷⁸ would be implemented during project construction to avoid impacts such as erosion at the project site, or downstream sedimentation that can occur during project implementation in sensitive areas, such as a seasonal drainage. All construction work would occur during the dry season.

The proposed trails include a number of trail drainage improvements and erosion prevention measures in accordance with the District's standard details and specifications and as outlined in the project geotechnical report.⁷⁹ All exposed soil surfaces in the parking lot construction area would be seeded and mulched prior to the onset of the rainy season. Disturbed areas along the proposed trail system will be seeded and mulched as appropriate.

Implementation of the design elements discussed above would reduce potential stormwater quality impacts to a less-than-significant level.

b) *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)? (Less-Than-Significant Impact)*

The proposed project does not include the use of groundwater. Increases in impervious surfaces can affect groundwater levels through a reduction in groundwater recharge through stormwater percolation. However, based on the relatively small area of impervious surface added by the project, this potential impact would be less than significant.

c) *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? (Less-Than-Significant Impact)*

The proposed project would result in an increase in impervious surfaces (see discussion under Section IX.a, above) and trails would cross an ephemeral creek and several drainages, which has the potential to alter the rate or amount of surface runoff on the site such that erosion or siltation could occur. Preparation and implementation of the SCP and other project design elements described above under Section IX.a would ensure that potential on- or off-site erosion and siltation impacts would be less than significant.

⁷⁸ Midpeninsula Regional Open Space District, 2007. Best Management Practices and Standard Operating Procedures for Routine Maintenance Activities in Water Courses.

⁷⁹ Butano Geotechnical Engineering, 2011, op cit.

- d) *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? (**Less-Than-Significant Impact**)*

The proposed project would result in an increase in impervious surfaces (see discussion under Section IX.a, above) and trails would cross an ephemeral creek and several drainages, which has the potential to alter the rate or amount of surface runoff on the site. However, preparation and implementation of the SCP and other project design elements described above under Section IX.a would ensure that potential on- or off-site flooding impacts would be less than significant.

- e) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (**Less-Than-Significant Impact**)*

No stormwater drainage systems exist or are planned in the project area. Runoff water quality during construction and from parking areas during the operational phase of the project could contain pollutants (see discussion above under Section IX.a), resulting in contaminated runoff. However, implementation of a required SWPPP, SCP, and other project design elements described above under Section IX.a would reduce potential pollutants and result in lower flows of stormwater off-site.

- f) *Otherwise substantially degrade water quality? (**Less-Than-Significant Impact**)*

Operation of the proposed project would not result in any substantial changes to on-site water quality, with the exception of potential impacts associated with stormwater runoff, which are addressed above under Section IX.a.

- g) *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? (**No Impact**)*

The project site does not include housing and is not located within a 100-year flood hazard area as mapped by the Federal Emergency Management Agency (FEMA).⁸⁰

- h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows? (**No Impact**)*

Refer to Section IX.g. The project site is not located within the 100-year flood zone and development of the site would not impede or redirect potential flood flows.

- i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam? (**No Impact**)*

⁸⁰ Federal Emergency Management Agency, 2011. Stay Dry v2.0 data for San Mateo, California. Website: hazards.fema.gov/femaportal/wps/portal/NFHLWMSkmzdownload. Accessed October 31.

Refer to Section IX.g. The project site is not located in a mapped dam inundation area.⁸¹ Therefore, the proposed project would not pose a significant risk to people or structures as a result of levee or dam failure.

j) *Inundation by seiche, tsunami, or mudflow? (No Impact)*

The only enclosed surface water body in the project vicinity is Mindego Lake, which is located near the proposed Mindego Hill Trail. However, the elevation of the lake surface is more than 200 feet lower than the proposed trail, so any potential wave from a seiche⁸² would not affect the project site. The location of the project site, located at elevations of over 1,800 feet relative to the National Geodetic Vertical Datum (NGVD), and greater than 10 miles inland from the Pacific Ocean and San Francisco Bay, would not be subject to tsunami effects. Please refer to Section VI.a, for further information regarding mudflows, a type of landslide.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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"/>

a) *Physically divide an established community? (No Impact)*

The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying area.

The project site is located within the existing 3,137-acre Russian Ridge Open Space Preserve, in unincorporated San Mateo County. The site is approximately 4 miles southeast of the Town of La Honda and approximately 7 miles southwest of the City of Los Altos. The site is located entirely

⁸¹ Association of Bay Area Governments, 2011. *Earthquake and Hazards Information GIS System, Dam Failure Inundation*. Website: gis.abag.ca.gov/Website/DamInundation. Accessed October 31.

⁸² A seiche is a standing wave observed in an enclosed or partially enclosed water body.

within the Preserve, which is managed as open space. Surrounding lands are also generally managed for open space protection. The staging area would provide parking for visitors to the Preserve and the commemorative site would provide access to a scenic area. The Ancient Oaks Connector trail would provide a connection to other existing trails within the Preserve, while the Mindego Hill Trail would connect to an existing trail and provide access to the summit of Mindego Hill. Closure of an existing 1-mile segment of the Mindego Ridge Trail to bicycle use would marginally limit access for bicyclists throughout the Preserve. However, the closure is necessary to protect the federally-endangered San Francisco garter snake. Bicycle storage (locker or rack) would be provided to allow cyclists to safely leave their equipment and continue along the trail on foot, if desired. All other existing multi-use trails within the Preserve would remain open to bicycle use; bicyclists would also have access to the proposed multi-use Ancient Oaks Connector Trail. Overall, the proposed project would enhance public access to the Preserve. Therefore, the proposed project would not disrupt or divide the physical arrangement of an established community, but would instead result in an overall benefit to connectivity within the area.

- b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? (No Impact)*

As described in detail below, the proposed project would not conflict with the following applicable land use plans and regulations that govern the site: San Mateo County Zoning Ordinance, San Mateo County General Plan, Local Coastal Program, and District Use and Management Plans.

San Mateo County Zoning. The project site is located within unincorporated San Mateo County and is zoned Resource Management District (RM). The RM District was established to meet the County's objectives for the protection of open space and conservation. The project site is located within the existing Russian Ridge Open Space Preserve, which is managed as open space with low-intensity recreation and is compatible with the RM zoning district. The zoning regulations for this district regulate development of new structures, including recreation facilities such as those proposed by the project. All development within the RM District requires a permit, which would be applied for and obtained prior to project construction. The proposed uses consist of low-intensity recreational improvements that would enhance public access to the Preserve and the District's management of the Preserve as open space would continue. Therefore, the proposed project would be consistent with the County's Zoning Ordinance.

San Mateo County General Plan. The project site is designated as General Open Space (OS) on the San Mateo County General Plan Land Use Map. This designation is intended for resource management and production uses. The General Plan specifically encourages the District to "to acquire, protect, and make available for public use open space lands in rural areas." The proposed project would consist of low-intensity recreational uses designed for the purpose of increasing public access to and throughout the Preserve. The District's management of the Preserve as open space would continue. Therefore, the proposed project would be consistent with the County's General Plan land use designation for the site.

Local Coastal Program Area. The proposed Mindego Hill Trail portion of the proposed project is located within the Coastal Protection Area (see Figure 2) governed by San Mateo County's Local

Coastal Program (LCP), in partnership with the California Coastal Commission.⁸³ The County requires a Coastal Development Permit for all development within the LCP. The proposed trail would provide access to the summit of Mindego Hill and is consistent with the area's existing and continued use as open space. The County's LCP encourages the location of trails within open space areas, provided that existing resources are protected. As detailed throughout this report, any potential impacts to area resources would be reduced to less-than-significant levels with implementation of mitigation measures. In addition, the proposed trail would be constructed according to District standards and would not conflict with regulations and polices of the LCP. The District would apply for and obtain any necessary permits from the County prior to trail construction. Therefore, the proposed project would be consistent with the San Mateo County LCP.

Midpeninsula Regional Open Space District Use and Management Plans. As part of the former Silva property purchase agreement between the District and Peninsula Open Space Trust (POST), POST reserved the right to work with the District to potentially implement a commemorative site, staging area, and trail at a later date:

Working collaboratively with POST, study the feasibility of a POST-sponsored recognition site landscape feature potentially including a public staging area and trail. Implementation of such a feature is contingent on future environmental review and regulatory requirements.⁸⁴

In August, 2011, the District approved the Mindego Gateway Project as a new "Key Project" and added it to the Fiscal Year (FY) 2010-2011 Action Plan.⁸⁵ Specific project components were reviewed and approved by the Board Use and Management Committee and were tentatively approved by the full Board in January 2012.⁸⁶

Midpeninsula Regional Open Space District Service Plan for the Coastsides Protection Area. The Service Plan for the Coastsides Protection Area was adopted with the Coastal Annexation Environmental Impact Report ("Annexation EIR") in 2003.⁸⁷ The Service Plan includes guidelines and implementation actions for the Coastsides Protection Area, which includes the Mindego Hill Trail portion of the proposed project (all other project components are outside the Coastsides Protection Area). Many of the guidelines and actions in the Service Plan are mitigation measures identified in the Annexation EIR. The Mindego Hill Trail was designed according to these guidelines and its proposed construction and use is consistent with the mitigation measures identified in the Annexation EIR. For example:

- The proposed trail would be sited and designed to be in harmony with the surrounding natural and cultural setting of the area (Annexation EIR Mitigation Measure AES-1a);

⁸³ California, State of, 1999. California Coastal Commission Technical Services Division. LCP Status, North Central Coast Area Map. July 1.

⁸⁴ Midpeninsula Regional Open Space District, 2011. Agenda Item 5, Meeting 11-12. May.

⁸⁵ Midpeninsula Regional Open Space District, 2011. Agenda Item 6, Meeting 11-21. August.

⁸⁶ Midpeninsula Regional Open Space District, 2012. Agenda Item 4, Meeting 12-05. January.

⁸⁷ Midpeninsula Regional Open Space District, 2003. *San Mateo Coastal Annexation Final Environmental Impact Report*. May.

- Sensitive habitats within the trail alignment would be avoided (Annexation EIR Mitigation Measure BIO-1b);
- Trail use would be limited to hikers and equestrians only to avoid impacts of bicycle use on the federally-protected San Francisco garter snake (Annexation EIR Mitigation Measure BIO-1c); and
- The trail alignment has been evaluated by the District’s consulting geologist and sited to avoid unstable slopes (Annexation EIR Mitigation Measure GEO-1a).

In addition, mitigation measures recommended in this report, where they apply to development of the Mindego Hill Trail, are consistent with the mitigation measures recommended in the Annexation EIR.

c) *Conflict with any applicable habitat conservation plan or natural community conservation plan? (No Impact)*

Please refer to Section IV.f.

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

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State? (No Impact)*

The San Mateo County General Plan Resources Map⁸⁸ does not identify known mineral resources or mineral recovery sites within or adjacent to the Preserve. Therefore, the proposed project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State, or the loss of availability of a locally-important mineral resource recovery site.

b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (No Impact)*

Please refer to Section XI.a.

⁸⁸ San Mateo, County of, 1986. *San Mateo County General Plan Mineral Resources* (map). November.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Overview. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness.

Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for a number of various sound level metrics, including the day/night sound level (L_{dn}) and the Community Noise Equivalent Level (CNEL), both of which represent how humans

are more sensitive to sound at night.⁸⁹ In addition, the equivalent continuous sound level (L_{eq}) is the average sound energy of time-varying noise over a sample period and the L_{max} is the maximum instantaneous noise level occurring over a sample period. The percentile-exceeded sound level (L_{xx}) is the sound level exceed “x” percent of a specific time period. For example, L_{10} is the sound level exceeded 10 percent of the time.

- a) *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? (Less-Than-Significant Impact)*

The County noise ordinance is the primary enforcement tool for the operation of locally regulated noise sources, such as construction activity, within the unincorporated areas of San Mateo County. Chapter 4.88 (Noise Control) of the San Mateo County Code contains exterior noise standards for the control of unnecessary, excessive and annoying noise. Table 5 lists the exterior noise level standards at noise-sensitive land uses as set forth by the County. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property are exempted from the provisions in Table 5, provided said activities do not take place between the hours of 6:00 p.m. and 7:00 a.m. weekdays, 5:00 p.m. and 9:00 a.m. on Saturdays or at any time on Sundays, Thanksgiving, and Christmas.

Table 5: Exterior Noise Standards

Category	Cumulative Number of Minutes in Any 1-Hour Time Period	Percentile-Exceeded Sound Level (L_{xx})	Daytime 7:00 a.m. – 10:00 p.m.	Nighttime 10:00 p.m. – 7:00 a.m.
1	30	L_{50}	55	50
2	15	L_{25}	60	55
3	5	L_{10}	65	60
4	1	L_1	70	65
5	0	L_{max}	75	70

Source: County of San Mateo, 1982.

Noise-sensitive land uses (or receptors) can be defined as those areas which benefit from a lowered sound level, consistent with areas of primary human activities, such as sleeping or learning. Examples of noise-sensitive receptors include but are not limited to residences, schools, daycare facilities, hospitals, places of worship, parks, and libraries. Noise-sensitive receptors in the immediate vicinity of the project site include residences on Alpine Road. Primary noise sources in the project vicinity include vehicular traffic on local roadways (e.g., Alpine Road) and occasional airplane flyovers.

Construction Period Impacts. Development of the proposed project would temporarily raise ambient noise levels in the vicinity of the project during the 1 to 2 month long construction period. Construction of the proposed project would involve the use of excavators, dozers, concrete trucks,

⁸⁹ L_{dn} is the 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m. CNEL is the 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 decibels to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m. Source: Harris, Cyril M. 1998. *Handbook of Acoustical Measurement and Noise Control*.

and paving equipment. Construction-related short-term noise levels would be higher than existing ambient noise levels in the vicinity of the project site but would end once construction is completed. The loudest phase of construction would likely be during earthmoving activities, which would include the use of excavators and dozers. Typical maximum noise levels generated by excavators and dozers are 86 dBA L_{max} and 85 dBA L_{max} at 50 feet, respectively.⁹⁰ Each doubling of the number of sound sources with equal strength would increase the noise level by 3 dBA, due to the logarithmic nature of the decibel scale. Assuming each piece of construction equipment operates at some distance apart from the other equipment, the predicted combined noise level during this phase of construction is 89 dBA L_{max} at 50 feet.

Sound from a point source, such as the center of a construction area, attenuates at a rate of approximately 6 dBA per doubling of distance. The closest noise-sensitive receptors are residences southeast of the proposed staging area on Alpine Road. At a distance of approximately 750 feet from construction activities, these residences could be exposed to construction noise levels of up to 65 dBA L_{max} . Because the predicted construction noise level of 65 dBA L_{max} is less than both the 75 dBA L_{max} nighttime and the 70 dBA L_{max} daytime exterior noise standards shown in Table 5, this impact would be less than significant.

Operation Period Impacts. Development of the proposed project would generate an incremental increase in traffic noise on local roadways (e.g., Alpine Road, Skyline Boulevard and Page Mill Road) as visitors access the new staging area, commemorative site, and trails. As discussed in Section XVI, existing Sunday peak hour traffic volumes are 60, 164, and 84 on Alpine Road, Skyline Boulevard and Page Mill Road, respectively. Development of the proposed project would add up to an additional net 63 Sunday peak hour vehicle trips, which would not result in a perceptible increase in traffic noise levels at nearby receptors. Therefore, traffic-related operational noise generated by the project would be less than significant.

Operation of the proposed project would also involve the use of the new Mindego Hill Trail by hikers and equestrians while the new Ancient Oaks Connector Trail would be open to hikers, bicyclists, and equestrians. These new trails are located within the existing Preserve. Noise associated with the trail users would be minimal and may include the intermittent raising of voices. Maintenance of the proposed trail may include the occasional use of vegetation management equipment and possibly a service truck. However, no sensitive receptors are located within the vicinity of the trails. Neither daily recreational use nor intermittent maintenance activities associated with the proposed trail would result in a substantial increase in ambient noise levels.

b) *Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels? (Less-Than-Significant Impact)*

In general, ground borne vibration from standard construction practices is only a potential issue when within 25 feet of sensitive uses; potentially sensitive land uses are located approximately 750 feet from the site. Ground borne noise in buildings and structures is produced when interior surfaces such as walls and floors are “excited” into motion by ground borne vibration transmitted into a given structure. Ground borne noise is not typically an issue for standard construction practices, especially the smaller-sized equipment that would be used at the site. Operation of the proposed project would

⁹⁰ Bolt, Beranek & Newman, 1987. *Noise Control for Buildings and Manufacturing Plants.*

also not be a source of substantial ground borne vibration. Therefore, the proposed project would not expose persons to or generate excessive ground borne vibration or noise levels.

- c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? (**Less-Than-Significant Impact**)*

Please refer to Section XII.a. The proposed project would incrementally increase noise levels on and in the vicinity of the site through noise generated on the site (recreationists and intermittent maintenance activities) and on local roadways. However, these increases in ambient noise would be minor; therefore, operational noise impacts would be less than significant.

- d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? (**Less-Than-Significant Impact**)*

Please refer to Section XII.a. Construction activities on the site would increase short-term ambient noise levels over a 1 to 2 month construction period. Construction-related short-term noise levels would be higher than existing ambient noise levels in the vicinity of the project site but would cease once construction is completed. Because the predicted construction noise level is less than both the daytime and nighttime L_{max} exterior noise level standards shown in Table 5, temporary increases in ambient noise levels associated with project construction would be less than significant.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (**No Impact**)*

The project site located more than 10 miles from the nearest public airports, which include San Jose International Airport, Moffett Federal Airfield, and the Palo Alto Airport. The proposed project would not be located in an airport land use plan or within 2 miles of any airport. Furthermore, the project would not generate new residents or workers. Therefore, development of the proposed project would not expose persons to high levels of airport-related noise.

- f) *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? (**No Impact**)*

The project is not located within the vicinity of a private airstrip. Therefore, implementation of the proposed project would not expose persons to high levels of airstrip-related noise.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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"/>

a) *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)? (No Impact)*

The proposed project would result in the development of a staging area, commemorative site, and two new trails within the existing Preserve. No new utility infrastructure would be required to serve the proposed project. Therefore, the proposed project would not directly or indirectly induce population growth.

b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (No Impact)*

The proposed project would not displace existing housing or people, necessitating the construction of replacement housing elsewhere.

c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (No Impact)*

Please refer to Section XIII.b.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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XIV. PUBLIC SERVICES.

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

i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Fire Protection. District staff serves as a first responder for fire emergencies, with California Department of Forestry and Fire Protection (CALFIRE) acting as the responsible agency for fire fighting within the Preserve. The proposed project consists of a staging area/commemorative site and two new trails to increase recreational opportunities within the Preserve. The project would not substantially increase usage of the Preserve, and would not include housing units or other structures; therefore, the demand for fire protection services would not substantially increase with development of the proposed project. In addition, the new trail would be clearly marked to aid in access and timely response for medical emergencies, and the new staging area would provide paved access for emergency response vehicles, adjacent to an unpaved special event parking area, which would provide a helicopter landing area in cases of emergency. Therefore, the proposed project would result in a less-than-significant impact on fire services in the area and would not result in the need for additional or altered fire protection services.

Police Protection. The District’s Operations Department already provides ranger patrol within the Preserve. District staff is responsible for enforcing District regulations and certain selected sections of

California code pertaining to vandalism, bicycle helmets, and parking. The San Mateo County Sherriff's Office is involved in enforcement of all other code sections. Public use of the new staging area/commemorative site and trails is not expected to generate a significant increase in calls for police services and would not generate the need for additional officers or equipment. Therefore, the project would result in a less-than-significant impact on police services in the area and would not result in the need for additional or altered police protection facilities.

Schools. The proposed project would not involve the construction of housing or employment-generating facilities. Therefore, it would not increase demand for school services.

Parks. The proposed project would provide new facilities within the existing Preserve. The project site, which is generally located within the southeast portion of the Preserve is surrounded by other open space preserves and unincorporated areas of the County of San Mateo, although the Sam McDonald County Park is located approximately 4 miles to the southwest. The proposed project would not increase the usage of this or other existing parks or increase the demand for new park facilities within the vicinity of the site. Please refer to Section XV.a for a description of the proposed project's impact on District facilities, which are all managed as open space.

Other Public Facilities. The proposed project would not substantially increase demand for other public facilities or services, beyond those discussed above.

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

The 3,137-acre Preserve is currently open to the public and offers approximately 8 miles of predominantly multi-use trails for use by hikers, equestrians, and bicyclists. Preserve visitors currently park on roadside shoulders or pullouts along Alpine Road or at the staging area located at the intersection of Skyline Boulevard and Alpine Road, approximately 1.4 miles northeast of the site. Preserve

visitors that currently park on shoulders or pullouts would likely utilize the new parking facilities when constructed due to the visitor amenities that would be found (i.e., restroom, trailhead signs, staging area, ease of access).

Development of the proposed project would increase access to and connections between (via the trails) existing low-intensity recreational facilities within the Preserve and other surrounding open space areas. However, closure of an existing 1 mile segment of the existing Mindego Ridge Trail would reduce bicycle use of this particular trail and possibly other existing connecting trails. Even if it can be assumed that all users of the new staging area would be new visitors to the Preserve, due to the size of the Preserve, the extensive trail system and linkages, the new commemorative site, and the daily hours of park operation, it is likely that the arrival of visitors would be dispersed over time on any given day, and the visitors themselves would be dispersed throughout the Preserve. Therefore, the minor increase in use of the Preserve due to the construction of new amenities and enhanced access is not expected to result in a substantial impact to the existing trail system or recreation resources of the Preserve.

Given the above, increased access for low intensity uses to and throughout the Preserve provided by the new staging area, commemorative site and trails would not increase the use of the Preserve to a level that would result in a substantial physical deterioration of the Preserve or other parks and recreational facilities (also refer to Section XIV.a).

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? (Less-Than-Significant Impact)*

The proposed trails, staging area, and commemorative site are recreational facilities. Potential impacts associated with the construction of these facilities are discussed throughout this report. As noted in Section XIV.a and XV.a, the proposed project would not substantially increase use of local facilities or require the construction of new or expansion of existing recreational facilities.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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XVI. TRANSPORTATION/TRAFFIC. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) 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"/>
a) <i>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? (Less-Than-Significant Impact)</i>				

Users of the staging area are anticipated to engage in activities (e.g., hiking, horseback riding, and bicycling), which generally result in a long duration of stay and low turnover of parking spaces. The trip generation of a similar parking and staging area, the El Corte de Madera Creek staging area project, was evaluated by Hexagon Transportation Consultants, Inc. in a memorandum report dated June 30, 2009.⁹¹ As noted in the Hexagon report, the standard trip generation reference, *Trip Generation*,⁹² published by the Institute of Transportation Engineers, does not provide trip generation data for open space preserves. The Hexagon report found that the peak-hour trip generation rate for a similar parking lot in the area is highest on the weekend (specifically Sunday) and was determined to be 1.02 trips per parking stall.

The proposed project would provide 20 designated stalls in a new asphalt paved lot and an unpaved special event parking area for an additional 42 spaces that is intended to only be used for occasional

⁹¹ Hexagon Transportation Consultants, Inc., 2009. *El Corte de Madera Creek Open Space Preserve – Staging Area Traffic and Site Access Review*. June 30.

⁹² Institute of Transportation Engineers, 2008. *Trip Generation, 8th Edition*. December.

special events. Application of the rate of 1.02 trips per parking stall to the 20 proposed parking stalls would result in a peak hour trip generation of 21 peak hour trips (11 inbound and 10 outbound). It is likely that some of these trips would be relocated from other locations accessing the existing Ancient Oaks Trail and Mindego Ridge Trail. However, this analysis assumes that all of the trips generated by the proposed staging area are analyzed as new trips.

A qualified data collection company, National Data Services, collected traffic volume data in the vicinity of the project site. Traffic counting pneumatic tubes were placed on Alpine Road west of Skyline Boulevard, on Skyline Boulevard south of Alpine Road/Page Mill Road, and on Page Mill Road east of Skyline Boulevard. Data were collected for a 24-hour period on two days, Sunday (October 2, 2011) and Tuesday (October 4, 2011), to represent both the weekend and a typical weekday. Existing peak-hour traffic volume data is summarized in Table 6.

Table 6: Existing Peak-Hour Traffic Volume

	Skyline Boulevard	Page Mill Road	Alpine Road
Weekday Peak Hour	5:00 p.m. to 6:00 p.m.	5:45 p.m. to 6:45 p.m.	5:45 p.m. to 6:45 p.m.
Eastbound	92	8	6
Westbound	20	46	21
Total	112	54	27
Sunday Peak Hour	1:00 p.m. to 2:00 p.m.	5:00 p.m. to 6:00 p.m.	12:00 p.m. to 1:00 p.m.
Eastbound	68	52	38
Westbound	96	32	22
Total	164	84	60

Source: LSA Associates, Inc. 2011.

Critical Movement Analysis methodology, used in the San Mateo County Congestion Management Program (CMP)⁹³ to analyze intersection performance, utilizes a lane capacity of 1,375 vehicles per hour per lane (vphpl). To analyze the performance of the adjacent roadways, a lane capacity of 1,375 vphpl was utilized. All three roadways in the vicinity of the Preserve are two-lane undivided highways (total lane capacity of 2,750 vehicles). Less than 6 percent of the roadway capacity is currently utilized by existing traffic, even at peak times. Skyline Boulevard (SR 35) is a CMP monitoring location. The San Mateo County CMP establishes a level of service standard of E or better, which would be achieved if peak hour traffic volumes are less than 90 percent of the roadway capacity, (i.e., less than 2,475 vehicles). As shown in Table 6, the peak traffic is 164 vehicles on Skyline Boulevard, or less than 6 percent of the roadway capacity. Traffic volumes on Page Mill Road and Alpine Road are significantly lower than on Skyline Boulevard. As a result, Skyline Boulevard, Page Mill Road and Alpine Road all meet the level of service standard set forth by the CMP.

As discussed above, the staging area is anticipated to add an additional 21 trips (11 inbound and 10 outbound) during its highest operation during the Sunday peak hour. Trip generation would be less on other days. If all trips to and from the site are added to each roadway, the additional traffic would represent less than 1 percent of the roadway capacity. All roadways are expected to continue to operate within their available capacity. Therefore, the new traffic generated by the proposed project would result in a less-than-significant impact on the roadway system and would not cause any

⁹³ City/County Association of Governments of San Mateo County, 2011. *Draft Final San Mateo County Congestion Management Program*.

roadways to exceed an adopted measure of effectiveness, including Skyline Boulevard, the CMP designated roadway.

- b) *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? (**Less-Than-Significant Impact**)*

Please refer to Section XVI.a. The proposed project would not conflict with the County's level of service standards for Skyline Boulevard, the CMP-designated roadway that provides access to the Preserve.

- c) *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? (**No Impact**)*

Please refer to Sections VIII.e and f. The proposed project is not located within the vicinity of or within a land use plan applicable to a public or private use airport. The proposed project would not result in a change in air traffic patterns resulting in a substantial safety risk.

- d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (**Less-Than-Significant Impact**)*

The proposed staging area has been designed according to applicable County standards. Standard 24 foot wide drive aisles and 9 feet by 18 feet parking stalls would be provided. Although the parking stalls are designed to be 9 feet by 18 feet, the paved area of the stall is 9 feet by 16 feet with a wheelstop at the outside edge. The remaining 2 feet at the end of each stall would be planted and maintained with low ground cover or capped with base rock. Although the parking stalls are not paved for the full 18 foot length, the stall will function as an 18 foot long parking stall, as the front end of the vehicle will overhang the 2 feet of low ground cover or base rock. This design conforms with standards detailed in the *San Mateo County Sustainable Green Streets and Parking Lots Guidebook*.⁹⁴ As a result, no hazards due to parking lot design are anticipated.

An analysis of sight distance at the project driveway was completed by Hexagon Transportation Consultants, Inc.⁹⁵ The following discussion summarizes the results of the analysis, which is provided in Appendix C.

The project is located along Alpine Road, which is a rural, curving roadway with no shoulders that traverses a hilly area. Other driveways are located along Alpine Road in the vicinity of the project site. The project driveway is proposed to be located at the current driveway location, equidistant from uphill and downhill curves, to provide the best possible line of sight. The existing sight distance at the project driveway was measured to be 250 feet to the north, and 220 feet to the south. With the vegetation removal proposed along the roadway to the north of the driveway as described in the

⁹⁴ Nevue Ngan Associates and Sherwood Design Engineers, 2009. *San Mateo County Sustainable Green Streets and Parking Lots Design Guidebook*. San Mateo Countywide Water Pollution Prevention Program.

⁹⁵ Hexagon Transportation Consultants, Inc., 2012. *Sight Distance Analysis for Mindego Staging Area*. February.

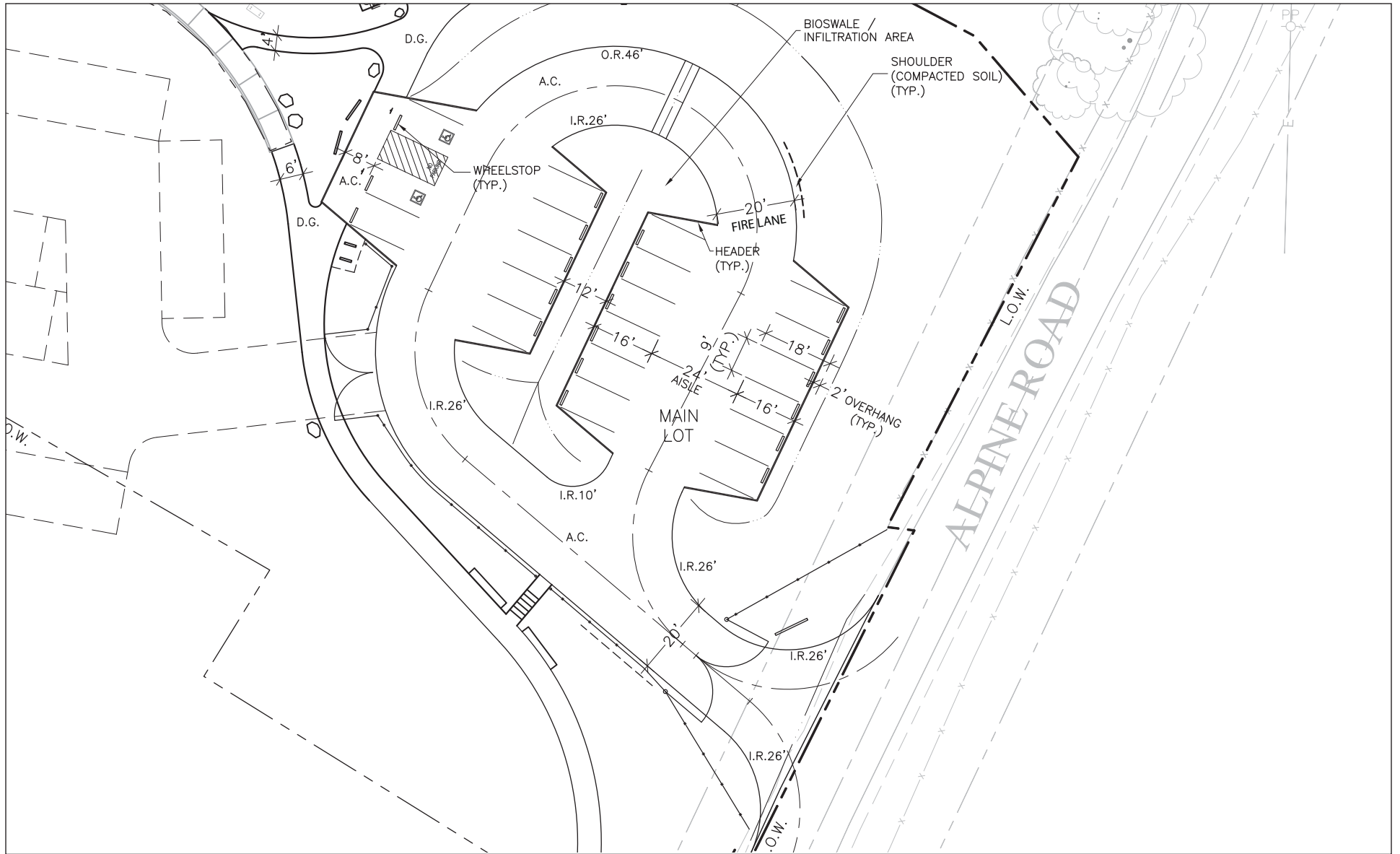
project description, the sight distance from the driveway to the north would be improved to 300 feet or more.

Adequate sight distance is outlined in the Caltrans Highway Design Manual (HDM). As noted in the HDM, stopping sight distance is the distance required by the driver of a vehicle, to bring the vehicle to a stop after an object on the road becomes visible. Corner sight distance is the distance required for a waiting vehicle to enter the roadway without requiring through traffic to radically alter their speed. Corner sight distance is calculated to provide 7.5 seconds for a driver on the crossroad to complete the necessary maneuver while the approaching vehicle travels at the design speed of the roadway. Corner sight distance is greater than stopping sight distance. However, the HDM states that in restrictive conditions, the stopping sight distance may be used. Restrictive conditions are defined as situations that would require right-of-way acquisition, extensive excavation, or environmental impacts to achieve the corner sight distance. Restrictive conditions exist at the project, due to the roadway design and hilly terrain, therefore the stopping sight distance was applied.

The sight distance requirement is based on the speed vehicles travel along the roadway. The speed on Alpine Road was measured on Wednesday, February 1, 2012. The 85th percentile speed was found to be 35.8 miles per hour (mph) on the curve north of the project driveway and 27.1 mph on the curve south of the project driveway. The northern curve is gentler than the southern curve, and therefore vehicles can travel faster around the curve. Greater sight distance would be required to the north because of the higher travel speeds of vehicles approaching the project driveway from the northern curve. Based on the speeds observed on Alpine Road, the HDM would require a sight distance of 300 feet to the north and 200 feet to the south. The project includes removal of vegetation on the road embankment north of the driveway. Therefore, the required sight distance would be provided by the proposed project.

e) Result in inadequate emergency access? (Less-Than-Significant Impact)

Emergency access needs in the Preserve include fire fighting and evacuation in the event of injury. Access to the staging area has been designed to accommodate emergency vehicles, including fire trucks. A 20 foot fire lane is provided with a 26 foot inside turning radius and 46 foot outside turning radius, which meets standards set by the San Mateo County Fire Department. The emergency vehicle maneuvering plan is illustrated in Figure 5. The parking lot is designed to permit an emergency vehicle to enter, circulate, and exit without backing up. To facilitate evacuation of injured persons or to assist in firefighting activities, the special event parking area would be designed to function as a helicopter landing zone in an emergency. The width of existing trails limits access by large fire-fighting and rescue vehicles, but permits access by all-terrain vehicles. Increased trail connectivity resulting from the project may be beneficial for emergency evacuation in the area. Therefore, the proposed project would not result in inadequate emergency access.



LSA

FIGURE 5



SOURCE: JOHN NORTHMORE ROBERTS & ASSOCIATES, FEBRUARY 2012.

I:\MOS1101 Mindego\figures\Fig_5.ai (2/16/12)

Mindego Gateway Project IS/MND
 Conceptual Staging Area Vehicle Maneuvering Plan

- f) *Conflict with adopted polices, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (Less-Than-Significant Impact)*

Public transit service is not currently provided in the vicinity of the Preserve. The proposed project would improve connectivity within the preserve and to the existing regional trail network to the benefit of those using the hiking trails and other multiuse trails in the vicinity. The Draft 2011 San Mateo County CMP does not contain plans or programs regarding public transit along Skyline Boulevard, Page Mill Road or Alpine Road. Therefore, the project will not conflict with any adopted polices, plans, or programs supporting alternative transportation.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) 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"/>
b) 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 checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) 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 checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, State, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? (No Impact)*

The proposed project would include one vault restroom facility, which would be serviced by the District. Therefore, the proposed project would not increase the demand for wastewater treatment and would not compromise the treatment standards of the Water Board.

- b) *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? (Less-Than-Significant Impact)*

The site has no water service, so there would be no permanent irrigation system. New planting would be generally concentrated in the lower areas to take advantage of natural rainfall. The District may bring irrigation water to the staging area by truck until the plants are established, but the plants would survive on rainfall alone in the long term.

The project includes a self-contained, vault restroom facility, which is not connected to the public utility system. A black, built-in ventilation stack is heated by the sun to draw air up and out and also provides circulation which, coupled with heat, desiccates the effluent. The waste effluent is removed and properly disposed of two or three times per year.

Development of the proposed project would not generate wastewater or require the use of substantial quantities of water. Therefore, the proposed project would not increase the demand for water or require the construction of new wastewater or water facilities, or the expansion of existing facilities and this impact would be less than significant.

- c) *Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Less-Than-Significant Impact)*

Please refer to Sections IX.d and e. The proposed project would not generate a substantial quantity of runoff that would exceed the capacity of stormwater drainage systems that serve the site.

- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (Less-Than-Significant Impact)*

Please refer to Section XVII.b. Existing water entitlements would be sufficient to supply water to the project.

- e) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (No Impact)*

Please refer to Section XVII.a. The proposed project would not result in an increase in demand for wastewater treatment.

- f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (Less-Than-Significant Impact)*

The District does not provide regular trash collection services, as District ordinances require users to dispose of any refuse brought to the Preserve and prohibits public littering or dumping of any material onto the Preserve. Illegal trash is removed from the Preserve by District maintenance crews and properly disposed of. Because the amount of solid waste generated by the project would be small and because the District would properly dispose of any illegal littering, the proposed project would not affect landfill capacity and would comply with all statutes and regulations related to solid waste.

- g) *Comply with federal, State, and local statutes and regulations related to solid waste? (Less-Than-Significant Impact)*

Please refer to Section XVII.f.

	Potentially Significant Unless Mitigation Incorporated	Potentially Significant	Less Than Significant Impact	No Impact
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XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.

- | | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) 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, or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- a) *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, or eliminate important examples of*

the major periods of California history or prehistory? (Potentially Significant Unless Mitigation Incorporated)

Development of the proposed project could adversely affect protected wildlife habitats. However, implementation of Mitigation Measures BIO-1 and BIO-7 would ensure that potential impacts to biological resources would be reduced to a less-than-significant level. Implementation of Mitigation Measures CULT-1a, CULT-1b, and CULT-2 would ensure that potential impacts to cultural resources would also be reduced to a less-than-significant level. With mitigation, development of the proposed project would not: 1) degrade the quality of the environment; 2) substantially reduce the habitat of a fish or wildlife species; 3) cause a fish or wildlife species population to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) (Less-Than-Significant Impact)*

The proposed project’s impacts are individually limited and not cumulatively considerable. In addition, most of the project’s impacts result from construction-period activities and would be temporary. The project would result in the development of low intensity recreational and support facilities that would provide increased connectivity to existing facilities within the Preserve. All environmental impacts that could occur as a result of the proposed project would be reduced to a less-than-significant level through implementation of the mitigation measures recommended in this document.

- c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? (No Impact)*

The proposed project would not result in any environmental effects that would cause substantial direct or indirect adverse effects to human beings.

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C. COMMUNICATIONS

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APPENDIX A

AIR QUALITY AND GREENHOUSE GAS EMISSIONS DATA

Summary Report for Summer Emissions (Pounds/Day)

File Name: P:\MOS1101 Mindego Gateway Trail\Background\midego gateway..urb924

Project Name: Midego Gateway

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2007 TOTALS (lbs/day unmitigated)	6.31	44.86	25.68	0.00	20.02	2.74	22.76	4.18	2.52	6.70	3,615.02
2008 TOTALS (lbs/day unmitigated)	7.68	53.43	39.67	0.01	20.05	3.28	23.34	4.20	3.02	7.22	5,253.47

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.12	0.02	1.55	0.00	0.01	0.01	2.81

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.45	0.56	5.72	0.01	1.13	0.21	633.25

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.57	0.58	7.27	0.01	1.14	0.22	636.06

Detail Report for Winter Operational Unmitigated Emissions (Pounds/Day)

File Name: P:\MOS1101 Mindego Gateway Trail\Background\midego gateway..urb924

Project Name: Midego Gateway

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Winter Pounds Per Day, Unmitigated)

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
City park	0.53	0.84	6.17	0.01	1.13	0.21	546.44
TOTALS (lbs/day, unmitigated)	0.53	0.84	6.17	0.01	1.13	0.21	546.44

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2013 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
City park	22.00	acres	4.00	88.00	656.26	656.26

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.7	0.6	99.2	0.2
Light Truck < 3750 lbs	12.8	0.8	96.9	2.3

Vehicle Type	Vehicle Fleet Mix				Diesel
	Percent Type	Non-Catalyst	Catalyst	Diesel	
Light Truck 3751-5750 lbs	19.9	0.5	99.5	0.0	
Med Truck 5751-8500 lbs	6.6	0.0	100.0	0.0	
Lite-Heavy Truck 8501-10,000 lbs	0.9	0.0	77.8	22.2	
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0	
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0	
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0	
Other Bus	0.1	0.0	0.0	100.0	
Urban Bus	0.1	0.0	0.0	100.0	
Motorcycle	3.2	56.2	43.8	0.0	
School Bus	0.1	0.0	0.0	100.0	
Motor Home	0.6	0.0	83.3	16.7	

Travel Conditions

	Residential				Commercial	
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)				5.0	2.5	92.5
City park						

Operational Changes to Defaults

Detail Report for Winter Operational Unmitigated Emissions (Pounds/Day)

File Name: P:\MOS1101 Mindego Gateway Trail\Background\midego gateway..urb924

Project Name: Midego Gateway

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Winter Pounds Per Day, Unmitigated)

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
City park	0.53	0.84	6.17	0.01	1.13	0.21	546.44
TOTALS (lbs/day, unmitigated)	0.53	0.84	6.17	0.01	1.13	0.21	546.44

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2013 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
City park	22.00	acres	4.00	88.00	88.00	656.26
						656.26

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.7	0.6	99.2	0.2
Light Truck < 3750 lbs	12.8	0.8	96.9	2.3

Vehicle Type	Vehicle Fleet Mix				Diesel
	Percent Type	Non-Catalyst	Catalyst	Diesel	
Light Truck 3751-5750 lbs	19.9	0.5	99.5	0.0	
Med Truck 5751-8500 lbs	6.6	0.0	100.0	0.0	
Lite-Heavy Truck 8501-10,000 lbs	0.9	0.0	77.8	22.2	
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0	
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0	
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0	
Other Bus	0.1	0.0	0.0	100.0	
Urban Bus	0.1	0.0	0.0	100.0	
Motorcycle	3.2	56.2	43.8	0.0	
School Bus	0.1	0.0	0.0	100.0	
Motor Home	0.6	0.0	83.3	16.7	

Travel Conditions

	Residential				Commercial	
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)				5.0	2.5	92.5
City park						

Operational Changes to Defaults

Summary Report for Annual Emissions (Tons/Year)

File Name: P:\MOS1101 Mindego Gateway Trail\Background\midego gateway..urb924

Project Name: Midego Gateway

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2007 TOTALS (tons/year unmitigated)	0.04	0.34	0.18	0.00	0.22	0.02	0.24	0.05	0.02	0.06	27.11
2008 TOTALS (tons/year unmitigated)	0.17	1.08	1.32	0.00	0.09	0.07	0.16	0.02	0.06	0.08	148.16

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.01	0.00	0.14	0.00	0.00	0.00	0.25

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.09	0.12	1.07	0.00	0.21	0.04	110.29

2/10/2012 9:57:18 AM

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.10	0.12	1.21	0.00	0.21	0.04	110.54

Detailed Results

Unmitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*	99.99	0.00	0.00	99.99	96.32%
Area Source:	0.23	0.00	0.00	0.23	0.22%
Electricity:	0.00	0.00	0.00	0.00	0.00%
Natural Gas:	0.00	0.00	0.00	0.00	0.00%
Water & Wastewater:	3.59	0.00	0.00	3.60	3.46%
Solid Waste:	0.00	N/A	N/A	0.00	0.00%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total				103.82	100.00%

* Several adjustments were made to transportation emissions after they have been imported from URBEMIS. After importing from URBEMIS, CO2 emissions are converted to metric tons and then adjusted to account for the "Pawley" regulation. Then, CO2 is converted to CO2e by multiplying by .100/95 to account for the contribution of other GHGs (CH4, N2O, and HFCs [from leaking air conditioners]). Finally, CO2e is adjusted to account for th low carbon fuels rule.

Baseline	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*	0.00	0.00	0.00	0.00	N/A
Area Source:	0.00	0.00	0.00	0.00	N/A
Electricity:	0.00	0.00	0.00	0.00	N/A
Natural Gas:	0.00	0.00	0.00	0.00	N/A
Water & Wastewater:	0.00	0.00	0.00	0.00	N/A
Solid Waste:	0.00	N/A	N/A	0.00	N/A
Agriculture:	0.00	0.00	0.00	0.00	N/A
Off-Road Equipment:	0.00	0.00	0.00	0.00	N/A
Refrigerants:	N/A	N/A	N/A	N/A	N/A
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total				0.00	0.00%

Mitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*	99.99	0.00	0.00	99.99	96.32%
Area Source:	0.23	0.00	0.00	0.23	0.22%
Electricity:	0.00	0.00	0.00	0.00	0.00%
Natural Gas:	0.00	0.00	0.00	0.00	0.00%
Water & Wastewater:	3.59	0.00	0.00	3.60	3.46%
Solid Waste:	0.00	N/A	N/A	0.00	0.00%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	0.00	0.00%
Purchase of Offsets:	N/A	N/A	N/A	0.00	0.00%
Total				103.82	100.00%

Transportation

Baseline is Currently: OFF

	Target Year:		2013	2011
	Project	Baseline	Project-Baseline	
Unmitigated Transportation				
Operational Emissions from URBEEMIS (CO2 tons/year):	110.29	0.00		
Metric Ton Adjustment (CO2 metric tons/year):	100.08	0.00		
Pavley Regulation Adjustment (CO2 metric tons/year):	95.68	0.00		
US EPA Adjustment (CO2e metric tons/year):	100.72	0.00		
Low Carbon Fuels Rule Adjustment (CO2e metric tons/year):	99.99	0.00		
Total (CO2e metric tons/year):				99.99

	Target Year:		2013	2011
	Project	Baseline	Project-Baseline	
Mitigated Transportation				
Operational Vehicles from URBEEMIS (CO2 tons/year):	110.29	0.00		
Metric Ton Adjustment (CO2 metric tons/year):	100.08	0.00		
Pavley Regulation Adjustment (CO2 metric tons/year):	95.68	0.00		
US EPA Adjustment (CO2e metric tons/year):	100.72	0.00		
Low Carbon Fuels Adjustment (CO2e metric tons/year):	99.99	0.00		
Total (CO2e metric tons/year):				99.99

The BGM User's Manual describes in detail each step used to convert URBEEMIS's transportation CO2 emissions to total CO2e. These steps include converting from English to Metric units, adjusting for the Pavley Rule, converting CO2 to CO2e, and adjusting for the Low Carbon Fuels Rule.

Reference

U.S. EPA assumption that GHG emissions from other pollutants - CH4, N2O, and hydrofluorocarbons (HFCs) from leaking air conditioners account for 5 percent of emissions from vehicles, after accounting for global warming potential of each GHG.

Jump to the Following Transportation Related Tabs:

[Transportation Detail for Operational Mitigation](#)

[Land Use Detail](#)

Area Source

Baseline is currently: OFF

Unmitigated Area Source		Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):		0.227	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):		0.000	0.000	
Wood Burning Fireplaces (N2O metric tons/year):		0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):		0.000	0.000	
Wood Burning Stoves (CH4 metric tons/year):		0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):		0.000	0.000	
Total (CO2e metric tons/year):		0.227	0.000	0.227
Total (CO2e metric tons/year):				0.227

Mitigated Area Source		Project	Baseline	Project-Baseline
Landscaping Emissions from URBEMIS (CO2 metric tons/year):		0.227	0.000	
Hearth Emissions from URBEMIS (CO2 metric tons/year):		0.000	0.000	
Wood Burning Fireplaces (N2O metric tons/year):		0.000	0.000	
Natural Gas Fireplaces (N2O metric tons/year):		0.000	0.000	
Wood Burning Stoves (CH4 metric tons/year):		0.000	0.000	
Natural Gas Fireplaces (CH4 metric tons/year):		0.000	0.000	
Total (CO2e metric tons/year):		0.227	0.000	0.227
Total (CO2e metric tons/year):				0.227

The URBEMIS area source calculations include five separate categories: 1) natural gas fuel combustion, 2) hearth fuel combustion, 3) landscape maintenance equipment, 4) consumer products, and 5) architectural coatings. This Area Source tab imports CO2 emissions calculated by URBEMIS for hearths and landscape maintenance equipment only. BGM then calculates N2O and CH4 emissions for woodstoves and fireplaces and uses the resulting emissions to calculate CO2e. The consumer products and architectural coatings categories within URBEMIS do not generate GHG emissions and, consequently, are not used by BGM. Also, URBEMIS' estimate of CO2 from natural gas fuel combustion is not used by BGM. Instead, BGM calculates natural gas use and the resulting CO2 emissions in the Electricity and Natural Gas tab.

APPENDIX B

BIOTIC ASSESSMENT

BIOTIC ASSESSMENT

MINDEGO GATEWAY STUDY AREA SAN MATEO COUNTY, CALIFORNIA

NOVEMBER 2011

Prepared for:

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EXECUTIVE SUMMARY

At the request of Midpeninsula Regional Open Space District, Biosearch Associates and Coast Range Biological LLC conducted a biotic assessment for the Mindego Gateway project on the Silva and Mindego Ranch properties located in the southern portion of the Russian Ridge Open Space Preserve in San Mateo County, California. Project components include: (1) a commemorative site (including a concrete path, gathering area, and plein air painting deck), (2) a new, 20-25 stall parking lot and trailhead, located on a graded flat adjacent to Alpine Road; (3) a new multiuse trail, the “Ancient Oaks Connector Trail,” connecting the commemorative site/staging area to Ancient Oaks Trail to the north and Mindego Ridge Trail to the south; and (4) a new trail, “the Mindego Hill Trail,” on the Mindego Ranch property connecting the existing Mindego Ridge Trail with Mindego Hill. In addition, a portion of the existing Mindego Ridge Trail was included in the study area because it connects the commemorative site/staging area with the proposed Mindego Hill Trail, although no improvements or other ground disturbance are proposed for this existing dirt/gravel road.

Special-status plants are considered absent from the commemorative site/staging area and Mindego Hill Trail portions of the study area due to a lack of suitable habitat and/or because none were observed during previous focused surveys. The presence or absence of three special-status plant species—Santa Clara red ribbons (*Clarkia concinna* ssp. *automixa*), robust monardella (*Monardella villosa* ssp. *globosa*), and Dudley’s lousewort (*Pedicularis dudleyi*)—could not be determined for the proposed Ancient Oaks Connector Trail because some suitable habitat components are present and the field work occurred outside the blooming window of these species. A late spring/early summer plant survey is recommended to determine the presence or absence of these species on the proposed Ancient Oaks Connector Trail. Portions of the Mindego Ridge Trail could also provide suitable habitat for these species, but since no work or other ground disturbance is proposed for this section of trail, no additional botanical surveys are recommended.

Five special-status wildlife species were observed or detected by sign within or near the study area during the September 2011 field visits. San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) and American badger (*Taxidea taxus*) were detected along the proposed Ancient Oaks Connector Trail. California red-legged frog (*Rana draytonii*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), and western pond turtle (*Emys marmorata*) were observed at Mindego Lake, located off of the study area ~1,500 feet west of the proposed Mindego Hill Trail. Due to a lack of suitable habitat, California red-legged frog and San Francisco garter snake are considered to have a low potential to inhabit the study area. However during certain times of the year they could pass through the study area and thus may be affected by project construction and use. Western pond turtles could be affected, but only if a nest is placed in grassy habitat within the narrow trail corridors. An additional fourteen special-status wildlife species were considered to have a moderate or high potential for occurrence on the study area: white-tailed kite (*Elanus leucurus*), golden eagle (*Aquila chryseatos*), long-eared owl (*Asio otus*), Vaux's swift (*Chaetura vauxi*), Allen's hummingbird (*Selasphorus sasin*), Nuttall's woodpecker (*Picoides nuttallii*), olive-sided flycatcher (*Contopus cooperi*), oak titmouse (*Baeolophus inornatus*), grasshopper sparrow (*Ammodramus savannarum*), Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), Lawrence's goldfinch (*Carduelis lawrencei*), pallid bat (*Antrozous pallidus*), fringed myotis (*Myotis thysanodes*), and long-legged myotis (*Myotis volans*). Several other special-status species were considered but not analyzed in detail since the potential for occurrence was considered to be low. In addition, nesting habitat is available for a variety of non-listed native bird species, all of which are protected under the Migratory Bird Treaty Act and state Fish and Game Codes. Based on documented road-kill along nearby Alpine Road, a movement corridor for newts (both *Taricha torosa* and *T. granulosa* are

known from Mindego Ranch) is present across the commemorative site/staging area and portions of the proposed Ancient Oaks Connector Trail. Mitigation measures are recommended to address potential adverse impacts that may occur to wildlife species as a result of the proposed projects.

Six ephemeral drainage channels are present along the proposed Ancient Oaks Connector Trail and are potential jurisdictional waters. If feasible, the trail should be routed to avoid potential jurisdictional waters. If potential jurisdictional waters can't be avoided, a formal delineation should be conducted and the regulatory agencies contacted for verification. Blue Wild Rye Grassland, a sensitive habitat, occurs northwest of the commemorative site. This habitat will not be directly impacted by the proposed project, but due to the close proximity of the work area mitigation measures are recommended to address potential significant impacts.

TABLE OF CONTENTS

EXECUTIVE SUMMARYi

1.0 INTRODUCTION..... 1

2.0 METHODS..... 1

2.1 Literature Review..... 1

2.2 Field Studies.....7

 2.2.1 Special-status Species.....7

 2.2.2 Other Sensitive Biotic Resources7

3.0 PROJECT SITE AND STUDY AREA DESCRIPTION.....7

3.1 Habitats7

3.2 Soils and Hydrology.....9

4.0 RESULTS.....9

4.1 Special-status Plants.....9

4.2 Special-status Wildlife12

4.3 Other Sensitive Biological Resources.....21

5.0 POTENTIAL BIOLOGICAL IMPACTS AND PROPOSED MITIGATION MEASURES22

6.0 REFERENCES.....26

LIST OF FIGURES

Figure 1. Study area location map.2

Figure 2. Habitats on the study area.....4

Figure 3. Resources on the eastern portion of the study area.....6

Figure 4. CNDDDB map of the study area region.....10

APPENDICES

- Appendix A. Special-status species documented to occur in the study area region.
- Appendix B. Plant species observed on the study area during the September 2011 field visits.

1.0 INTRODUCTION

At the request of Midpeninsula Regional Open Space District (“District”), Biosearch Associates and Coast Range Biological LLC conducted a biotic assessment for the Mindego Gateway project on the Silva and Mindego Ranch properties located in the southern portion of the Russian Ridge Open Space Preserve in San Mateo County, California (“study area”) (Figure 1). Project components include: (1) a commemorative site (including a concrete path, gathering area, and plein air painting deck), (2) a new, 20-25 stall parking lot and trailhead, located on a graded flat adjacent to Alpine Road; (3) a new multiuse trail, the “Ancient Oaks Connector Trail,” connecting the commemorative site/staging area to Ancient Oaks Trail to the north and Mindego Ridge Trail to the south; and (4) a new trail, “the Mindego Hill Trail,” on the Mindego Ranch property connecting the existing Mindego Ridge Trail with Mindego Hill. In addition, a portion of the existing Mindego Ridge Trail was included in the study area because it connects the commemorative site/staging area with the proposed Mindego Hill Trail, although no improvements or other ground disturbance are proposed for this existing dirt/gravel road.

The study area for this biotic assessment, where habitats are mapped and evaluated for the potential presence of special-status biological resources, includes the work areas for the commemorative site/staging area, Ancient Oak Connector Trail, and Mindego Hill Trail (“project site”), the existing Mindego Ridge Trail, and adjacent areas extending outward ~100 feet (Figures 2 and 3). This biotic assessment addresses the potential for occurrence on the study area of special-status¹ plant and wildlife species and sensitive habitats. Potential significant impacts that may occur to these resources as a result of the project are identified and mitigation measures suggested to avoid or reduce impacts to less than significant levels.

2.0 METHODS

2.1 Literature Review

Prior to conducting field studies, a background literature search was conducted to determine which special-status species have potential to inhabit the study area region based on documented occurrences and range distribution (Appendix A). The primary sources for this search included the California Natural Diversity Data Base (CNDDB) (CDFG 2011), the CNPS Online Inventory (CNPS 2011), and the U.S. Fish and Wildlife Service (USFWS) (2011) records for the Mindego Hill, La Honda, Big Basin, and Franklin Point 7.5’ USGS quadrangles² (the study area is in the Mindego Hill quad). In addition, other lists and publications were consulted, including the CDFG Special Animals list (CDFG 2011b), Zeiner et al. (1988; 1990a; 1990b), Hickman (1993), the Consortium of California Herbaria (2011), and Biotic Resources Group (2011).

¹ Special-status species are defined here to include: (1) all plants and animals that are listed under the Federal or State Endangered Species Acts as rare, threatened or endangered; (2) all federal and state candidates for listing; (3) all federal Birds of Conservation Concern; (4) California Department of Fish and Game (CDFG) Species of Special Concern; (5) all Western Bat Working Group species considered High Priority; (6) all plants included in Lists 1 and 2 (and Lists 3 and 4 on a case-by case basis) of the California Native Plant Society (CNPS) Online Inventory (CNPS 2011); and (7) plants that qualify under the definition of “rare” in the California Environmental Quality Act (CEQA), section 15380.

² The initial raw species list was refined to remove species that are documented in the general region but are not expected to occur on the study area due to range limitation or extirpation, or occur in habitats obviously lacking from the study area, such as estuarine habitats. All remaining species were analyzed for their potential to occur on the study area (Appendix A).

Figure 1. Study area location map.

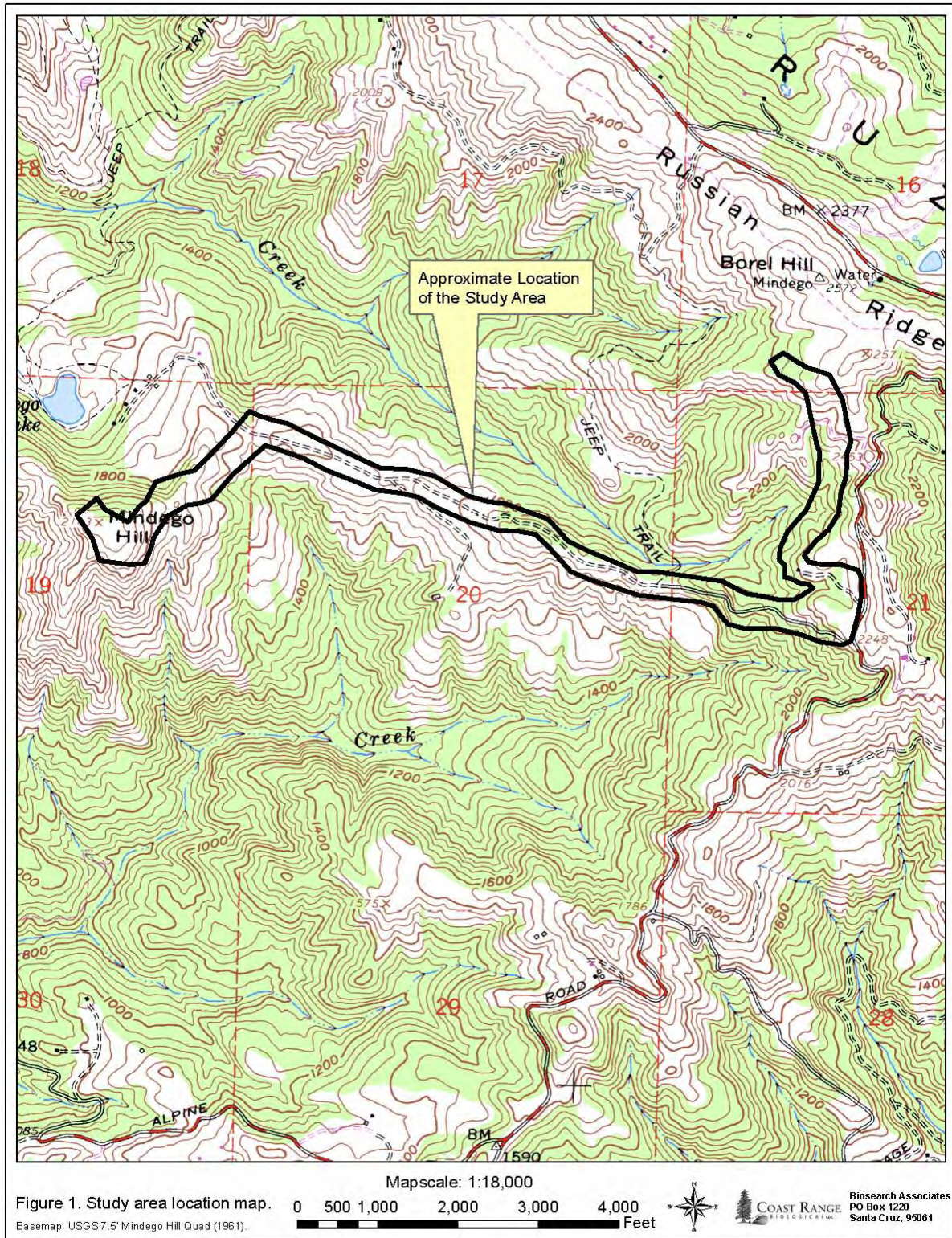


Figure 2. Habitats on the study area.

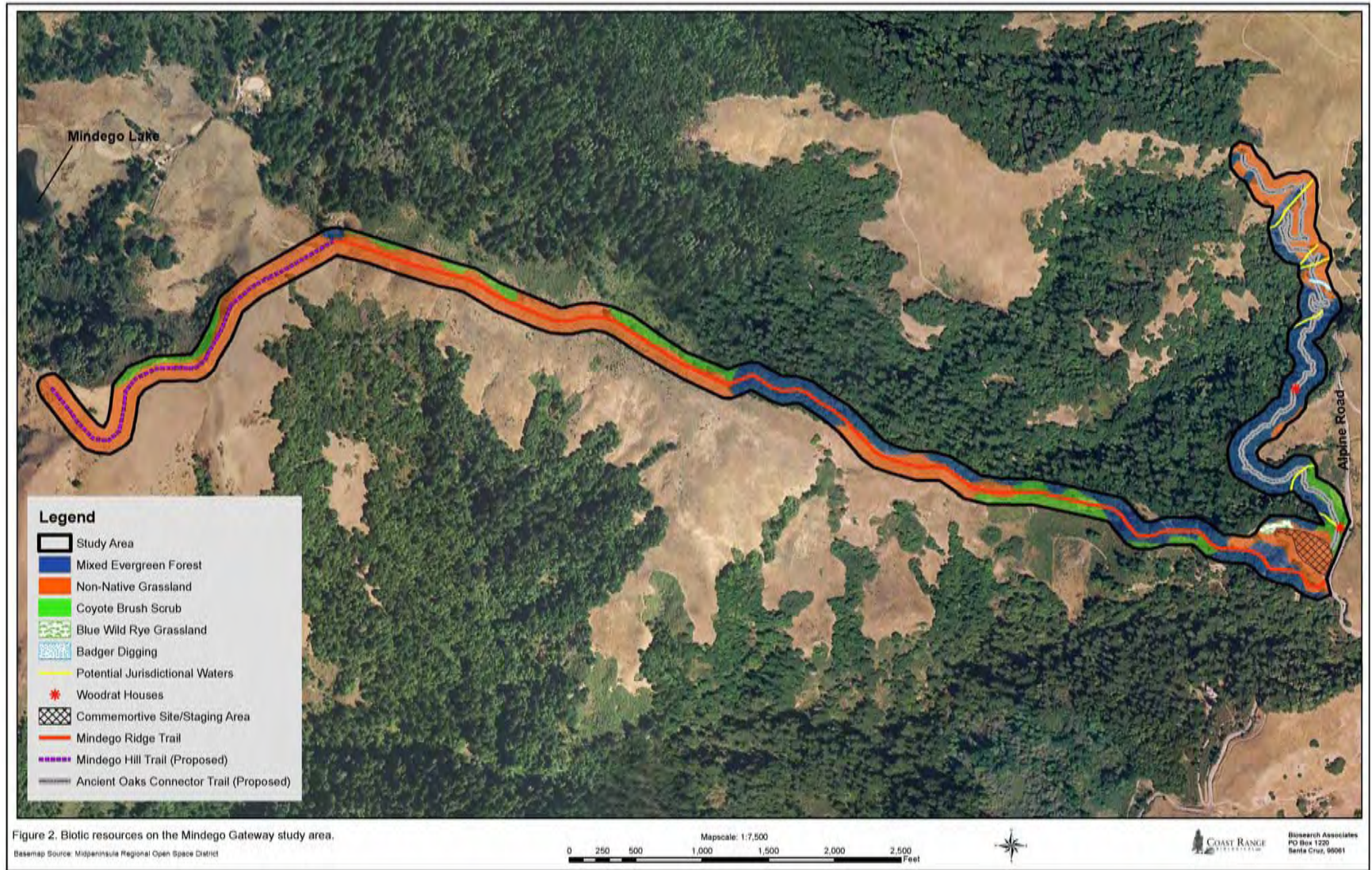
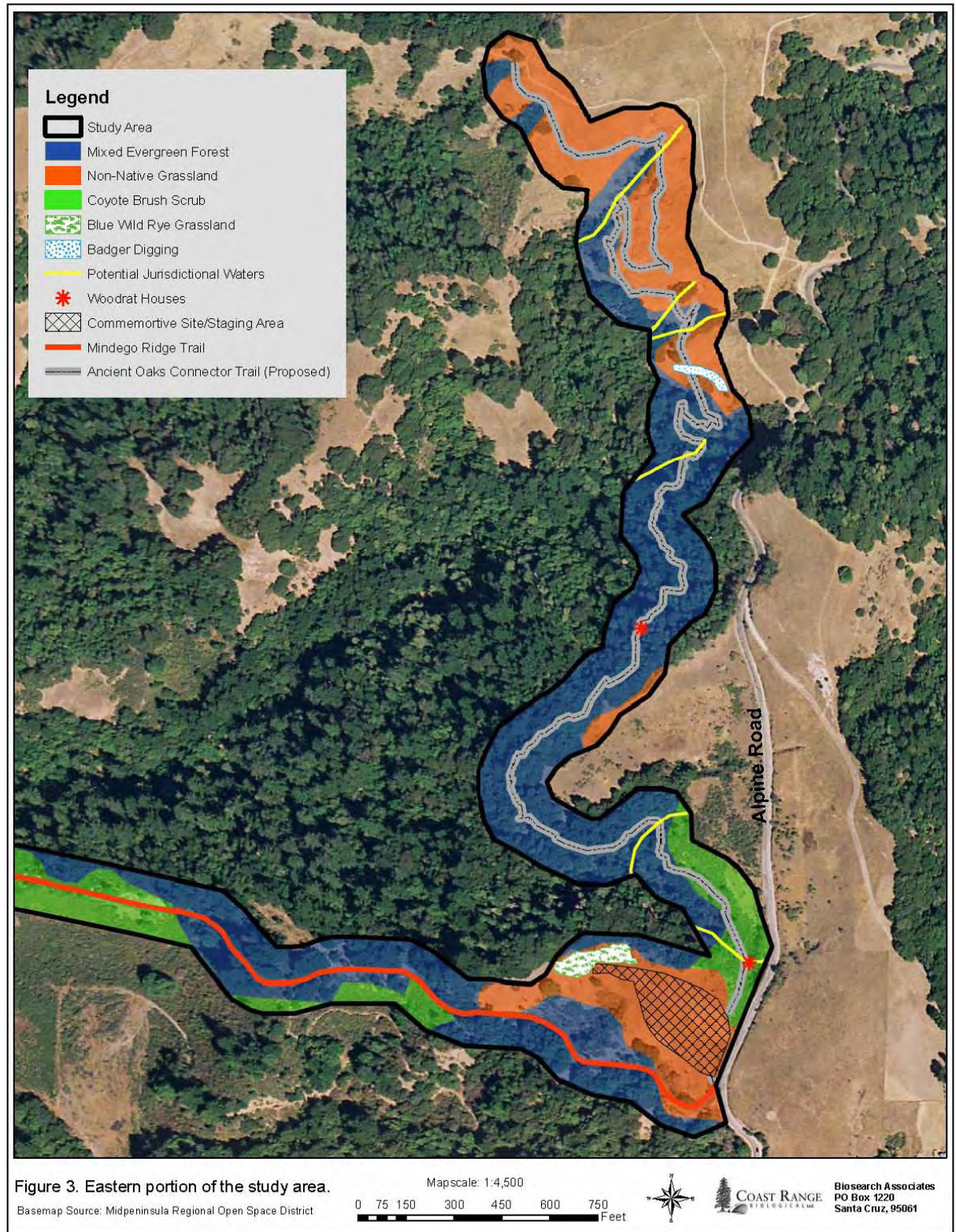


Figure 3. Resources on the eastern portion of the study area.



2.2 Field Studies

Plant Ecologist Tom Mahony and Wildlife Biologist Mark Allaback conducted reconnaissance-level field studies on 8, 12, 16, 20 and 29 September 2011 and prepared the report. Wildlife biologists David Laabs and Jeff Alvarez assisted with report preparation. The study area was traversed on foot to document habitat conditions to determine the potential for occurrence of special-status biotic resources. The potential for occurrence of special-status plant and wildlife species was assessed based on the presence of necessary habitat characteristics, confirmed records from the region, and the biologist's knowledge of the target species. Focused field surveys were not performed as part of this assessment. Special-status resources were mapped with a Trimble GPS unit (sub-meter accuracy). Field data were overlain on a color digital orthophoto (obtained from the District) using ArcGIS mapping software. Vegetation communities were mapped from existing District vegetation maps and modified based on field conditions.

2.1.1 Special-status Species

Potential for occurrence of special-status species was classified as follows: None, Low, Moderate, High, or Present. For species with a potential for occurrence of None or Low, microhabitat for the species was lacking or otherwise degraded or unsuitable, and the species was considered unlikely to inhabit the study area. Species were considered to have a Moderate or High potential for occurrence if suitable habitat was present and/or the species was documented to occur in the surrounding region. Species were considered Present on the study area if they were observed during field work and/or documented to occur on the study area during the background literature search.

2.1.2 Other Sensitive Biotic Resources

Other sensitive biotic resources searched for during the reconnaissance included wetlands, creeks, riparian areas, and rare or sensitive vegetation communities known from the region and identified in the CNDDDB (e.g., those listed with a State rank of S1-S3 [CDFG 2010]). A newt movement corridor, which was defined by observations of road-kill in recent years concentrated along a nearby segment of Alpine Road (Roessler, pers. comm.), was also analyzed.

3.0 PROJECT SITE AND STUDY AREA DESCRIPTION

The study area is located on the former Silva and Mindego Ranch properties in the southern portion of the Russian Ridge Open Space Preserve in San Mateo County, California (Figure 1). Elevations range between ~1,800 and ~2,300 feet (USGS 1961). The study area includes the footprints of the four project components and the existing Mindego Ridge Trail, and a ~100 foot buffer around these areas (Figures 2 and 3). The study area is impacted by past land uses including cattle grazing, dirt roads and trails, a former residence, and existing recreational use by hikers, mountain bikers, and equestrians. Land uses in the surrounding region consist primarily of undeveloped land in the Russian Ridge and Skyline Ridge Open Space Preserves.

3.1 Habitats

Commemorative Site/Staging Area

The area proposed for construction of the commemorative site and staging area is a heavily disturbed graded flat with compacted soils, base rock, and other surface disturbance adjacent to and west of Alpine Road (Figures 2 and 3). The dominant vegetation type is a ruderal phase of Non-Native

Grassland³/California annual grassland series⁴, dominated by non-native grasses and forbs including yellow star-thistle (*Centaurea solstitialis*⁵), wild oats (*Avena* sp.), wild radish (*Raphanus sativus*), soft chess (*Bromus hordeaceus*), Italian ryegrass (*Lolium multiflorum*), barley (*Hordeum murinum*), sheep sorrel (*Rumex acetosella*), hedgehog dogtail (*Cynosurus echinatus*), summer mustard (*Hirschfeldia incana*), and Italian thistle (*Carduus pycnocephalus*), with occasional native species including California poppy (*Eschscholzia californica*) and slender tarweed (*Madia gracilis*). A small area of Blue Wild Rye Grassland, a sensitive plant community, occurs northwest of the commemorative site (Biotic Resources Group 2011), dominated by blue wild rye (*Elymus glaucus*) and other native grasses and forbs including purple needlegrass (*Nassella pulchra*), soap plant (*Chlorogalum pomeridianum*), Kellogg's yampah (*Perideridia kelloggii*), and yarrow (*Achillea millefolium*) (Figures 2 and 3).

Ancient Oaks Connector Trail

The Ancient Oaks Connector Trail traverses three habitats: Non-Native Grassland, Mixed Evergreen Forest, and Coyote Brush Scrub (Figures 2 and 3). Non-Native Grassland occurs primarily in the northern portion of the trail alignment and is dominated by a less disturbed phase of the California annual grassland series than found at the commemorative site/staging area but with generally similar species composition consisting of dense cover of non-native grasses and forbs with occasional native species such as California poppy, yarrow, and purple needlegrass. Mixed Evergreen Forest, composed primarily of the Douglas-fir and Coast live oak series, is dominated by a canopy of native trees including Douglas-fir (*Pseudotsuga menziesii*), coast live oak (*Quercus agrifolia*), canyon live oak (*Quercus chrysolepis*), tanoak (*Lithocarpus densiflorus*), California bay (*Umbellularia californica*), California buckeye (*Aesculus californica*), big-leaf maple (*Acer macrophyllum*), and madrone (*Arbutus menziesii*). The understory consists of native shrubs and herbs including poison oak (*Toxicodendron diversilobum*), California hazelnut (*Corylus cornuta* var. *californica*), California blackberry (*Rubus ursinus*), wood rose (*Rosa gymnocarpa*), toyon (*Heteromeles arbutifolia*), oceanspray (*Holodiscus discolor*), wood fern (*Dryopteris arguta*), Douglas iris (*Iris douglasiana*), trailplant (*Adenocaulon bicolor*), and swordfern (*Polystichum munitum*).

Coyote Brush Scrub, composed primarily of the Coyote brush series, is dominated by coyote brush (*Baccharis pilularis*), with native shrubs and herbs present including poison oak, California blackberry, toyon, wood fern, sticky monkey flower (*Mimulus aurantiacus*), California coffeeberry (*Rhamnus californica*), blue elderberry (*Sambucus mexicana*), and California sagebrush (*Artemisia californica*).

Mindego Ridge Trail

The Mindego Ridge Trail is an existing multiuse trail connecting the commemorative site/staging area with the proposed Mindego Hill Trail (Figure 2). The portion of Mindego Ridge Trail on the study area passes through Mixed Evergreen Forest, Non-Native Grassland, and Coyote Brush Scrub. These habitats have been described above.

Mindego Hill Trail

Mindego Hill trail is a proposed hiking trail starting from the existing Mindego Ridge Trail and extending southwest up to Mindego Hill (Figure 2). The trail alignment will occur in a highly disturbed phase of Non-Native Grassland habitat dominated by non-native grasses and forbs similar to those described above, with a particularly dense concentration of soft chess, wild oats, Italian ryegrass, Italian thistle, and milk thistle (*Silybum marianum*).

³ Vegetation community nomenclature follows Holland (1986).

⁴ Vegetation series nomenclature follows Sawyer and Keeler-Wolf (1995).

⁵ Botanical nomenclature follows Hickman (1993) and CNPS (2011).

3.2 Soils and Hydrology

The principal hydrologic sources for the study area are direct precipitation, surface and sub-surface runoff from the surrounding watershed, and drainage through ephemeral tributaries to Mindego Creek, a USGS “blue line” stream that drains into Alpine Creek, San Gregorio Creek, and eventually the Pacific Ocean (USGS 1961). All observed drainage channels were along the Ancient Oaks Connector Trail and were dry at the time of the September 2011 field visits. Mindego Lake, a perennial, spring-fed pond, occurs outside the study area ~1,500 feet west of the proposed Mindego Hill Trail.

Numerous soil types have been mapped for the study area (NRCS 2011), including: Mindego stony clay loam, very steep; Laughlin-Sweeney loams, very steep, eroded; Rough broken land; Santa Lucia loam, moderately steep, eroded; Santa Lucia loam, very steep, eroded; Sweeney stony clay loam, steep, eroded; and Sweeney stony clay loam, very steep, eroded. These soils are well-drained, generally loam or stony clay loam-textured in the upper part, and derived from shale, sandstone, or basalt.

4.0 RESULTS

4.1 Special-status Plants

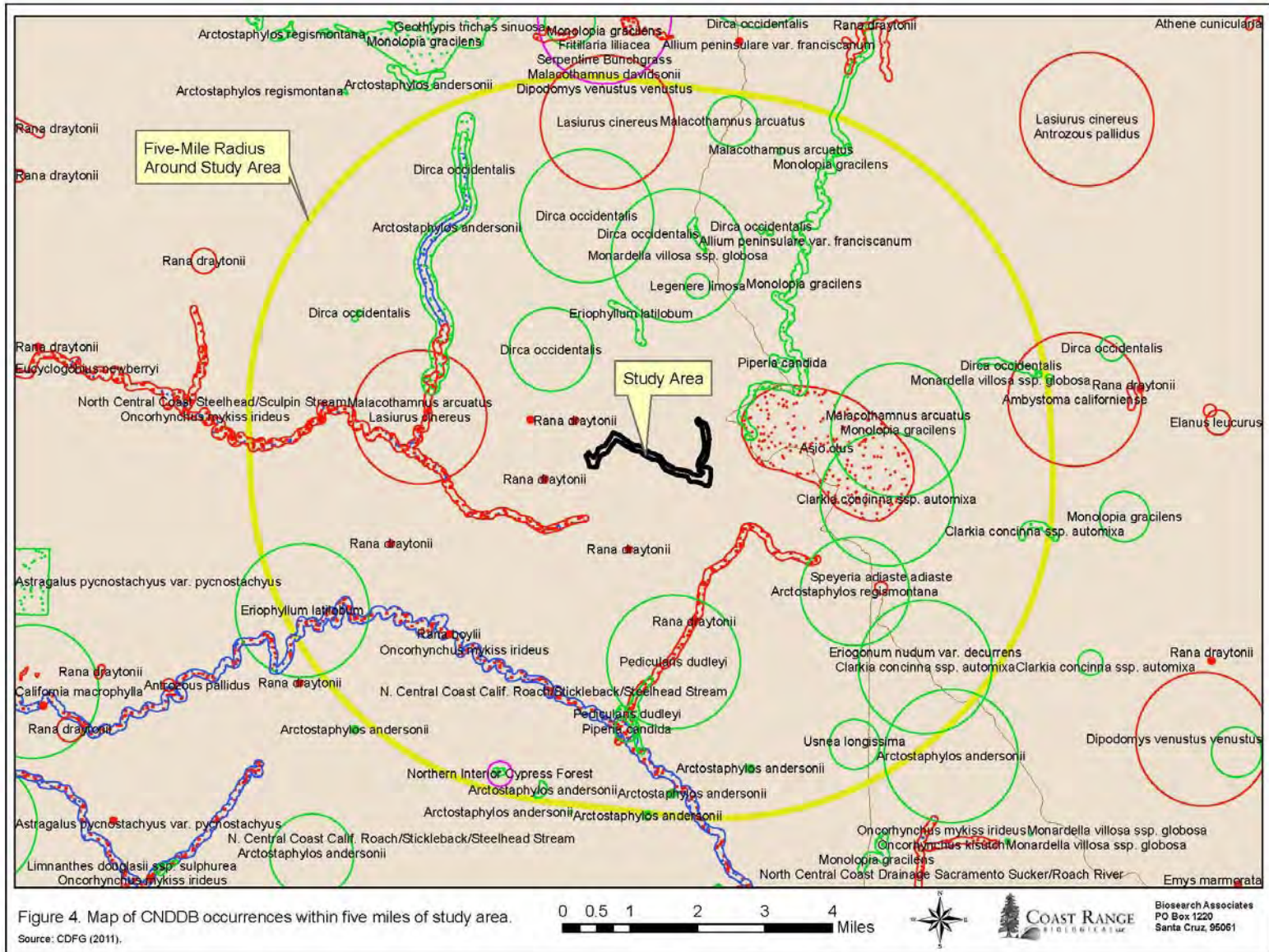
Eighteen special-status plant species are documented to occur in the study area region based on the background literature search discussed in Section 2.1. A list of these species, their status, and their typical habitats is presented in Appendix A. A search of the September 3, 2011 CNDDDB GIS database found no documented occurrences⁶ of special-status plant species on the study area (Figure 4). During the September 2011 field visits, 119 plant species were observed on the study area (Appendix B). None of these are special-status plants, but the field visits occurred outside the typical blooming period of most plant species, and no focused surveys were conducted.

Special-status plants are considered absent from the commemorative site/staging area because focused surveys for special-status plants were conducted in May 2011 and none were found (Biotic Resources Group 2011). In addition, special-status plants are considered absent from the proposed Mindego Hill Trail because of the dense cover of non-native grasses and forbs (particularly soft chess and Italian ryegrass), the lack of open or otherwise suitable microhabitats or plant communities, and because no special-status plants have been documented in the vicinity (CDFG 2011) or observed during previous field visits on Mindego Ranch conducted by District staff on 7 May and 31 July 2008 (District unpublished data).

Portions of Non-Native Grassland on the proposed Ancient Oaks Connector Trail support some open microhabitats (bare soil, rock outcrops) and occasional native species, such as blue wild rye, purple needle grass, California poppy, and yarrow, and could, along with Mixed Evergreen Forest, provide some suitable habitat components for three special-status species known from the region: Santa Clara red ribbons (*Clarkia concinna* ssp. *automixa*), robust monardella (*Monardella villosa* ssp. *globosa*), and Dudley’s lousewort (*Pedicularis dudleyi*) (Appendix A). Due to the presence of some suitable habitat components for these species, documented occurrences within two miles, and because the field visits occurred outside the blooming window of these species, a focused survey during the appropriate blooming period would need to be conducted to definitively determine their presence or absence. These species are discussed below. Similar habitats along the Mindego Ridge Trail could also provide suitable habitat, but since no work or other ground disturbance is proposed for this area, no additional botanical

⁶ The lack of documented occurrences does not necessarily mean that a species does not occur in an area, only that no occurrences have been reported.

Figure 4. CNDDDB map of the study area region.



surveys are recommended for Mindego Ridge Trail.

Santa Clara red ribbons (*Clarkia concinna* ssp. *automixa*); Status: CNPS List 4.3

Santa Clara red ribbons is an annual herb in the Onagraceae family. It has no federal or state status, but is on CNPS List 4.3 (plants of limited distribution/ not very threatened in California). It typically occurs in chaparral and cismontane woodland, between 295 and 4,920 feet elevation, blooming between May and June (CNPS 2011). The nearest documented occurrence is ~1.6-mile east of the study area (CDFG 2011). Suitable habitat for Santa Clara red ribbons occurs on the study area in Mixed Evergreen Forest.

Robust monardella (*Monardella villosa* ssp. *globosa*); CNPS List 1B.2

Robust monardella is a perennial rhizomatous herb in the Lamiaceae family. It has no federal or state status, but is on CNPS List 1B.2 (plants rare, threatened, or endangered in California and elsewhere/ fairly endangered in California). It typically occurs in broadleaved upland forest (openings), chaparral (openings), cismontane woodland, coastal scrub, and valley and foothill grassland, between 330 and 3,000 feet elevation, blooming between June and August (CNPS 2011). The nearest documented occurrence is ~2-miles north of the study area (CDFG 2011). Suitable habitat for robust monardella occurs in Mixed Evergreen Forest and Non-Native Grassland.

Dudley's lousewort (*Pedicularis dudleyi*); Status: CNPS List 1B.2, State Rare

Dudley's lousewort is a perennial herb in the Orobanchaceae family. It is listed as Rare by the State of California, and is on CNPS List 1B.2 (plants rare, threatened, or endangered in California and elsewhere/ fairly endangered in California). It typically occurs in maritime chaparral, cismontane woodland, North Coast coniferous forest, and valley and foothill grassland, between 200 and 2,950 feet elevation, blooming between April and June (CNPS 2011). The nearest documented occurrence is ~2-miles south of the study area (CDFG 2011). Suitable habitat for Dudley's lousewort occurs on the study area in Mixed Evergreen Forest and Non-Native Grassland.

4.2 Special-status Wildlife

Twenty-five special-status wildlife species were analyzed for their potential occurrence on the study area because they: (1) occur in habitats present in the general vicinity of the study area, and (2) have ranges that include the study area (Appendix A). A search of the September 3, 2011 CNDDDB GIS database found no documented occurrences of special-status wildlife species on the study area (Figure 4), but two special-status wildlife species, San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) and American badger (*Taxidea taxus*), were detected by sign on the study area during the September 2011 field visits (Figures 2 and 3). Also in September 2011, three additional special-status wildlife species, California red-legged frog (*Rana draytonii*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) and western pond turtle (*Emys marmorata*) were observed outside the study area at Mindego Lake, ~1,500 feet west of the proposed Mindego Hill Trail. As discussed in detail below, all three of these species could occur on portions of the study area during certain times of the year.

An additional fourteen special-status wildlife species were considered to have a moderate or high potential for occurrence on the study area: white-tailed kite (*Elanus leucurus*), golden eagle (*Aquila chryseatos*), long-eared owl (*Asion otus*), Vaux's swift (*Chaetura vauxi*), Allen's hummingbird (*Selasphorus sasin*), Nuttall's woodpecker (*Picoides nuttallii*), olive-sided flycatcher (*Contopus cooperi*), oak titmouse (*Baeolophus inornatus*), grasshopper sparrow (*Ammodramus savannarum*), Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), Lawrence's goldfinch (*Carduelis lawrencei*), pallid bat (*Antrozous pallidus*), fringed myotis (*Myotis thysanodes*), and long-legged myotis (*Myotis*

volans). In addition, trees and shrubs on the study area provide nesting habitat for other non-listed bird species protected under the Migratory Bird Treaty Act (MBTA) and state Fish and Game Codes. These species are discussed below. The remaining special-status wildlife species analyzed are considered absent or to have a low potential to inhabit the study area, and it is therefore unlikely they would be adversely impacted by the proposed project (Appendix A). These species are not discussed further.

California Red-legged Frog (*Rana draytonii*), Federal Status: Threatened; State Status: Species of Special Concern

The California red-legged frog (CRLF) is a large (85-138 mm) anuran that historically occupied much of central and southern California. The species requires still or slow-moving water during the breeding season, where it deposits large egg masses, usually attached to submerged or emergent vegetation. Breeding typically occurs between December and April, depending on annual environmental conditions and locality. Eggs require 6 to 12 days before hatching and metamorphosis often occurs 3.5 to 7 months after hatching although larvae may overwinter (Stebbins 2003; Fellers, et al. 2001). Following metamorphosis between July and September, post-metamorphic juveniles (metamorphs) generally do not travel far from aquatic habitats, although they will disperse from a drying pond (Allaback, pers. observ.). Movements of metamorphs and adults generally occur with the first rains of the weather-year, in response to receding water, or following the breeding season (Fellers and Kleeman 2007; Allaback, et al. 2010). Radio-telemetry data indicates that individuals generally engage in straight-line movements irrespective of riparian corridors and can move up to two miles (Bulger, et al. 2003; Fellers and Kleeman 2007). California red-legged frogs utilize a variety of water sources during the non-breeding season, and females are more likely than males to depart from perennial ponds shortly after depositing eggs (Fellers and Kleeman 2007). They may take refuge in small mammal burrows, leaf litter or other moist areas during periods of inactivity or whenever it is necessary to avoid desiccation (Rathbun, et al. 1993; Jennings and Hayes 1994). Occurrence of this frog has shown to be negatively correlated with presence of introduced bullfrogs and/or fish (Moyle 1973; Hayes and Jennings 1986, 1988; Alvarez, et al. 2003).

CRLF were observed at Mindego Lake during the September 2011 surveys and during a previous biological study (Condor Country Consulting 2009). While no suitable aquatic habitat is present, CRLF could temporarily use the various vegetation communities within the study area during movements between Mindego Lake and ponds and foraging and sheltering habitat in the surrounding region, including east of Alpine Road. Although the likelihood that CRLF may reside within the study area even temporarily is considered low, mitigation measures to address potential significant impacts to the species are included in Section 5.0 since the species is listed as Threatened.

Western Pond Turtle (*Actinemys marmorata*), Federal Status: None; State Status: Species of Special Concern.

The western pond turtle (WPT) ranges from western Washington to northern Baja California, mostly west of the Sierra Nevada-Cascade crest (Stebbins 2003; Ernst et al. 1994). It inhabits permanent freshwater ponds, lakes, marshes, streams and rivers (Bury and Holland 1993). Pond turtles favor sites with deep pools and with an abundance of basking sites, such as partially submerged logs or rocks, matted emergent vegetation or exposed shorelines. Undercut banks, root masses and boulder piles provide underwater escape cover (Bury and Holland 1993). Western pond turtles can move across terrestrial habitats in response to fluctuating water level, an apparent adaptation to the variable rainfall and unpredictable flows that occur in many coastal California drainage basins (Rathbun et al. 1992). In addition, they can overwinter on land or in water or remain active in the winter, depending on environmental conditions (Rathbun et al. 1993; Jennings and Hayes 1994). Females travel from aquatic sites into open, grassy areas to lay eggs in a shallow nest (Holland 1992; Rathbun et al. 1992). Nests have been reported from up to 500 meters from water bodies (Jenning and Hayes 1994). During dispersal, pond turtles can move up to

two kilometers in search of suitable habitat and can tolerate a minimum of seven days without water (Jennings and Hayes 1994).

WPT was observed outside the study area ~1,500 feet west of the proposed Mindego Hill Trail at Mindego Lake during the September 2011 field surveys and during a previous biological survey (Condor Country Consulting 2009). The study area does not support suitable aquatic habitat for the species, but Non-Native Grassland habitat could provide nesting habitat. Potential WPT aquatic habitat is also present offsite at other ponds in the area. Mitigation measures to address potential significant impacts to WPT nesting habitat are included in Section 5.0.

San Francisco Garter Snake (*Thamnophis sirtalis tetrataenia*), Federal Status: Endangered; State Status: Endangered, Fully Protected

The San Francisco garter snake (SFGS) is found only on the San Francisco peninsula in San Mateo County and the northern portion of Santa Cruz County (Barry 1978; Brode 1990; USFWS 2006). It is an extremely colorful snake with a bright orange-red head, blue belly, greenish-yellow dorsal stripe and red and black stripes along either side. It grows to a length of three to four feet (Stebbins 2003). It occupies uplands in proximity to freshwater marshes, ponds, sloughs, and associated riparian corridors, especially where dense shoreline vegetation is present. Aquatic sites provide prey. Adult SFGS feed primarily on larger frogs including California red-legged frogs and American bullfrogs (*Lithobates catesbeianus*), but they may also take fish, salamanders, newts and earthworms. Young Pacific treefrogs (*Pseudacris regilla*) appear to be an important part of the diet of young snakes (Larsen 1994). Larsen *et al.* (1991) found that neonate, or newborn, SFGS showed preference for Pacific treefrog and California slender salamander (*Batrachoceps attenuates*).

The SFGS uses a variety of upland habitats including grassland, woodland and coastal scrub. During the winter, it is generally inactive underground in rodent burrows or other cover but may emerge during warm periods (Larsen 1994). From spring through the fall, it is typically found near dense vegetation along ponds or marshes and adjacent scrub and open upland habitat for temperature regulation and cover. To escape potential predators, it often retreats to dense vegetation, nearby holes or across water to reach vegetative cover. Females produce between 12 and 24 live young in July or August. Those neonates that survive through the first winter, may disperse following emergence in the spring. A recent demographic study in coastal San Mateo County indicated a stable population at a localized area managed currently for conservation purposes (Halstead *et al.* 2011). Much of the range of the SFGS lies within a heavily urbanized area, and alteration and isolation of habitats has been identified as the primary threats to the subspecies (Brode 1990; USFWS 2006). Agricultural development, poorly managed cattle grazing, and illegal collecting have also been implicated in its decline.

Although no studies have been published to determine home range, McGinnis, *et al.* (1987) reported SFGS up to ~450 feet from water. A study of SFGS in coastal San Mateo County (Halstead *et al.* 2011), found SFGS up to ~700 feet from aquatic habitat, with the greatest trap success near wetland and pond margins (Halstead, pers. comm). No data are available regarding SFGS dispersal distances. Since 2009, there have been at least 36 SFGS sightings within ~900 feet of aquatic habitat in Mindego, Knuedler, or Upper Lakes, and 35 of those occurrences were within 500 feet of aquatic habitat (Condor Country Consulting 2009; District and Biosearch unpublished data). An additional occurrence was reported along Mindego Ridge Trail ~3,500 feet ESE of Upper Lake. Four of these occurrences were on a road or trail. When the species (*Thamnophis sirtalis*) is viewed as a surrogate, it is known to move significant distances: 2.5 to 10.9 miles between foraging sites and hibernation sites (Gregory and Stewart 1975). Gregory and Stewart (1975) suggested that dispersal can be over distance of 11 miles. Fitch (1965) found an activity range (~home range) of 35 acres in males and 23 acres in females.

While no suitable aquatic habitat is present for SFGS within the footprint of the study area, the species could traverse the study area during dispersal movements between Mindego Lake and ponds in the surrounding region. Although the likelihood that SFGS would inhabit any portion of the study area is considered low, mitigation measures to address potential significant impacts are included in Section 5.0, since the species is listed as both Endangered and Fully-Protected.

White-tailed Kite (*Elanus leucurus*), Federal Status: None, State Status: Fully Protected.

The white-tailed kite is a medium-sized raptor that occupies low-elevation grassland, agricultural, wetland, oak woodland and oak savanna habitats (Dunk 1995). The species is distributed throughout the coastal foothills and valleys along the entire length of the state, throughout the Central Valley, and into the foothills of the Sierra Nevada (Dunk 1995). It nests in a wide variety of trees and shrubs, either isolated or part of larger stands. Typically, four eggs are laid in February and March and chicks hatch after 30-32 days. Juveniles often share their parent's home range for at least one season. During the non-breeding season, the species roosts communally. Nearby open areas are required for foraging, and the species will use certain types of agricultural fields. Food habit studies have demonstrated that voles make up a large proportion of its diet, although other small mammals, birds and insects are also eaten (Dunk 1995). The species hunts during the day primarily by hovering and searching for prey. White-tailed kites in California are generally resident, although they may occupy different areas during the non-breeding and breeding seasons. The species underwent a dramatic reduction in numbers due to habitat loss and hunting, and was extirpated throughout much of its range in the early 1900s. Between the 1940s and early 1980s, the population recovered and its range expanded. More recently, population declines have again been noted, possibly as a result of the conversion of agricultural lands to urban uses (Dunk 1995).

The white-tailed kite is considered a regular but uncommon breeder in San Mateo County and it has nested above 2,200-feet in the nearby Monte Bello Open Space Preserve (Metropulos 2006; Bousman 2007). Non-Native Grassland provides foraging habitat for white-tailed kite, and mature trees on the study area could provide nesting habitat. Mitigation measures to address potential significant impacts to the species are included in Section 5.0.

Golden Eagle (*Aquila chryseatos*), Federal Status: Bird of Conservation Concern; State: Fully Protected.

The golden eagle is a large, wide-ranging raptor that inhabits grassland and savanna habitats in hilly and mountainous terrain. Golden eagles require extensive areas of habitat for feeding and maintaining territories, with nesting territories estimated to range up to 36 square miles. In California, ground squirrels and hares are primary food sources, but the species will also eat carrion (Zeiner, et al. 1990a). Nests are built at remote sites with a vantage of the surrounding area. Nests are usually placed on escarpments, in tall trees, or occasionally on human-made structures such as transmission towers (Kochert, et al. 2002). Successful nests are re-used in subsequent years, progressively becoming enlarged. Lead poisoning, human disturbances near nest sites, collisions with transmission wires and wind turbines, agricultural and urban development of grasslands are identified as threats to golden eagles (Kochert, et al. 2002). The golden eagle is listed as a Species of Special Concern and as "fully protected" by CDFG. It is also listed as a Bird of Conservation Concern by the USFWS.

The golden eagle has been documented at scattered nests in the vicinity of the study area (Sequoia Audubon Society 2001; Bousman 2007). Potential nesting and foraging habitat is present in proximity to the study area.

Long-eared owl (*Asio otus*), Federal Status: None, State Status: Species of Special Concern.

The long-eared owl is a medium-sized, nocturnal raptor that is widely distributed across the continental United States and Canada. It nests and roosts in trees that are densely vegetated and forages in nearby open habitats including grassland and scrub habitats. It forages primarily on small mammals (<100 grams) such as voles (*Microtus* sp.), kangaroo rats (*Dipodomys* sp.) and deer mice (*Peromyscus* sp.) (Marks, et al. 1994). Long-eared owls usually do not build their own nests but take over stick nests built by species such as American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), Cooper's hawk (*Accipiter cooperii*) and other raptors. The long-eared owl is listed as a Species of Special concern by the CDFG.

The long-eared has been confirmed to nest at Monte Bello Open Space Preserve in Santa Clara County approximately 2 miles east of the study area (Bousman 2007). Potential nesting habitat is present along the Ancient Oaks Connector Trail and in the woodlands adjacent to the Mindego Ridge Trail and Mindego Hill Trail.

Vaux's swift (*Chaetura vauxi*), Federal Status: None, State Status: Species of Special Concern.

The Vaux's swift ranges from Monterey County north along the coast into Oregon and across the Cascade Range and throughout the Sierra Nevada Mountains (Hunter 2008). The highest densities in the state are restricted to the narrow coastal zone of northern and central California (Sterling and Paton 1996). In northwestern California, the species nests and roosts primarily in redwood trees, using basal hollows, cavities, stumps and broken-topped snags (Hunter and Mazurek 2003). It typically nests in tree cavities but will also sometimes use artificial structures, especially chimneys. Nesting in chimneys appears to be increasing although this may be due to observer bias (Hunter 2008). During migration, large numbers will roost colonially. The Vaux's swift is designated as a Species of Special Concern by CDFG.

Vaux's swift has been reported nesting at the nearby Skyline Ridge Open Space Preserve, and the species is considered to be a regular but uncommon breeder in San Mateo County (Sequoia Audubon Society 2001; Metropulos 2006). During breeding bird atlas field work from 1991-1997, Vaux's swift was considered to be a "probable breeding species" within the Alpine Road, Mindego Hill and Russian Ridge survey block (a 5 km square area) (Sequoia Audubon Society 2001). Potential nesting and roosting habitat was observed in scattered snags along the Ancient Oaks Connector Trail.

Allen's Hummingbird (*Selasphorus sasin*), Federal Status: Bird of Conservation Concern, State Status: None.

Allen's hummingbird breeds in a narrow band along the coast of California and southern Oregon and winters from Central California south through Baja and Central Mexico. Nesting habitat in the San Francisco Bay region includes mixed evergreen forest, redwood forests, riparian woodland, nonnative eucalyptus and cypress groves, and occasionally live oak woodlands and coastal scrub with scattered trees (Mitchell 2000). In addition to nectar, insects are taken, especially spiders. Allen's hummingbird is an extremely early migrant, and arrives on nesting grounds in January and February (Mitchell 2000). Males engage in a distinct J-shaped flight pattern when courting females. Nests are often clustered and semi-colonial. Females typically produce two broods. The species was recently added to the federal Birds of Conservation Concern primarily due to its restricted breeding range.

Allen's hummingbird was observed during the breeding season at Mindego Ranch (Condor County Consulting 2009). It is considered to be a regular and common breeder in San Mateo County and has nested near the crest of the Santa Cruz Mountains in the nearby Monte Bello Open Space Preserve (Metropulos 2006; Bousman 2007). During breeding bird atlas field work from 1991-1997, Allen's

hummingbird was considered to be a "probable breeding species" within the Alpine Road, Mindego Hill and Russian Ridge survey block (a 5 km square area) (Sequoia Audubon Society 2001). Potential nesting habitat is available in the woodland and scrub habitats within the study area.

Nuttall's Woodpecker (*Picoides nuttallii*), Federal Status: Bird of Conservation Concern, State Status: None.

Nuttall's woodpecker ranges from extreme northern Baja to northern California west of the deserts and the Sierra Nevada divide. It is typically associated with oak woodlands, but will also occur in riparian woodlands and chaparral areas (Lowther 2000). It feeds primarily on insects it gleanes from the underside of leaves in trees and on the ground, and also eats some vegetation. It often nests in snags along riparian areas. Males perform most of the incubation. Pairs remain on territories all year round. The species was recently added to the federal Birds of Conservation Concern primarily due to its restricted breeding range.

Nuttall's woodpecker is considered to be a regular and fairly common breeder that has been increasing in recent years in San Mateo County (Metropulos 2006). It has also nested near the crest of the Santa Cruz Mountains in nearby Santa Clara County (Bousman 2007). Potential nesting habitat is available throughout the woodland within the study area.

Olive-sided flycatcher (*Contopus cooperi*), Federal Status: Bird of Conservation Concern, State Status: Species of Special Concern.

The olive-sided flycatcher nests throughout much of Canada and the western United States and winters in South America (Altman et al. 2000). It inhabits woodland and forest habitats generally near edges and openings. It prefers coniferous trees but the species also uses eucalyptus forest near the coast (Widdowson 2008). The species is quite vociferous and is often seen calling from the tops of prominent trees. It feeds on insects, especially bees and wasps, and builds a cup nest well away from the trunk of trees (Widdowson 2008). The species may depend on forest fires and other natural or man-made disturbances to create a habitat mosaic with edges and openings (Widdowson 2008). The olive-sided flycatcher is designated as a Species of Special Concern by CDFG and a Bird of Conservation Concern by USFWS.

During breeding bird atlas field work from 1991-1997, the olive-sided flycatcher was confirmed to be nesting within the Alpine Road, Mindego Hill and Russian Ridge survey block (a 5 km square area) (Sequoia Audubon Society 2001). It is a fairly common nesting species in the coniferous woodlands of the Santa Cruz Mountains (Bousman 2007). Potential nesting habitat is present along the Ancient Oaks Connector Trail and in the woodlands adjacent to the Mindego Ridge Trail and Mindego Hill Trail.

Oak Titmouse (*Baeolophus inornatus*), Federal Status: Bird of Conservation Concern, State Status: None.

The oak titmouse ranges from extreme northern Baja California through California (Coast, Transverse, and Peninsular Ranges and western foothills of Sierra Nevada) into southwest Oregon (Cicero 2000). It inhabits open woodland habitats, including oak woodland, oak-pine woodlands, and pinyon-juniper woodlands (Cicero 2000). It feeds primarily on seeds and terrestrial invertebrates, while plant material makes up most of its diet in the fall and winter. Oak titmouse is not migratory and remains territorial all year round. It nests in woodpecker or natural cavities and will use artificial nest boxes. Mates typically remain together from year to year. The species was recently added to the federal Birds of Conservation Concern primarily due to its restricted breeding range.

Oak titmouse was observed during the breeding season at Mindego Ranch (Condor Country Consulting 2009). During breeding bird atlas field work from 1991-1997, the oak titmouse was confirmed to be

nesting within the Alpine Road, Mindego Hill and Russian Ridge survey block (a 5 km square area) (Sequoia Audubon Society 2001). It is considered to be a regular and common to abundant breeder in San Mateo County (Metropulos 2006). Potential nesting habitat is available throughout the oak woodland within the study area.

Grasshopper Sparrow (*Ammodramus savannarum*), Federal Status: None, State Status: Species of Special Concern.

The grasshopper sparrow is a small to medium sized sparrow that is widely distributed in North America and Central America. Although not well-studied in California, it is generally associated with short to middle-height grasslands and little to no shrub cover (Unitt 2008). The species can also be found in pastures and certain agricultural fields. It feeds primarily on insects but also eats a significant amount of vegetation including seeds. Grasshopper sparrows nest on the ground between April and July and normally produce 4 or 5 eggs (Rising and Beadle 1996). They are thought to be loosely colonial during the breeding season although numbers in any one area may change over time. In California, the species breeds in appropriate habitat along much of the coast and is also found in scattered localities in the western foothills of the Sierra Nevada (Small 1994). During the winter, much of the breeding population in the northern portion of the state migrates to southern California. Due to the widespread conversion of grasslands, populations in California have declined drastically in recent years. It is designated as a Species of Special Concern by CDFG.

The grasshopper sparrow breeds in the Russian Ridge Open Space Preserve (Sequoia Audubon Society 2001). During breeding bird atlas field work from 1991-1997, the grasshopper sparrow was considered to be a "probable breeding species" within the Alpine Road, Mindego Hill and Russian Ridge survey block (a 5 km square area) (Sequoia Audubon Society 2001). It has also nested in the grasslands of the nearby Monte Bello Open Space Preserve and is considered to be a regular and fairly common breeder in localized areas of San Mateo County (Metropulos 2006; Bousman 2007). Potential habitat is available throughout the grasslands within the study area.

Bryant's Savannah Sparrow (*Passerculus sandwichensis alaudinus*), Federal Status: None, State Status: Species of Special Concern.

Bryant's savannah sparrow is restricted to the coast range from Humboldt Bay, Humboldt County, to around Morro Bay, San Luis Obispo County, although some localized populations may occur further south (Fitton 2008). This subspecies prefers tidally influenced habitats, often with pickleweed, as well as moist grasslands often near swales and sometimes drier grasslands (Fitton 2008). Approximately 50% of its annual diet is animal matter (breeding season) and 50% is seeds and fruit (primarily during the winter). It builds open-cup nests on the ground or within 10 cm of the ground usually in dense grassy clumps or under matted grasses or forbs. Subspecies intermingle in flocks during the winter months and distinguishing among subspecies is difficult in the field, so little is known about their ecology during the non-breeding season. Bryant's savannah sparrow is designated as a Species of Special Concern by CDFG.

Bryant's savannah sparrow is known to nest in the Russian Ridge Open Space Preserve (Sequoia Audubon Society 2001; Bousman 2007). It is considered to be a regular and common breeder in San Mateo County (Metropulos 2006). Appropriate habitat is available throughout the grasslands onsite although areas with dense, homogenous thatch reduce habitat quality.

Lawrence's Goldfinch (*Carduelis lawrencei*), Federal Status: Bird of Conservation Concern, State Status: None.

The Lawrence's goldfinch is endemic to the arid woodlands in the foothills of California and northern Baja California. The species is erratic in its movements and shows great variability in local occurrence. In California, the species feeds primarily on the seeds of native plants including fiddleneck (*Amsinckia* sp.) in summer and chamise (*Adenostoma fasciculatum*) in winter. The species generally nests in open woodlands in proximity to foraging areas and water (Davis 1999). In central California, the species is migratory, and adults generally arrive to nest in early April. Very little is known regarding population dynamics and demographics. Loss of oak woodland and chaparral habitat may have contributed to population declines, although it has benefited from certain human-related disturbances that have increased its food sources (Davis 1999). The Lawrence's goldfinch is listed as a Bird of Conservation Concern by the USFWS.

During breeding bird atlas field work from 1991-1997, Lawrence's goldfinch was confirmed to be nesting within the Alpine Road, Mindego Hill and Russian Ridge survey block (a 5 km square area) (Sequoia Audubon Society 2001). Although it is considered to be an uncommon, irregular breeder in San Mateo County, it was also confirmed to breed on adjacent survey blocks in proximity to the study area (Sequoia Audubon Society 2001). Potential nesting habitat is available throughout the woodland within the study area.

Other Nesting Native Bird Species

Suitable nesting habitat for other, non-listed bird species protected under the MBTA occurs in trees and shrubs on the study area. The MBTA regulates or prohibits taking, killing, and possession of migratory bird species and their nests as listed in Title 50 Code of Federal Regulation (CFR) Section 10.13. Bird species and their nests are also protected under Sections 3515 and 3503 of the state Fish and Game Code. Vegetation removal during the nesting season, or noise and other disturbance during construction, could adversely impact nesting bird species on the study area, should they be present, potentially resulting in nest destruction, abandonment, or failure. Mitigation measures to address potential significant impacts to bird species are included in Section 5.0.

Pallid Bat (*Antrozous pallidus*), Federal Status: None, State Status: Species of Special Concern, Western Bat Working Group: High Priority

The pallid bat inhabits a variety of arid habitats including grassland, scrub and woodlands (Hermanson and O'Shea 1983). It is a year-round resident in central California, where it is usually associated with oak woodland. Daytime roosts are generally in trees but also occur in rock outcrops and mines. Nocturnal roosts are often under bridges and in rock outcrops. Breeding takes place in the winter, and ovulation is delayed until environmental conditions are appropriate in the spring. One or two young are born in May or June. Maternal colonies generally number less than 100 individuals. Pallid bats feed on insects and arachnids, including Jerusalem crickets, scorpions and beetles, which are often taken on the ground. The species is very sensitive to disturbance of roost sites. Pallid bats are not known to migrate, and winter hibernacula are often close to summer roosts.

Pallid bat has been documented ~6.3-miles northeast, ~7-miles southwest, and ~7.2-miles north of the study area (CDFG 2011). Appropriate daytime roosting habitat is present in trees on the study area. Mitigation measures to address potential significant impacts to the species are included in Section 5.0.

Fringed Myotis (*Myotis thysanodes*), Federal Status: None, State Status: None, Western Bat Working Group: High Priority

The fringed myotis is found throughout much of the western United States and Mexico from sea level up to 7,000 feet in elevation. It inhabits a variety of habitats including desert scrub, oak woodland and coniferous forest (O'Farrell and Studier 1980). Day roosts include rock crevices and trees, as well as mines and buildings. Birth of a single young occurs in May or June. Maternity roosts can be large, numbering up to 400 individuals (O'Farrell and Studier 1980). The species feeds primarily on beetles. It is known to migrate but such movements are poorly understood. Although widely distributed, it is uncommon to rare throughout its range. The species is highly sensitive to disturbance by humans.

There are no records in the CNDDDB for fringed myotis within ten miles of the study area but this may be due to a lack of survey effort. Appropriate roosting habitat is present in the woodlands within the study area. Mitigation measures to address potential significant impacts to the species are included in Section 5.0.

Long-legged Myotis (*Myotis volans*), Federal Status: None, State Status: None, Western Bat Working Group: High Priority

The long-legged myotis is found throughout much of California with the exception of the low desert regions (Warner and Czaplewski 1984; Hoffmeister 1986). It is primarily associated with coniferous forests, although it may be found in riparian and desert habitats as well (Warner and Czaplewski 1984). Day roosts are generally in hollow trees, rock crevices, mines and buildings. A single young is produced each year in June or July. Maternity roosts can be large, numbering in the hundreds. Long-legged myotis hibernate in California, and there are likely seasonal movements between summer and winter roosts. The species feeds primarily on moths, but will also eat beetles, flies and termites (Warner and Czaplewski 1984). Its population status is poorly understood.

There are no records in the CNDDDB for long-legged myotis within ten miles of the study area but this may be due to a lack of survey effort. Appropriate roosting habitat is present in the woodlands within the study area. Mitigation measures to address potential significant impacts to the species are included in Section 5.0.

San Francisco Dusky-footed Woodrat (*Neotoma fuscipes annectens*), Federal Status: None; State Status: Species of Special Concern

The San Francisco dusky-footed woodrat occurs from San Francisco Bay south through the Santa Cruz Mountains to Elkhorn Slough and inland to the Diablo Range (Hall 1981). The species is most common in riparian, oak woodland and scrub habitats (Carraway and Verts 1991). It typically constructs houses, which are often referred to as nests or middens, out of sticks and other debris. They are constructed on the ground, in rocky outcrops or in trees and are often found in concentrations along riparian corridors. The species can also live in hollows in logs or trees and colonize man-made structures that provide appropriate protection from predators. Houses are often reused by successive generations and some can grow to be six feet or more in height, while others are well-hidden and easily overlooked. Houses are used for rearing young, protection from predators, resting, food storage, thermal protection and social interaction (Carraway and Verts 1991).

At least two woodrat houses were observed within the proposed Ancient Oaks Connector Trail in Mixed Evergreen Forest habitat (Figures 2 and 3). Several other woodrat houses were observed within the study area corridor that was assessed for the Ancient Oaks Connector Trail. Mitigation measures to address potential significant impacts to the species are included in Section 5.0.

American Badger (*Taxidea taxus*), Federal Status: None; State Status: Species of Special Concern

The American badger inhabits a variety of open habitats including annual grassland, scrub and savanna habitats (Zeiner, et al. 1990b). Badgers feed primarily on fossorial rodents such as gophers and ground squirrels, although they will eat a variety of available live prey (Williams 1986). They are powerful diggers and excavate burrows for den sites as well as during foraging activities. Burrows are often re-used, though some individuals may dig new burrows each night (Long 1973). It was once a widespread resident throughout much of California but within the last century populations have declined as the result of predator and rodent control programs, road-kills and habitat conversion (Williams 1986).

Fresh badger diggings were observed along a portion of the proposed Ancient Oaks Connector Trail, including a plugged burrow that was likely occupied on 8 September 2011 (Figures 2 and 3). Mitigation measures to address potential significant impacts to the species are included in Section 5.0.

Movement Corridor

A newt movement corridor (either *Taricha torosa* or *T. granulosa*, or both) has been documented in the vicinity of the commemorative site/staging area along at least an approximately 200-foot section of Alpine Road between Gate RR04 and Gate SR07 (Roessler, pers. comm.). Newts have no protected status, but interference with established wildlife corridors could be considered a significant impact under CEQA. Newts are subject to road-kill as they move across Alpine Road between upland habitat and breeding locations. Newts pass through open, grassy areas and over-summer in coastal scrub and woodlands. California newts (*T. torosa*) have been observed in Mindego Creek and they breed in Mindego Lake located about two miles north northwest (Condor County Consulting 2009; Alvarez, pers. comm.). Rough-skinned newts (*T. granulosa*) breed in Kneudler Lake situated approximately 2.5 miles to the west (Condor County Consulting 2009; Alvarez, pers. comm.). Closer potential breeding ponds are present east of Alpine Road within approximately 0.5 miles. Rough-skinned newt terrestrial activity appears to vary geographically and although individuals may be seen moving through uplands during the day, in this area higher numbers likely move at night associated with rain events (Petranka 1998; Allaback and Laabs, unpublished data; Roessler, pers. comm.). The project will result in the conversion of Non-Native Grassland habitat to the commemorative site/staging area, potentially interfering with the movement of newts. Mitigation measures to address potential significant impacts to the newt movement corridor are included in Section 5.0.

4.3 Other Sensitive Biological Resources

Potential Jurisdictional Waters

Six ephemeral drainage channels are present along the proposed Ancient Oaks Connector Trail⁷ (Figures 2 and 3). The channels are tributaries to Mindego Creek, a USGS “blue line” stream that drains into Alpine Creek, San Gregorio Creek, and eventually the Pacific Ocean (USGS 1961). The channels drain through Mixed Evergreen Forest, Coyote Brush Scrub, and Non-Native Grassland habitats. The channels were dry at the time of the field visits, and lacked wetland or riparian vegetation, but had a bed and bank and could be considered jurisdictional by the U.S. Army Corps of Engineers, California Department of Fish and Game, and/or the Regional Water Quality Control Board.

The trail alignment will occur in the vicinity of potential jurisdictional waters. Placement of fill material or other work within jurisdictional waters could require a permit from regulatory agencies. Mitigation

⁷ Based on a reconnaissance field visits only. A formal delineation was not conducted on the study area, and all waters are referred to as “potential” until verified or disclaimed by regulatory agencies.

measures to address potential significant impacts to potential jurisdictional waters are included in Section 5.0.

Blue Wild Rye Grassland

Blue Wild Rye Grassland occurs adjacent to and northwest of the commemorative site (Figures 2 and 3), and is dominated by blue wild rye and other native grasses and forbs including purple needlegrass, soap plant, Kellogg's yampah, and yarrow. Blue Wild Rye Grassland has a state rank of S3?⁸, and is considered a sensitive natural community (CDFG 2010; Biotic Resources Group 2011). Mitigation measures to address potential significant impacts to this community are included in Section 5.0.

5.0 POTENTIAL BIOLOGICAL IMPACTS AND PROPOSED MITIGATION MEASURES

The proposed project includes the following components within the study area: (1) a commemorative site (including a concrete path, gathering area, and plein air painting deck) on a knoll west of an existing graded flat; (2) a new, 20 to 25-stall parking lot and trailhead with composting restroom facilities located on the graded flat adjacent to Alpine Road; (3) a new multiuse trail connecting the commemorative site/staging area to Ancient Oaks Trail to the north and Mindego Ridge Trail to the south; and (4) a new trail on the Mindego Ranch property connecting the existing Mindego Ridge Trail with Mindego Hill (Figures 2 and 3). In addition, the existing Mindego Ridge Trail was included in the study area because it connects the commemorative site/staging area with the proposed Mindego Hill Trail, though no improvements or other ground disturbance are proposed for this trail. The following measures are recommended to mitigate any potentially significant impacts to special-status biotic resources on the study area as a result of the proposed projects.

Potential Significant Impact 1: Mixed Evergreen Forest and Non-Native Grassland portions of the proposed Ancient Oaks Connector Trail support suitable habitat for Santa Clara red ribbons, robust monardella, and Dudley's lousewort. If any of these species are present, they could be adversely impacted by trail construction, including mortality of individuals by crushing or habitat destruction.

Mitigation Measure 1: A focused plant survey shall be conducted for Santa Clara red ribbons, robust monardella, and Dudley's lousewort on the proposed Ancient Oaks Connector Trail during the late spring/early summer blooming period. If these species are not found during the focused survey, no additional mitigation measures for special-status plants are necessary. If special-status plants are found, the population shall be mapped and a suitable buffer zone established around the population (in consultation with CDFG based on species requirements, proximity to the work area, and other site specific factors) to protect it from trail impacts.

Potential Significant Impact 2: Mindego Lake, located outside the study area ~1,500 feet west of the proposed Mindego Hill Trail, supports populations of CRLF, SFGS, and WPT. The study area itself does not contain suitable aquatic habitat for these species, but CRLF and SFGS could use the various vegetation communities within the study area temporarily during movements between Mindego Lake and ponds or other aquatic habitat in the surrounding region. In addition, Non-Native Grassland could serve as nesting habitat for WPT. As a result CRLF, SFGS, or WPT could occur in a work area during construction, potentially resulting in direct mortality during construction.

⁸ Alliances with State ranks of S1-S3 are considered to be highly imperiled. The question mark denotes an inexact numeric rank due to insufficient samples over the full expected range of the type, but existing information points to this rank (CDFG 2010).

Since 2009, there have been at least 36 SFGS sightings within ~900 feet of aquatic habitat in Mindego, Knuedler, or Upper Lakes, and 35 of those occurrences were within 500 feet of aquatic habitat (Condor Country Consulting 2009; District and Biosearch unpublished data). An additional occurrence was reported along Mindego Ridge Trail ~3,500 feet ESE of Upper Lake. Four of these occurrences were on a road or trail. If SFGS are present on roads or trails, direct mortality could occur by crushing from vehicle or bicycle tires. The continuous contact of tires to the road or trail surface and higher rate of speed of vehicles and bicycles in contrast to hikers or equestrians could result in increased probability of direct mortality. An SFGS mortality by bicycle strike at Crystal Springs Reservoir was reported by USFWS (2006).

Horse watering in or near aquatic SFGS habitat could result in snake trampling by horses. Preferred prey (i.e. Pacific treefrog) that might be attracted to leaking troughs could attract snakes. If snakes and horses were present at the same time, trampling could result. However, horses are instinctively protective of their legs and feet, and many horses appear to fear snakes when they encounter them. Horses are known to commonly walk around snakes when snakes are observed by the horses (K. Davidson, Davidsons Dales Ponies, Clayton, CA, pers comm.).

Mitigation Measure 2a: Access to Mindego Ranch shall be controlled to minimize the potential for injuring or killing an SFGS that may bask or cross a road or trail. A gate shall be installed along Mindego Ridge Trail approximately 0.5 miles from its intersection with Alpine Road (at the junction with Mindego Creek Trail) to restrict access by bikers⁹. Vehicle access shall be controlled by the District. Other than emergencies, access shall be limited to daily patrols and authorized persons that follow a 5-mph speed limit within 2000-feet of Mindego Lake and other locations occupied by SFGS.

Mitigation Measure 2b: To minimize trampling by watering horses, equestrian use through marked trails on Mindego Ranch shall be permitted with horse watering allowed at designated troughs only. Troughs shall be situated in previously disturbed areas that have been compacted and are therefore less likely to provide nearby vegetative cover that may attract snakes. Troughs shall be maintained to minimize or eliminate leaks.

Mitigation Measure 2c: To reduce overall human impacts near aquatic habitat areas, the Mindego Hill Trail shall be limited to hikers and equestrians only. The Mindego Hill Trail shall be constructed with as little grading or other surface disturbance as possible as safety allows.

Mitigation Measure 2d: Within two weeks prior to the start of construction, a worker education program shall be presented by a qualified biologist (defined as a person permitted to study the target species). Associated written material will be distributed. It shall be the District representative's responsibility to ensure that all construction personnel and subcontractors receive a copy of the education program. A signature sheet shall be maintained to ensure all personnel receive training. The education program shall include a description of the CRLF, SFGS, WPT and their habitat, the general provisions of the Endangered Species Act, the necessity of adhering to the Act to avoid penalty (for CRLF and SFGS only), and measures implemented to avoid affecting CRLF, SFGS, and WPT specific to the project and the work boundaries of the project. After the program is delivered, the qualified biologist shall designate District staff to conduct weekly biological monitoring duties (see below).

⁹ The District has expressed its desire to achieve "no take" of the endangered and fully protected SFGS on Mindego Ranch in order to provide resource protection as well as comply with regulatory agency requirements, and recommendations here reflect that goal. Trail management and planning constraints expressed by the District, in addition to documented locations of and suitable habitat for SFGS and the uncertainty related to SFGS movements, factored into the recommendation to restrict bicycle access at this location.

Mitigation Measure 2e: A qualified biologist shall conduct a preconstruction survey of the entire study area within one week of construction. Prior to the preconstruction survey the trail alignment shall be clearly delineated in the field. Since the entire study area consists of upland habitat only, methods shall consist of a visual survey during the day for individual CRLF, SFGS and WPT. If grading is scheduled May 15-October 15, the inspection will also include a search for any evidence of WPT nesting in grassland or Coyote Brush Scrub.

The designated biological monitor shall conduct weekly inspections until the entire project is complete. Methods shall include repeating the visual survey for CRLF, SFGS and WPT within the portion of the construction project scheduled to be built the following week, based on coordination with the construction foreman.

If an SFGS, CRLF or WPT is observed within the study area by anyone involved in the project, work shall cease within 50-feet until the animal has left the area on its own. If a WPT nest is discovered within the study area, CDFG shall be contacted for guidance. If an SFGS or CRLF is found within the study area, the biological monitor, District project manager and regulatory agencies shall be contacted for guidance.

Potential Significant Impact 3: Nesting habitat is present for white-tailed kite, golden eagle, long-eared owl, Vaux's swift, Allen's hummingbird, Nuttall's woodpecker, olive-sided flycatcher, oak titmouse, grasshopper sparrow, Bryant's savannah sparrow and other non-listed native birds in trees, shrubs, and grassland on and adjacent to the study area. Vegetation removal, as well as noise and other disturbance during construction, could adversely impact nesting bird species, if present, potentially resulting in nest destruction or abandonment.

Mitigation Measure 3: Vegetation removal shall be limited to the minimum necessary to conduct the project. If feasible, project construction shall take place outside of the breeding bird season (the breeding bird season is generally February 15 to August 15). If work must be conducted during the breeding season, a qualified biologist shall conduct a pre-construction breeding bird survey throughout areas of suitable habitat within 300 feet of the project site within 30 days prior to the onset of any construction activity. If bird nests are observed, an appropriate buffer zone shall be established around all active nests to protect nesting adults and their young from construction disturbance. Buffer zones shall be determined by a qualified biologist in consultation with CDFG based on the site conditions and the species potentially impacted. Buffer zones are typically 300-feet for a nesting raptor, 100-feet for a passerine Species of Special Concern, and 30 to 50-feet for birds protected under the Migratory Bird Treaty Act. Work within the buffer zone shall be postponed until all the young are fledged, as determined by a qualified biologist.

Potential Significant Impact 4: At least two San Francisco dusky-footed woodrat houses were observed on the study area in the vicinity of the proposed Ancient Oaks Connector Trail (Figures 2 and 3). Trail construction could result in the removal or disturbance of woodrat houses along the trail alignment.

Mitigation Measure 4: Within 30 days prior to project construction, a qualified biologist shall inspect the trail work area and adjacent areas within 50 feet for woodrat houses. An exclusion zone shall be erected around the existing woodrat houses using flagging or a temporary fence that does not inhibit the natural movements of wildlife (such as steel T-posts and a single strand of yellow rope or similar materials). The trail shall be relocated as necessary to avoid impacting woodrat houses, even if avoidance is by only a few feet. If woodrat houses can't be avoided by the trail, CDFG shall be contacted for approval to relocate individuals by live-trapping and building a nearby artificial house as a release site. Approval to relocate shall be acquired from CDFG.

Potential Significant Impact 5: Badger activity and a likely occupied burrow were observed along a portion of the proposed Ancient Oaks Connector Trail (Figures 2 and 3). Trail construction could result in the removal or disturbance of badgers or their dens along the trail alignment.

Mitigation Measure 5: Within 30 days prior to project construction, a qualified biologist shall inspect the trail work area and adjacent areas within 50 feet for badger dens. If an active (= occupied) den is located, the trail shall be relocated as necessary to avoid impacting the animal or its den. If an active natal den is discovered, work shall cease and a qualified biologist or District staff shall monitor the site until the young have dispersed.

Potential Significant Impact 6: Potential roosting habitat for pallid bat, fringed myotis, and long-legged myotis occurs in mature trees and snags on the study area. Roost destruction, or work in close proximity to roost sites, could result in adverse impacts to special-status bat species.

Mitigation Measure 6: If mature trees or snags will be removed during the bat breeding season (April 1 through August 31), a qualified bat biologist shall inspect trees for potential roost sites. If no potential roost sites are found, no additional mitigation is necessary. If bat roosts are found, direct disturbance to the roost shall be avoided during the breeding season.

Potential Significant Impact 7: A movement corridor for newts (*Taricha* sp.) has been documented in the vicinity of the commemorative site/staging area. The conversion of Non-Native Grassland to the commemorative site/staging area could impede an established newt movement corridor.

Mitigation Measure 7: The staging area shall be gated at sundown such that it is not used at night when the highest numbers of newts may migrate (Roessler, pers. comm.). The staging area shall be designed with minimal barriers to above-ground movements. There shall be no curbs, and gutters or drainage ditches shall be rounded. Parking space stops shall be elevated such that newts can pass underneath. Limited native landscaping shall be installed to incite newts to promptly pass through the staging area to reach the surrounding vegetative cover. Signage shall be installed to educate visitors to avoid newts since some are expected to be encountered during daytime hours.

Potential Significant Impact 8: Potential jurisdictional waters are present in the vicinity of the proposed Ancient Oaks Connector Trail. Placement of fill material or other work within the jurisdiction of the U.S. Army Corps of Engineers, the California Department of Fish and Game, and/or the Regional Water Quality Control Board could require a permit.

Mitigation Measure 8: If feasible, the Ancient Oaks Connector Trail shall be routed to avoid potential jurisdictional waters. If potential jurisdictional waters can't be avoided, the regulatory agencies shall be contacted and a formal wetland and waters delineation conducted and verified by the regulatory agencies. The project shall follow all conditions required by the regulatory agencies.

Potential Significant Impact 9: Blue Wild Rye Grassland, a sensitive natural community, is located in close proximity to the proposed commemorative site (Figures 2 and 3; Biotic Resources Group 2011). Ground disturbance could result in direct impacts to this community as well as indirect impacts by facilitating colonization of yellow-star thistle and other invasive species into Blue Wild Rye Grassland

Mitigation Measure 9: Prior to construction, temporary fencing or flagging shall be installed around Blue Wild Rye Grassland to prevent encroachment of equipment or construction personnel into sensitive habitat. Invasive, non-native plant species that occur adjacent to the work area shall be removed or controlled to prevent encroachment into adjacent habitats (Biotic Resources Group 2011).

The conclusions of this biotic assessment reflect conditions observed at the time of the field visits and the biologist's interpretation of those conditions. Government regulatory agencies make the final determination regarding biological resource issues on the project site.

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Appendix A. Special-status species with potential to inhabit the study area region

List compiled from searches of the CNDDDB (CDFG 2011), CNPS Online Inventory (CNPS 2011), and USFWS (2011) records for the Mindego Hill, La Honda, Big Basin, and Franklin Point 7.5' USGS quadrangles, CDFG Special Animals List (2011), and other publications (including Zeiner et al. 1988, 1990a; Hickman 1993). This list has not been reviewed by the regulatory agencies.

Species	Status	Typical Habitat	Potential for Occurrence on Study Area
PLANTS			
<i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion	List 1B.2	Cismontane woodland, valley and foothill grassland (clay, often on serpentine), dry hillsides, 100-300 (670) m. Blooms May-June.	Low. Some suitable habitat present in Non-Native Grassland but suitable microhabitat (clay or serpentine soils) lacking from the study area.
<i>Arctostaphylos andersonii</i> Santa Cruz manzanita	List 1B.2	Broadleafed upland forest, chaparral, North Coast coniferous forest (openings, edges), 60-730 m. Blooms November-April.	None. No manzanita observed on the study area. Should have been identifiable during field visits.
<i>Arctostaphylos regismontana</i> Kings Mountain manzanita	List 1B.2	Broadleafed upland forest, chaparral, North Coast coniferous forest, 305-730 m. Blooms January-April.	None. No manzanita observed on the study area. Should have been identifiable during field visits.
<i>California macrophylla</i> round-leaved filaree	List 1B.1	Cismontane woodland, valley and foothill grassland (heavy clay), 15-1,200 m. Blooms March-May.	Low. Suitable heavy clay microhabitat not present on study area.
<i>Calyptridium parryi</i> var. <i>hesseae</i> Santa Cruz Mountains pussypaws	List 1B.1	Chaparral, cismontane woodland (sandy or gravelly openings), 305-1530 m. Blooms May-August.	Low. No suitable microhabitat (sandy or gravelly openings) present on the study area.
<i>Clarkia concinna</i> ssp. <i>automixa</i> Santa Clara red ribbons	List 4.3	Chaparral, cismontane woodland, 90-1,500 m. Blooms May-June.	Moderate. Some suitable habitat present in Mixed Evergreen Forest. Documented occurrences ~1.6-mile east of study area.
<i>Dirca occidentalis</i> western leatherwood	List 1B.2	Broadleafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, North Coast coniferous forest, riparian forest and woodland. Usually on brushy slopes, mesic sites in mixed evergreen and foothill woodland communities, 30-550 m. Deciduous shrub, blooms January-April.	None. Suitable habitat present in Mixed Evergreen Forest but species should have been identifiable during field visits and was not observed.

Species	Status	Typical Habitat	Potential for Occurrence on Study Area
<i>Eriogonum nudum</i> var. <i>decurrans</i> Ben Lomond buckwheat	List 1B.1	Chaparral, cismontane woodland, lower montane coniferous forest (maritime ponderosa pine sandhills)/sandy), 50- 800 m. Blooms June-October.	Low. Suitable sandy microhabitat not present. Species should have been identifiable during field surveys and was not observed.
<i>Eriophyllum latilobum</i> San Mateo wooly sunflower	FE, SE, List 1B.1	Cismontane woodland (serpentine, often on roadcuts), 45-150 (610) m. Blooms May-June.	None. Suitable serpentine habitat not present. Species should have been identifiable during field surveys and was not observed.
<i>Legenere limosa</i> legenere	List 1B.1	Vernal pools, 1-880 m. Blooms April-June.	None. No vernal pool habitat present.
<i>Malacothamnus arcuatus</i> arcuate bush mallow	List 1B.2	Chaparral, cismontane woodland, 15-355 m. Blooms April-September.	None. No <i>Malacothamnus</i> observed on the study area. Should have been identifiable during field visits.
<i>Malacothamnus davidsonii</i> Davidson's bush-mallow	List 1B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland, 185-855 m. Blooms June-January.	None. No <i>Malacothamnus</i> observed on the study area. Should have been identifiable during field visits.
<i>Monardella villosa</i> ssp. <i>globosa</i> robust monardella	List 1B.2	Broadleafed upland forest (openings), chaparral (openings), cismontane woodland, coastal scrub, valley and foothill grassland, 100-915 m. Blooms June-August.	Moderate. Some suitable habitat present in Mixed Evergreen Forest and Non-Native Grassland. Documented occurrence ~2-miles north of study area.
<i>Monolopia gracilens</i> woodland woollythreads	List 1B.2	Broadleafed upland forest openings, chaparral openings, cismontane woodland, North Coast coniferous forest openings, valley and foothill grassland (serpentine), sandy to rocky soils, 100-1,200 m. Blooms March-July.	Low. Some suitable habitat present in Non-Native Grassland and openings in Mixed Evergreen Forest but suitable microhabitat (serpentine, sandy to rocky soils) generally lacking from study area.
<i>Pedicularis dudleyi</i> Dudley's lousewort	List 1B.2, SR	Chaparral (maritime), cismontane woodland, North Coast coniferous forest, valley and foothill grassland, 60 to 900 m. Blooms April-June.	Moderate. Some suitable habitat present in Mixed Evergreen Forest and Non-Native Grassland. Documented occurrence ~2-miles south of study area.
<i>Pentachaeta bellidiflora</i> white-rayed pentachaeta	FE, SE, List 1B.1	Valley and foothill grassland. Open dry rocky slopes and grassy areas, often on soils derived from serpentine bedrock, 35-620 m. Blooms March-May.	Low. No suitable serpentine habitat present on the study area.
<i>Piperia candida</i>	List	Broadleafed upland forest, lower montane	Low. Marginal habitat present in Mixed

Species	Status	Typical Habitat	Potential for Occurrence on Study Area
white-flowered rein orchid	1B.2	coniferous forest, North Coast coniferous forest (sometimes serpentinite), 30-1,310 m. Blooms May-September.	Evergreen Forest, but microhabitat (serpentine) not present and species should have been in bloom during field visits and was not observed.
<i>Stuckenia filiformis</i> slender-leaved pondweed	List 2.2	Marshes and swamps (assorted shallow freshwater), 300-2150 m. Blooms May-July.	None. No suitable aquatic habitat on the study area.
WILDLIFE			
Fishes			
<i>Oncorhynchus mykiss irideus</i> steelhead – central California coast DPS	FT	From Russian River south to Soquel Creek and to, but not including, the Pajaro River. Also includes San Francisco and San Pablo Bay Basins.	None. Known from Mindego Creek but drainages on the study area are ephemeral and do not support fish.
Amphibians			
<i>Rana draytonii</i> California red-legged frog	FT, SSC	Breeds in semi-permanent and perennial water sources often with dense, shrubby or emergent riparian vegetation including stock ponds and marshes; uses a variety of wetland habitats including streams during the summer months.	Low. Observed in Mindego Lake, ~1,500 feet west of the proposed Mindego Hill Trail; could use portions of the study area during overland movements between aquatic habitats.
<i>Rana boylei</i> Foothill yellow-legged frog	SSC	Breeds in perennial streams with cobble-sized substrate; highly aquatic species.	None. Aquatic habitats unsuitable in study area.
Reptiles			
<i>Emys marmorata</i> western pond turtle	SSC	Inhabits permanent or nearly permanent bodies of water in many habitat types below 6000 ft. elevation. Typically nests in grassy, open habitat.	Moderate. Observed in Mindego Lake, ~1,500 feet west of the proposed Mindego Hill Trail; could use open, grassy portions of the study area for nesting.
<i>Phrynosoma coronatum</i> Coast horned lizard	SSC	Chaparral, grasslands, coniferous forests in fine, loose soils	Low. Soil types are not optimal but known to inhabit portions of nearby Monte Bello Open Space Preserve approximately 4 miles east of the staging area.
<i>Thamnophis sirtalis tetrataenia</i> San Francisco garter snake	FE, SE, FP	Vicinity of freshwater marshes, ponds, and slow moving streams in San Mateo and extreme northern Santa Cruz Counties. Prefers dense wetland cover that supports rapid frog prey and adjacent uplands with open scrub areas	Low. Observed in Mindego Lake, ~1,500 feet west of the proposed Mindego Hill Trail; could cross portions of the study area during seasonal movements.

Species	Status	Typical Habitat	Potential for Occurrence on Study Area
Birds			
<i>Aquila chrysaetos</i> golden eagle	BCC, FP	Nests in large trees and cliffs; forages in open habitats	Moderate. Could forage in Non-Native Grassland and nest in trees on the study area.
<i>Buteo regalis</i> ferruginous hawk	BCC	Winters in grasslands and other open habitats	Low. Could forage in Non-Native Grassland.
<i>Circus cyaneus</i> northern harrier (nesting)	SSC	Nests on ground in marsh and grassland habitats	Low (nesting). Foraging habitat present in Non-Native Grassland proximate to Mindego Hill.
<i>Elanus leucurus</i> (nesting) white-tailed kite	FP	Open grassland, meadows, or marshes, for foraging, close to isolated, dense-topped trees for nesting and perching.	Moderate. Could forage in Non-Native Grassland and nest in trees on the study area.
<i>Brachyramphus marmoratus</i> marbled murrelet	FT, SE	Nests in coastal forests from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old growth redwood-dominated forests, often in Douglas-fir, up to six miles inland.	None. No suitable old growth forest habitat on the study area.
<i>Asio otus</i> long-eared owl	SSC	Nests in open woodland and coniferous forests, often near riparian areas	Moderate. Could forage in Non-Native Grassland and nest in trees on the study area.
<i>Chaetura vauxi</i> Vaux's swift	SSC	Nests in snags, sometimes chimneys.	Moderate. Potential nesting habitat adjacent to the staging area and along portions of the Ancient Oaks Connector Trail.
<i>Cypseloides niger</i> Black swift	BCC; SCC	Nests on cliffs behind or adjacent to waterfalls	None. No suitable nesting habitat on the study area.
<i>Selasphorus sasin</i> Allen's hummingbird	BCC	Nests in narrow coastal belt in woodland and scrub habitats.	High. Potential nesting habitat adjacent to the staging area and along portions of the Ancient Oaks Connector Trail.
<i>Picoides nuttallii</i> Nuttall's woodpecker	BCC	Nests in oak woodland and along riparian corridors.	Moderate. Potential nesting habitat adjacent to the staging area and along portions of the Ancient Oaks Connector Trail.
<i>Contopus cooperi</i> Olive-sided flycatcher	BCC, SSC	Nests primarily in coniferous forests with open canopy; nests in Eucalyptus forest along coast.	Moderate. Limited amount of nesting habitat along Ancient Oaks Connector Trail.
<i>Baeolophus inornatus</i> Oak titmouse	BCC	Nests in oak, oak-pine and pinyon-juniper woodland.	High. Potential nesting habitat adjacent to the staging area and on the Ancient Oaks Connector Trail.

Species	Status	Typical Habitat	Potential for Occurrence on Study Area
<i>Ammodramus savannarum</i> Grasshopper sparrow	SSC	Nests in short- to mid-height open grasslands.	High. Potential habitat in open grassy areas.
<i>Passerculus sandwichensis alaudinus</i> Bryant's savannah sparrow	SSC	Nests in tidally influenced habitats and moist grasslands and occasionally dry grasslands.	High. Potential habitat in open grassy areas.
<i>Spizella atrogularis</i> Black-chinned sparrow	BCC	Nests in arid scrub habitats on rugged slopes.	Low. Patches of habitat along the Ancient Oaks Connector Trail but no records from the area.
<i>Carduelis lawrencei</i> Lawrence's goldfinch	BCC	Nests in open woodlands in proximity to water.	Moderate. Potential nesting habitat adjacent to the staging area and along portions of the Ancient Oaks Connector Trail.
Mammals			
<i>Antrozous pallidus</i> pallid bat	SSC, WBW G	Roosts in caves, trees and buildings; forages in variety of habitats.	Moderate. Suitable habitat present in mature trees.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	SSC, WBW G	Roosts primarily in caves and buildings; forages in variety of habitats.	Low. No suitable roosting sites in study area.
<i>Myotis thysanodes</i> fringed myotis	WBW G	In a wide variety of habitats, optimal are pinyon-juniper, valley and foothill hardwood and hardwood conifer. Uses caves, mines, buildings, or crevices for maternity colonies and roosts.	Moderate. Suitable habitat present in mature trees.
<i>Myotis volans</i> long-legged myotis	WBW G	Roosts in trees, rock crevices, mines and buildings.	Moderate. Suitable habitat present in mature trees.
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	SSC	Forest habitats of moderate canopy and moderate to dense understory. Also in chaparral habitats. Constructs houses of shredded grass, leaves, and other material.	Present. Two woodrat houses observed along Ancient Oaks Connector Trail. More expected in the area.
<i>Taxidea taxus</i> American badger	CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats. Preys on burrowing rodents; digs burrows for dens and	Present. Badger activity observed along Ancient Oaks Connector Trail.

Species	Status	Typical Habitat	Potential for Occurrence on Study Area
		during foraging activities.	
<i>Bassariscus astutus</i> Ringtail	FP	Brushy and rocky slopes; nests in rock crevices, snags, abandoned burrows and wood-rat nests.	Low. Although known from the Santa Cruz Mountains, the species appears to be rare.
Key to Status:			
BCC	Federal Birds of Conservation Concern		
FE	Federal Endangered		
FT	Federal Threatened		
SE	State Endangered		
SSC	California Department of Fish and Game Species of Special Concern		
FP	California Department of Fish and Game Fully Protected Species		
WBWG	Western Bat Working Group: High Priority Species		
List 1B	CNPS list of plants rare, threatened, or endangered in California and elsewhere		
List 2	CNPS list of plants rare, threatened, or endangered in California but more common elsewhere		
List 4	CNPS list of plants of limited distribution; a watch list		
.1/.2/.3	Seriously endangered in California/Fairly endangered in California/ Not very endangered in California		

Appendix B. Plant species observed on the study area during the September 2011 field visits.

Scientific Name	Common Name
<i>Acer macrophyllum</i>	big-leaf maple
<i>Achillea millefolium</i>	yarrow
<i>Adenocaulon bicolor</i>	trailplant
<i>Aesculus californica</i>	California buckeye
<i>Aira caryophylla</i> *	silver European hairgrass
<i>Anagallis arvensis</i> *	scarlet pimpernel
<i>Anthemis cotula</i> *	dog-fennel
<i>Arbutus menziesii</i>	Pacific madrone
<i>Artemisia douglasiana</i>	mugwort
<i>Aster chilensis</i>	California aster
<i>Avena</i> sp.*	wild oats
<i>Baccharis pilularis</i>	coyote brush
<i>Bromus carinatus</i>	California brome
<i>Bromus diandrus</i> *	ripgut brome
<i>Bromus hordeaceus</i> *	soft chess
<i>Bromus laevipes</i>	woodland brome
<i>Carduus pycnocephalus</i> *	Italian thistle
<i>Ceanothus thyrsiflorus</i>	blue blossom
<i>Centaurea calcitrapa</i> *	purple star-thistle
<i>Centaurea solstitialis</i> *	yellow star-thistle
<i>Cotoneaster</i> sp.*	cotoneaster
<i>Cupressus</i> sp.*	cypress
<i>Chlorogalum pomeridianum</i>	soap plant
<i>Cichorium intybus</i> *	chicory
<i>Cirsium vulgare</i> *	bull thistle
<i>Clarkia</i> cf. <i>purpurea</i>	clarkia
<i>Conium maculatum</i> *	poison hemlock
<i>Convolvulus arvensis</i> *	field bindweed
<i>Corylus cornuta</i> var. <i>californica</i>	California hazelnut
<i>Cynosurus echinatus</i> *	hedgehog dogtail
<i>Disporum hookeri</i>	fairy bells
<i>Dryopteris arguta</i>	wood fern
<i>Elymus glaucus</i>	blue wild rye
<i>Elymus</i> sp.	wild rye
<i>Epilobium canum</i>	California fuchsia
<i>Eremocarpus setigerus</i>	turkey mullein
<i>Eriogonum nudum</i> var. <i>nudum</i>	buckwheat
<i>Erodium botrys</i> *	filaree
<i>Erodium cicutarium</i> *	red-stem filaree
<i>Epipactis helleborine</i> *	helleborine
<i>Eschscholzia californica</i>	California poppy
<i>Foeniculum vulgare</i> *	fennel
<i>Fragaria vesca</i>	wood strawberry
<i>Galium porrigens</i>	climbing bedstraw
<i>Galium triflorum</i>	sweet-scented bedstraw
<i>Genista monspessulana</i> *	French broom

Scientific Name	Common Name
<i>Geranium dissectum</i> *	geranium
<i>Gnaphalium californicum</i>	California everlasting
<i>Gnaphalium luteo-album</i> *	cudweed
<i>Grindelia</i> sp.	gum plant
<i>Heteromeles arbutifolia</i>	toyon
<i>Heterotheca sessiliflora</i>	golden aster
<i>Hirschfeldia incana</i> *	summer mustard
<i>Holodiscus discolor</i>	oceanspray
<i>Hordeum murinum</i> *	barley
<i>Hypochaeris</i> sp.*	cat's ear
<i>Iris douglasiana</i>	Douglas iris
<i>Juncus patens</i>	spreading rush
<i>Lactuca serriola</i> *	prickly lettuce
<i>Lathyrus vestitus</i>	wild pea
<i>Linum bienne</i> *	flax
<i>Lithocarpus densiflorus</i>	tanoak
<i>Lolium multiflorum</i> *	Italian ryegrass
<i>Lonicera hispidula</i> var. <i>vacillans</i>	honeysuckle
<i>Lotus corniculatus</i> *	birdfoot trefoil
<i>Lupinus bicolor</i>	miniature lupine
<i>Madia gracilis</i>	slender tarweed
<i>Madia madioides</i>	woodland madia
<i>Malva parviflora</i> *	cheeseweed
<i>Marah fabaceus</i>	California manroot
<i>Medicago polymorpha</i> *	bur clover
<i>Mimulus aurantiacus</i>	sticky monkeyflower
<i>Monardella villosa</i> ssp. <i>villosa</i>	coyote-mint
<i>Nassella pulchra</i>	purple needlegrass
<i>Osmorhiza chilensis</i>	sweet cicely
<i>Pentagramma triangularis</i>	gold-back fern
<i>Perideridia kelloggii</i>	Kellogg's yampah
<i>Phalaris aquatica</i> *	Harding grass
<i>Plantago lanceolata</i> *	English plantain
<i>Polygonum arenastrum</i> *	common knotweed
<i>Polystichum munitum</i>	Swordfern
<i>Pseudotsuga menziesii</i> var. <i>menziesii</i>	Douglas-fir
<i>Pteridium aquilinum</i> var. <i>pubescens</i>	bracken fern
<i>Quercus agrifolia</i>	coast live oak
<i>Quercus chrysolepis</i>	canyon live oak
<i>Quercus lobata</i>	valley oak
<i>Quercus parvula</i> var. <i>shrevei</i>	Shreve oak
<i>Raphanus sativus</i> *	wild radish
<i>Rhamnus californica</i>	California coffeeberry
<i>Robinia pseudoacacia</i> *	black locust
<i>Rosa gymnocarpa</i>	wood rose
<i>Rubus parviflorus</i>	thimbleberry
<i>Rubus ursinus</i>	California blackberry

Scientific Name	Common Name
<i>Rumex acetosella</i> *	sheep sorrel
<i>Rumex crispus</i> *	curly dock
<i>Rumex pulcher</i> *	fiddle dock
<i>Salix lasiolepis</i>	arroyo willow
<i>Sambucus mexicana</i>	blue elderberry
<i>Satureja douglasii</i>	yerba Buena
<i>Scrophularia californica</i>	California figwort
<i>Senecio vulgaris</i> *	common groundsel
<i>Silene gallica</i> *	catchfly
<i>Silybum marianum</i> *	milk thistle
<i>Smilacina stellata</i>	false Solomon's seal
<i>Sonchus asper</i> *	prickly sow thistle
<i>Spergularia rubra</i> *	sand-spurrey
<i>Stachys bullata</i>	hedge nettle
<i>Stephanomeria virgata</i>	tall stephanomeria
<i>Symphoricarpos albus</i> var. <i>laevigatus</i>	snowberry
<i>Symphoricarpos mollis</i>	creeping snowberry
<i>Torilis arvensis</i> *	torilis
<i>Toxicodendron diversilobum</i>	poison oak
<i>Trientalis latifolia</i>	star flower
<i>Trifolium hirtum</i> *	rose clover
<i>Trifolium</i> sp.*	clover
<i>Umbellularia californica</i>	California bay
<i>Urtica dioica</i>	stinging nettle
<i>Vicia</i> sp.*	vetch
<i>Vulpia myuros</i> *	vulpia

* = non-native species

APPENDIX C

SITE DISTANCE ANALYSIS



February 13, 2012

Ms. Gina Coony
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022

Re: Sight Distance Analysis for Mindego Gateway Staging Area

Dear Ms. Coony:

Hexagon Transportation Consultants, Inc., has completed a sight distance study for the driveway into the proposed Mindego Gateway staging area. The proposed staging area is located on Alpine Road and would provide access to the Russian Ridge Open Space Preserve. To complete the sight distance study we measured sight distance at the location of the driveway in both directions on Alpine Road, and we measured the speed of vehicles on Alpine Road on either side of the driveway.

- 1. Sight Distance Measurement** – Hexagon evaluated various locations along the Alpine Road frontage to determine the best driveway location for sight distance in both directions. The best location was found to be the location proposed in the current project site plan. Under existing conditions there is an old driveway and gate at that location. The sight distance to the north on Alpine Road was measured to be 250 feet. Beyond this distance there is a curve in the road, and the sight distance also is limited by bushes and small trees near the roadside. The sight distance to the south was measured to be 220 feet. Beyond this distance there is a curve in the road and a large embankment near the roadside.
- 2. Speed Measurement** – Road tubes were placed on the curves on either side of the proposed driveway location on Alpine Road to measure the vehicle speeds. The data were collected on Wednesday February 1, 2012. The curve to the north of the driveway is more gradual than the curve to the south. The 85th percentile speed on the northern curve was found to be 35.8 miles per hour. The 85th percentile speed to the south was found to be 27.1 miles per hour.
- 3. Sight Distance Analysis** – For safe driveway operation there should be sufficient sight distance in both directions at the driveway to correspond to the sight distance standards in the Caltrans *Highway Design Manual*. The design manual discusses both “stopping sight distance” and “corner sight distance.” Corner sight distance is longer than stopping sight distance. Corner sight distance is meant to allow turning maneuvers without the need for through traffic to slow down. This is a generous standard that cannot always be met. The design manual states that in restrictive conditions, the stopping sight distance may be used, which is shorter. Restrictive conditions are defined as situations that would require right-of-way acquisition, extensive excavation, or environmental impacts to achieve the corner sight distance. Restrictive conditions exist at the proposed Mindego Gateway Staging Area, so the stopping sight distance was applied.

The required stopping sight distance increases with speed. Also, the Caltrans design manual states that the stopping distance should be increased by 20% for sustained downhill grades because cars need more distance to stop when traveling downhill. Alpine Road is consistently downhill in the southbound direction near the project site. The design speed that is used for sight distance calculations typically is the 85th percentile speed, often rounded up to the nearest 5 mph increment. The speed to the south (uphill speed) was found to be 27.1 mph, which could be rounded to 30 mph. The required sight distance for 30 mph is 200 feet. There are 220 feet of sight distance available to the south. Therefore, the sight distance requirement would be met.

The speed to the north was found to be 35.8 mph. The required sight distance for 35 mph is 250 feet, and the required sight distance for 40 mph is 300 feet. Increasing these by 20% due to the downhill grade would yield a requirement of between 300 and 360 feet. There are 250 feet of sight



distance available from the driveway to the north. This is not adequate for the speed of traffic on Alpine Road considering the downhill grade. Hexagon recommends increasing the sight distance to the north.

- 4. Recommendations** – Sight distance to the north could be improved by the removal of bushes and small trees that are lining Alpine Road just off the edge of pavement. It appears that one of the trees may be of sufficient diameter that it should be preserved. In that case the lower branches should be trimmed to be out of the line of sight for driveway users. It appears that at least 300 feet of sight distance could be achieved to the north of the driveway by removing this vegetation. More sight distance might be available, but that won't be known until the trimming is complete. In our judgment 300 feet of sight distance would be safe for the observed conditions on Alpine Road. In addition to vegetation removal, the presence of the driveway could be highlighted with "driveway ahead" signage.

We appreciate the opportunity to submit this sight distance analysis for your review. Please do not hesitate to contact us if additional information is needed.

Sincerely,

Hexagon Transportation Consultants, Inc.

A handwritten signature in black ink, appearing to read "Gary K. Black", with a long horizontal flourish extending to the right.

Gary K. Black
President



Required Sight Distance

ATTACHMENT C

RESPONSE TO COMMENTS

MIDPENINSULA REGIONAL OPEN SPACE DISTRICT

Mindego Gateway Project Initial Study/Mitigated Negative Declaration June 13, 2012

Pursuant to CEQA Guideline 15073, the Initial Study and Mitigated Negative Declaration (IS/MND) were circulated for public review. The public comment period began on February 17, 2012 and concluded on March 19, 2012. The IS/MND was distributed in compliance with CEQA and also posted on the District's website.

The purpose of this document is to respond to comments pertaining to the potential for significant effect on the environment as a result of implementation of the Mindego Gateway Project. During the public comment period, comments were received from two agencies. This document responds to those comments, which are attached to this Response as Exhibit B. Responses are provided in numerical order to correspond with the attached compilation of comments received. Corrections to the Draft IS/MND in response to the comments received, or necessary to amplify or clarify material in the Draft IS/MND, are included in the responses. Underlined text represents language that has been added to the Draft IS/MND; text with ~~strikeout~~ has been deleted from the Draft IS/MND.

Response to Commenter 1: San Mateo County Planning and Building Department

1. Clarification to the Project Description regarding the Mindego Ridge Trail Connection. This pathway originates at the eastern edge of the proposed parking lot and ends at Mindego Ridge Trail (Mindego Ridge Trail is also known as Mindego Lake Road), an *existing*, road-width trail that leads from Alpine Road to Mindego Ranch. This former ranch road has been integrated into the Preserve trail system and is closed to public vehicular access. This connection is shown on Figure 3 of the IS/MND. Mindego Ridge Trail is shown in its entirety in Figure 2, similar to all other existing trails in the project vicinity. The pathway does not intersect Alpine Road.
2. Discussion of Mindego Ridge Trail connection in Aesthetics Section. The pathway that connects the staging area to the Mindego Ridge Trail is considered a component of the staging area, the aesthetic impacts of which are discussed in Section I of the IS/MND ("staging area" is a term used by the District to include all features and amenities at a trailhead, including the parking lot and pathways from the parking lot to existing or proposed new trails). This pathway, referred to by the County in their comments as the "Mindego Lake Trail connection", is necessary to provide access from the parking lot to the existing Mindego Ridge Trail and was the preferred alignment to minimize grading. The southern portion of the intervening slope is quite steep; per District trail design standards, traversing this steep slope would have required a much longer trail alignment to maintain the gentle grade required to minimize erosion. The pathway will be constructed of integral color (grey or tan) base rock. To clarify the fact that this and other pathways associated with the parking lot are part of the staging area element, the following text has been added to the Project Description on page 6 of the MND (please note that underlined text is additional text and ~~strikeout~~ text indicates deleted text):

(1) Mindego Gateway Staging Area. The staging area and associated parking lot would be constructed on a previously graded flat area, formerly used as a corporation yard. The

conceptual parking lot and staging area design is depicted in Figure 3 and includes the following components: ...

- Circulation paths constructed from natural tan and gray base rock that connect the parking lot to amenities within the Staging Area (Restroom, Sign Boards, bicycle parking) as well as connections to: a) the Commemorative Site pathway; b) the Ancient Oaks Connector trail; and c) the as Mindego Ridge Trail.

3. Clarification regarding Williamson Act contract.

Comment 1. As noted, the project parcels are designated as Resource Management by the San Mateo County General Plan. Permitted uses in the Resource Management zone include agriculture, public recreation, and more intense land uses such as wineries, veterinary hospitals, and daycare facilities. The parcel is not designated as a Planned Agricultural District (*ie*, zoned as Agriculture) or as a Timberland Preserve, both of which are more narrowly regulated and only conditionally permit recreational uses. No further response is necessary.

Comment 2. The commenter notes that Prime or Non-Prime agricultural land designations are based on soil criteria identified by the U.S. Department of Agriculture. The MND correctly states that the project site is designated as Non-Prime Agricultural Land; no further response is necessary.

Comments 3 and 4. The Mindego Ranch and Silva properties are subject to Williamson Act contracts with San Mateo County. The Williamson Act, also known as the California Land Conservation Act of 1965, aims to discourage the unnecessary conversion of open land to urban uses. For properties that are under a Williamson Act contract, uses are restricted to agricultural, recreational, and open space use, and development of the properties must “consist of, cause, facilitate, or benefit one or more open-space uses on the land” (California Code§51233). In return, landowners receive significant reductions in property tax assessments commensurate to the restricted allowable uses, thus avoiding tax assessments that reflect full market value. The County has determined that the proposed Project, specifically the construction of a staging area and trails, conflicts with the Williamson Act contracts. Staff is working with County planners to amend the contracts, seek input from the Farm Bureau and Agricultural Advisory Committee, and obtain approval from the County Board of Supervisors, to allow the project to proceed. CEQA requires analysis of the potential environmental impacts of the contract amendment. As such, the contract amendments were added to the Mindego Gateway Project description, and analysis is provided in the Agricultural and Forestry Resources section.

Agricultural resources on the Mindego Gateway Project area are shown in Exhibit A of this Response. The grazing operation on Mindego Ranch (parcel 080-340-010; site of the proposed Mindego Hill Trail) was temporarily suspended in 2008 as part of a treatment plan to control severe weed infestations on the property. Additional pasture fencing and cattle water troughs are now required to permit more effective pasture rotation and ensure that the site’s sensitive biological resources are protected. The District is working to complete these necessary ranch improvements and reintroduce cattle grazing on this property by 2014. The former Silva-Kenyon properties (parcels 080-380-030 and 080-080-040, respectively; the Silva parcel is the site of the proposed staging area and trail connections) is currently grazed pursuant to a long-term lease.

The following text was added to the Mindego Gateway Project description (third paragraph on pg. 5 of the IS/MND): The proposed project also includes the amendment of two Williamson Act contracts, as provided for in section 51253 of the State of California’s Government Code, to allow

Land Conservation Compatible uses to include open space and recreational use while maintaining the use of the property for agricultural purposes.

In addition, to clarify the compatibility of the project with agricultural activities, as well as examine the environmental impacts of the contract amendments, the following text was added following the first paragraph on page 17 of the IS/MND:

The proposed Mindego Gateway Project spans two separate properties, each subject to separate Williamson Act contracts executed with the prior landowners in 1966. Since the District is a tax-exempt public agency whose mission is to preserve open space, the Williamson Act is not necessary to achieve land conservation objectives on District lands. For this reason, and after consulting with the California Department of Conservation, the District applied for non-renewal of the Mindego Ranch and Silva-Kenyon contracts when the properties were purchased in 2008 and 2011, respectively. Both contracts are now in the nine-year Williamson Act phase-out period. Notwithstanding, the District intends to continue the agricultural use of the properties. Agricultural operations on the project parcels are shown in Figure 5.

The Project proposes the development of trails and a parking lot that will facilitate and benefit open space and recreational uses, both of which are compatible with ongoing cattle grazing in grassland areas of the property. Although the Project represents the first example of this mixed use of open space in the District, many parks, both country-wide and in the San Francisco Bay region, successfully integrate these uses. The Project therefore complies with the intent of the Williamson Act, namely, to prevent the unnecessary conversion of open land to urban uses. However, the Williamson Act contracts on the Mindego Ranch and Silva-Kenyon properties are quite old and out-of-date in regards to current statutory provisions governing compatible uses, with these mid-1960s contracts specifically allowing *only* those uses that directly support the production of agricultural commodities. The project therefore includes amendment of the contracts to include compatible open space and recreational uses, as provided for by Section 51253 of the Williamson Act.

Mindego Ranch is within the District's Coastsides Projection Area, which is subject to guidelines contained in the Coastal Service Plan as well as applicable Mitigation Measures contained in the Coastal Annexation EIR. The Coastal Service Plan strives to "Preserve existing and potential agricultural operations in order to keep the maximum amount of prime agricultural land and other lands suitable for agriculture in agricultural production."¹ The District Board of Directors adopted continued grazing use at Mindego Ranch and the former Silva-Kenyon properties as part of the Use and Management Plans for Russian Ridge and Skyline Ridge Open Space Preserves. In accordance with Mitigation Measures AGR 1-a and AGR-1b of the Annexation EIR, the staging area was located away from grazed grassland areas of the Silva-Kenyon property, and Mindego Hill Trail was designed to traverse Mindego Ranch in a manner that does not result in interference with agricultural activities. The grazing operation on the Silva-Kenyon property will not be accessible from the proposed trails and parking lot. Grazing land on Mindego Ranch will also largely be closed to public access. The proposed Mindego Hill Trail will traverse a cattle pasture that will be actively grazed throughout the year. However, since off-trail use will be prohibited on Mindego Ranch (due to sensitive biological resources) this trail would result in less than one acre of publicly-accessible pasture area out of approximately 227 total acres of pasture. Trail use would be limited to hikers and equestrians only and is not expected to disturb cattle or otherwise impact use of the pasture.

¹ MROSD 2003. San Mateo Coastal Annexation Area – Service Plan. Pg 10.

The proposed expansion of recreational infrastructure and the minimal additional visitation to the Preserve that will result from this expansion, will not conflict with agricultural uses of the project parcels. The proposed contract amendments would therefore not affect the viability of the agricultural operations on either parcel, but would bring the project into conformance with the contracts and with applicable County statutes and rules. This impact is less than significant.

4. Clarification regarding forest land. Comment noted. Although a few small trees could be removed to accommodate the proposed trail alignments, the project would not conflict with existing zoning for, or cause rezoning of, forest land. The District will obtain any necessary permits for the removal of trees, as required. Page 17 of the IS/MND is modified as follows.

The project area is zoned Resource Management District (RM) on the San Mateo County Zoning Map, and is not zoned for forest land or timberland. Tree removal associated with the project would be minimal and the construction and operation of recreational uses on the site would be compatible with the existing zoning and use of the preserve. The District will consult with CalFIRE to determine if a permit is required for any removal of trees.

Page 17 of the IS/MND is further revised as follows:

The proposed project would result in the development of a staging area/commemorative site and two trails within the existing Preserve. Although trees are dispersed around the project site and some may be removed or otherwise affected by project construction (see Section IV.e), these trees are located within an open space preserve which is used for low-intensity recreation and do not constitute forest land. Furthermore, the proposed project is consistent with the District's management of the Preserve as open space. Therefore, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest uses.

5. Discussion of erosion and sediment control measures in Section VI.b and Section IX:
To clarify that erosion-prevention measures have been incorporated into the project, and to reference the erosion control plans already submitted to the County, the following text was added to the first paragraph on page 47 of the IS/MND:

...all work would occur during the dry season. In addition, construction of each project element will incorporate erosion control measures developed as part of the project design (for example, see John Northmore Roberts and Associates 2012).

Further, Section IX(a) of the IS/MND lists a series of measures that have been included as part of the project to minimize the potential for erosion and sedimentation during construction, thus removing the need for mitigation measures. Measures specifically listed in the IS/MND include construction during the dry season only, with all exposed surfaces to be seeded and mulched prior to onset of the rainy season. The IS/MND also refers to BMPs for erosion and sediment control, which have been approved by the appropriate resource agencies and incorporated into the project, and refers to the project's geotechnical reports for trail drainage improvements and erosion prevention measures. Both are source documents and are available for review at the District Office. In addition, the following text has been added to the first full paragraph on page 60 of the IS/MND:

All construction work would occur during the dry season. Additional BMPs incorporated into the Project include preservation of existing vegetation and topsoil (stockpile and redistribute prior to end of construction) and stockpiled material containment. Trail drainage improvements incorporated into the project include the installation of rolling dips in areas where trail gradients exceed 5 percent and grade reversals where feasible, to divert surface water from trails.

6. Clarification of potential impacts to biological resources. As discussed under comment #2 above, the staging area includes the parking lot and all trail connections/pathways to existing or proposed trails. The existing biological conditions for the staging area and commemorative site are described in Section IV(a) of the IS/MND (“a heavily disturbed, graded flat with compacted soils, base rock, and other surface disturbance”) and do not include ephemeral drainages. In Section IV(c), the ephemeral drainages are identified as occurring along the proposed Ancient Oaks Connector Trail. Moreover, the IS/MND clearly states that all impacts to the bed and banks of any drainages will be avoided through the construction of clear-span bridges and puncheons. To reflect the advancement of design development since the preparation of the IS/MND, Figures 2 and 3 of the IS/MND were updated and the following language was added to the first full paragraph of page 38 of the IS/MND:

Six ephemeral drainage channels are present along the proposed Ancient Oaks Trail. The final trail alignment was designed to pass upslope of the head of two of the six local drainages. One trail crossing will utilize an existing culvert that was examined and approved by the project Engineering Geologist. ...The District will construct two clear-span bridges and one clear-span puncheon to cross the remaining three drainages without impact to channel bed or banks.

7. Clarification regarding potential special-status plants. The location of potential special-status plants is identified on page 26 of the MND. To provide further clarification, the following sentence was added to the end of the first paragraph on page 27:

No other locations, including the proposed staging area/commemorative site footprint and the proposed Mindego Hill Trail, were observed or are expected to support special-status plant species.

Response to Commenter 2: California Department of Fish and Game

Mitigation Measure BIO-1b

The commenter requests that this measure be revised to include additional requirements for special-status plant mitigation and monitoring. As requested, Mitigation Measure BIO-1b on page 27 of the Draft IS/MND is revised as follows:

Mitigation Measure BIO-1b: If special-status plants are found during the focused survey required in Mitigation Measure BIO-1a, the population shall be mapped and, in consultation with the Department of Fish and Game (CDFG), a suitable buffer zone established around the population (based on species requirements, proximity to the work area, and other site specific factors) in which no trail construction, material storage, or staging activities will be allowed. If it is not feasible to avoid populations of robust monardella and/or Dudley’s lousewort, seed shall be collected from the plants that will be affected by trail construction and a propagation and/or reseeding plan shall be developed in coordination with the CDFG. Rare plant populations shall be mitigated at a minimum 1:1 ratio (impacted: reestablished) as measured on the basis of area impacted, number of plants impacted, or number of plant populations impacted. Seeds or propagated plants shall be planted in suitable habitat on the project site or on adjacent open-space lands. A 6-year (at minimum) monitoring plan to document the success of the propagation and/or reseeding program shall also be developed by the District and approved by CDFG before the start of project construction. The monitoring plan shall specify that plantings attain 70 percent coverage after three years and 75 percent coverage after five years, and have a minimum 80 percent survival rate at the end of six years. If the survival and cover rates do not meet the minimum requirements, replacement planting, additional watering, weeding, invasive weed eradication, or other corrective practices necessary to

achieve the noted requirements shall also be implemented. Replacement plantings shall also be monitored with the same survival and growth criteria for up to five years after planting. The monitoring plan shall be submitted to CDFG for approval prior to project construction.

Clarification to Table 3

The commenter requests clarification of two undefined acronyms in Table 3 of the IS/MND. The following text is hereby added to the footnotes of Table 3: BCC Birds of Conservation Concern; WBWG Western Bat Working Group (CDFG 2011. *Special Animals (898 taxa). California Department of Fish and Game, Biogeographic Data Branch, Sacramento, California.*)

Mitigation Measure BIO-2a

The commenter requests that this measure be revised to include additional requirements for the protection of San Francisco garter snake (SFGS) during project operation. As requested, Mitigation Measure BIO-2a on page 34 of the Draft IS/MND is revised as follows:

Mitigation Measure BIO-2a: To ensure compliance with trail use restrictions, appropriate signage shall be installed that clearly designates: 1) the trail sections that will be closed to bicycle use and 2) vehicle speed limits. Interpretive signs shall also be installed to educate users about the biological sensitivity of the Mindego area and the District's protection and enhancement measures. To further ensure that bicyclists do not access the existing Mindego Ridge Trail or the new Mindego Hill Trail, a District-standard bicycle barrier shall also be placed at the Mindego Ridge Trail trailhead.

Mitigation Measure BIO-2c

The commenter requests that this measure be revised to include additional requirements for the protection of SFGS and California red-legged frog (CRLF) during project construction. The following information is based on input from the project herpetologist (Mark Allaback, pers. comm., March 2012). The District agrees with the additional minimization and avoidance measures listed by the commenter. However, with respect to the second bullet, which requests that exclusion fencing be installed around the project site(s) during construction because SFGS have been found 700 feet west of the proposed trail, the District believes that encircling the entire project area with exclusion fencing is not appropriate for this particular project. Specifically, no part of the project site is within 700 feet of a known (or potential) pond, where high numbers of the SFGS may result in an encounter. The District believes that the use of exclusion fencing is most appropriate only in areas adjacent to aquatic habitat, and, arguably, only as part of U.S. Fish and Wildlife Service (USFWS) or CDFG permits.

In addition, although appropriate for some species at certain locations, exclusion fencing may negatively affect other wildlife and plants and may affect the natural movements of SFGS and increase their exposure to predators. If exclusion fencing is not properly maintained and animals enter a work area, they may be trapped within it. Periodic trespass of exclusion fencing (i.e., drift fence) has been documented, even when installed and maintained using the best available methods. Extensive amounts of exclusion fencing, trenched below grade and placed in undisturbed areas, can create a disturbance that may be promptly colonized by non-native, weedy plants. The proposed Mindego Hill Trail, which is 1500 feet from a pond, will be built primarily by hand and will be subject to continuous biological monitoring. These measures are considered adequate to avoid potential impacts to special-status wildlife.

Because there is a record of SFGS identified within 700 feet of the proposed Mindego Hill Trail, the District agrees that it is appropriate to conduct monitoring during the construction period of this project element (as requested in the first bullet). As noted in Mitigation Measure BIO-2c, preconstruction surveys shall be conducted by permitted biologists within one week of project implementation. Thereafter, trained District staff will conduct continual monitoring throughout trail construction. During this time,

the permitted biologist will conduct weekly inspections of the site and remain on call until the project is complete. Mitigation Measure BIO-2c on page 34 of the Draft IS/MND is revised to add the suggestions in the third, fourth, and fifth bullets of the comment, as follows:

Mitigation Measure BIO-2c: Prior to construction of the Mindego Hill Trail, preconstruction surveys shall be conducted by federal and state permitted biologists in accordance with their permits. The work areas shall be clearly delineated in the field using construction fencing, stakes, or flags. The preconstruction surveys shall consist of a daytime visual survey for San Francisco garter snake, California red-legged frog, and western pond turtles, within one week of construction. If grading is scheduled between May 15 and October 15, the inspection shall also include a search for evidence of nesting western pond turtles. To avoid transferring disease or pathogens between aquatic habitats during the course of surveys or handling of California red-legged frog, the biologist shall follow the Declining Amphibian Population Task Force's Code of Practice.² After initial ground disturbance, the permitted biologist shall conduct weekly inspections of the site until the project is complete.

During initial ground-disturbing activities in all project work areas, including the Mindego Hill Trail, Ancient Oaks Connector Trail, staging area, and commemorative site, a District staff-person who has completed the survey training for the California red-legged frog and is familiar with the identification, life history, habitat and behavior of the San Francisco garter snake ~~will~~ shall survey the impact area prior to starting work, and ~~will~~ shall be present throughout the ground disturbance period to inspect the work area and areas adjacent to the work area, particularly prior to the mobilization of any equipment. In addition, any vehicle parked on-site for more than 15 minutes shall be inspected by the designated monitor before it is moved to ensure that California red-legged frog and San Francisco garter snake are not under the vehicle. Prior to use, parking areas shall also be surveyed by the monitor.

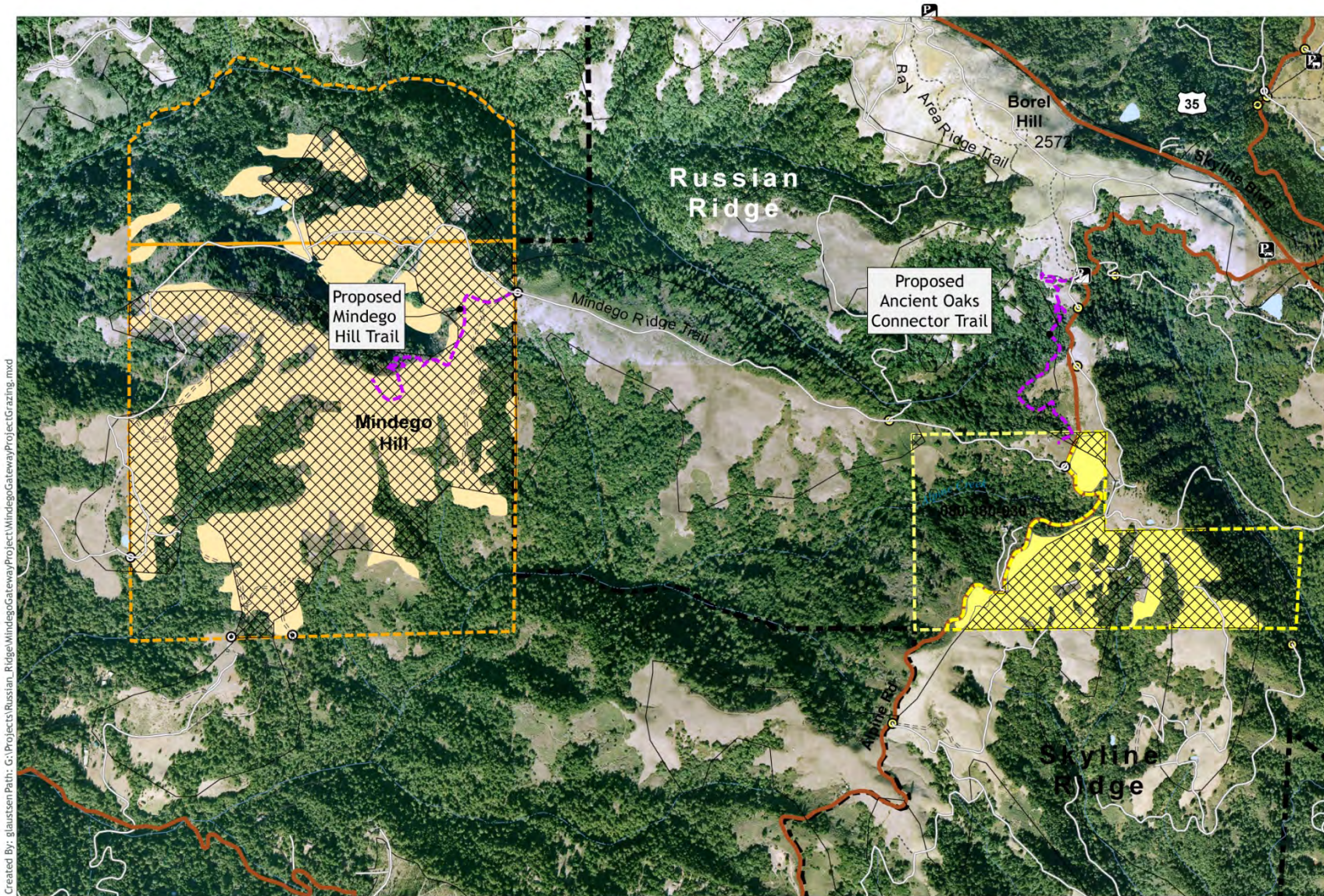
If San Francisco garter snakes or California red-legged frogs are observed on the project site at any time, the District shall contact CDFG and USFWS for further guidance. All work shall cease on the project site until the animal moves freely out of the construction zone or the District receives guidance from the resource agencies. If western pond turtles are observed within the project site, a qualified biologist and/or a District staff person who has received the environmental training shall relocate the turtle to a nearby area of suitable habitat. If a western pond turtle nest is discovered within the project site, all work within 50 feet of the nest shall cease and CDFG shall be contacted for guidance.

The District shall prepare a monitoring report detailing the above actions and findings for submittal to CDFG within 60 days following completion of the project.

Biological Resources (c)

This comment, which notes that a Lake and Streambed Alteration Agreement is required for any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank of a waterway, or use material from a waterway bed, is noted. At this time it is not anticipated that these impacts will occur due to the proposed use of clear-span bridges. The District will apply for and obtain this permit prior to construction, should final construction plans require impacts to the bed and banks of any watercourse.

² U.S. Fish and Wildlife Service, 2011. The Declining Amphibian Task Force Fieldwork Code of Practice. Website: www.fws.gov/ventura/species_information/protocols_guidelines/docs/DAFTA.pdf.



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Exhibit A: Agricultural Resources

- FMMP Grazing Lands
- Inactive Grazing Operation
- Active Grazing Operation
- Mindego Williamson Act Contract Area (Expires 12/31/18)
- Silva/Kenyon Williamson Act Contract Area (Expires 12/31/20)

Midpeninsula Regional
Open Space District
May, 2012



Date: March 14, 2012

To: Lisa Bankosh, Open Space Planner III
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022-1404

From: San Mateo County Planning & Building Dept.
Camille Leung (Planner for PLN 2011-00372, PLN 2011-00384)
Melissa Ross (Planner for PLN2011-00354)

Subject: Mindego Gateway Project
Initial Study/Draft Mitigated Negative Declaration (IS/MND)
Comments from San Mateo County Planning & Building Dept.

Dear Ms. Bankosh,

The County Planning & Building Dept. has the following comments, as they pertain to the following sections of the IS/MND:

1. Project Description

The Staging Project includes the construction of two (2) connections (a connection to the planned Ancient Oaks Trail Connector and a connection to the Mindego Lake Trail). While the location of the Mindego Lake Trail connection is clear, the location of the trail it connects to is not clear. In the drawings, the Mindego Lake Trail connection appears to end at Alpine Road. The IS/MND should show the location of all existing trails to which connections are proposed and explain, in this instance, why it is necessary for the Mindego Lake Trail connection to intersect Alpine Road.

2. Section I (Aesthetics)

This section talks about trail connections in general, without specific discussion of impacts resulting from the Mindego Lake Trail Connection associated with the Staging Project. The proposed Mindego Lake Trail Connection includes a new 6-ft wide pathway that runs along Alpine Road (a scenic road with a delineated scenic corridor). The new path will be visible from Alpine Road.

3. Section II.b.: Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project area is identified as “not zoned for agricultural use.”

The parcel zoning is correctly identified as Resource Management. Though not specifically zoned for agriculture, uses permitted in this zoning district do include agricultural uses.

Clarification of Prime and Non-Prime Agricultural Lands.

Clarification that prime or non-prime soil classifications are determined on satisfying certain criteria identified by the U.S. Department of Agriculture Natural Resources Conservation Service and adopted local plans and not solely through enrollment in Williamson Act.

Discussion and clarification on what agricultural activities occur(ed) on the parcel.

In Section II.a., Paragraph 2, there is a discussion that grazing activities in the area ceased in 2008; in Section II.b., the discussion notes that “most non-prime land is used for grazing or non-irrigated crops.” Is the latter a general statement of non-prime lands, or are grazing activities occurring elsewhere on the parcel?

Discussion and clarification of the Williamson Act contract.

A discussion of the Williamson Act contract itself and the recent non-renewal (October 2011) and pending 9-year phase-out is absent from this Section. Further, the project does not qualify as an “open space use” under the Williamson Act since the parcel is located within a County Scenic Corridor and not a State Scenic Corridor. Since the terms of a Williamson Act contract are enforceable during the non-renewal process, a discussion on the proposed recreational use, as a compatible use to agricultural activities under the Williamson Act, is requested.

4. Section II.d.: 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))?

In addition to agricultural uses, the Resource Management Zoning District allows for timber harvesting, though not zoned Timberland Production. By definition, the land is considered “forest land” and “timberland” because the land can support 10-percent native tree cover of any species and allows for the management of one or more forest resources (PRC §12220(g)), and is capable of growing a crop of trees of any commercial species for the production of lumber and other forest products (PRC §4526). The removal of trees for construction of the project may require an additional permit issued by CalFire. Please consult with the CalFire’s Resource Management Office in Felton for potential permit requirements.

5. Section VI.b and Section IX.

The discussion of the potential for erosion and run-off from the proposed projects is very general, stating project compliance with State Construction General Permit requirements. Very few details are provided regarding activities proposed for impact minimization (e.g., grading in the dry season) and no mitigation measures are recommended. No SWPPPP is attached and the IS/MND does not reference the

schematic erosion control plan(s) already submitted by MROSD to the County. It is the County's understanding that while a project must comply with State requirements, a CEQA document usually contains a detailed description of proposed activities for impact minimization (such as referencing and describing an erosion control plan) or offers mitigation measures for such impact.

6. Section IV. (Biological Resources)

The County is currently reviewing at least 3 projects covered by this IS/MND. As they have been submitted to the County under separate permit applications, environmental impacts of each project must be understood and identified separately from the other projects. However, as staff tries to identify the impacts associated with the Staging Project (which includes a trail connection to the Ancient Oaks connector trail), the MND is unclear regarding the impacts associated with the construction of the Ancient Oaks connector trail and those that may be result from the construction of the "connection" proposed under this project.

Furthermore, the lack of clarity regarding the location of impacted ephemeral drainages makes the identification of impacts resulting from the construction of the trail connection more difficult. On Page 25, the IS/MND states "Wetland features within or adjacent to the project site include several ephemeral drainages flowing to Mindego Creek". On Page 38 of the IS/MND states "Six ephemeral drainage channels are present along the proposed Ancient Oaks Connector Trail". These six drainages need to be identified clearly on a map so that impact to one or more drainages by a particular project may be understood. It is unclear whether the connection to the Ancient Oaks connector trail from the staging area will impact one of these drainages.

7. Section IV.a (Biological Resources)

While it is clear that special status plant species potentially occur along the Ancient Oaks connector trail, it is unclear whether special status plant species occur in any other project areas. If not, it is suggested that the IS/MND state this conclusively.



State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Bay Delta Region
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EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director



March 19, 2012

Ms. Lisa Bankosh
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022

Dear Ms. Bankosh:

Subject: Mindego Gateway Project Initial Study/Mitigated Negative Declaration,
SCH #2012022049, Town of La Honda, San Mateo County

The Department of Fish and Game (DFG) has reviewed the Initial Study/Mitigated Negative Declaration (IS/MND) for the Mindego Gateway Project (Project). The Midpeninsula Regional Open Space District (District) is proposing to construct an approximately 1.75-acre staging area, commemorative site, two new trail segments approximately 2.2 miles in length, and three new stream crossings in the Russian Ridge Open Space Preserve to enhance public access to the current trail network and provide interpretive and education information. The staging area includes a 20-space parking lot, an unpaved special event parking lot for 42 additional vehicles that will also be used as an emergency helicopter landing zone, and a vault restroom. The commemorative site will require 100 cubic yards of grading to provide a paved ADA-compliant pathway to a paved viewing platform and concrete plank walkway and wood viewing deck. One of the two proposed trails will be designated as multi-use and will be between three and five feet wide and constructed of decomposed granite or similar permeable material and dirt. The other three-foot wide trail will pass through grassland, be constructed of dirt, and will be restricted to hikers and equestrians only. The three new stream crossings will consist of two clear-span bridges and one clear-span puncheon. In addition, up to two existing culverted crossings on old road alignments along the proposed trail will be repaired or removed to reduce ongoing impacts to downstream water quality. DFG is providing comments on the draft IS/MND as a Trustee Agency pursuant to the California Environmental Quality Act (CEQA) Section 15386 and as a Responsible Agency. As trustee for the State's fish and wildlife resources, DFG has jurisdiction over the conservation, protection, and management of the fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species for the benefit and use by the people of California. As a Responsible Agency DFG issues Lake and Stream Alteration Agreements (LSAA) pursuant to Fish and Game Code 1600 et. seq.

Mitigation Measure BIO-1b

This mitigation measure relates to special-status plant mitigation and monitoring. The IS/MND states a five-year monitoring plan shall be developed by the District. DFG recommends a minimum of a five-year monitoring plan in order to determine the success of the propagation and or reseeding program. The monitoring plan criteria should specify that all plantings have a minimum of 80% survival at the end of six years, attain 70% coverage after three years, and

attain 75% coverage after five years. If the survival and cover rates are not meeting the minimum requirements, replacement planting, additional watering, weeding, invasive exotic eradication, or any other corrective practice should be implemented to achieve those requirements. Replacement plants then should be monitored with the same survival and growth criteria for up to five years after planting. DFG recommends submitting a monitoring plan to DFG for approval before the project starts construction.

Table 3

Under Status in Table 3, the IS/MND designates many bird species as "BCC" and bats as "WBWG" but these statuses are not defined in the key to the table. Please state the definitions in the key and cite the sources, if appropriate.

Mitigation Measure BIO-2a

This mitigation measure states that signage will be installed to designate the closure of the trail to bicycles. As stated in the IS/MND, the San Francisco garter snake (SFGS) is a fully protected species under Fish and Game Code Section 5050 and cannot be "taken" or possessed unless it is for scientific purposes or aids in the recovery of the species. Fish and Game Code Section 86 defines take as "to hunt, pursue, catch, capture, or kill, or to attempt to hunt, pursue, catch, capture, or kill." SFGS have been found on the trail and it has been shown on other trails that mountain bikers may have a difficult time avoiding snakes due to their speed, even on trails with no visibility issues¹. To adequately protect SFGS, DFG recommends closing the trail to bicycle use by placement of a bicycle barrier in addition to the proposed signage at the trail head.

Mitigation Measure BIO-2c

Because SFGS have been found 700 feet west of the proposed trail, additional mitigation measures should be incorporated into the Project to avoid taking of SFGS. California red-legged frog (CRLF) is known to occur in Mindogo Lake, and the SFGS measures will also minimize and potentially avoid impacts to CRLF. DFG recommends the following minimization and avoidance measures are included during construction activities to protect SFGS and CRLF:

- Biological monitor(s) and/or qualified biologists shall be on the Project site while project activities are being conducted.
- In consultation with DFG, exclusion fencing shall be installed around the Project sites where feasible and around staging areas to exclude SFGS and CRLF from those areas.
- A biological monitor shall daily inspect the Project work area and areas adjacent to the work area that will support excavation equipment prior to mobilization of excavation equipment. If the biological monitor determines that sensitive species are not within the work area, equipment or materials may be moved onto the work site and Project activities may commence under the observation of the biological monitor.

¹ Michael J. Vandeman, Ph.D., "The Impacts of Mountain Biking on Amphibians and Reptiles," October 22, 2005. March 14, 2011. <http://mjvande.nfshost.com/herp.htm>.

Ms. Lisa Bankosh
March 19, 2012
Page 3

- Any vehicle parked on-site for more than 15 minutes shall be inspected by the biological monitor before it is moved to ensure that CRLF and SFGS have not moved under the vehicle. Prior to being used, parking areas must be checked by the biological monitor or qualified biologist.
- To avoid transferring disease or pathogens between aquatic habitats during the course of surveys or handling of CRLF, the qualified biologist shall follow the Declining Amphibian Population Task Force's Code of Practice. The practices can be found at: http://www.fws.gov/ventura/species_information/protocols_guidelines/docs/DAFTA.pdf

Additional guidelines for surveys and handling of the California red-legged frog described under "Additional guidelines for surveys and handling of the California red-legged frog and the California Tiger Salamander" shall be adhered to. Guidelines can be found at: http://www.fws.gov/sacramento/ES/Survey-Protocols-Guidelines/es_survey.htm. DFG is available for consultation or further guidance on avoidance measures for SFGS.

Biological Resources (c)

The IS/MND states that permits and/or mitigation are not required for the channel crossings. Please be advised that for any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a waterway, or use material from a waterway bed, an LSAA application is required pursuant to Section 1600 et seq. of the Fish and Game Code. The District should submit a notification to DFG for the stream crossings pursuant to Section 1602 of the Fish and Game Code and DFG will then make the determination if an LSAA is required. Issuance of an LSAA is subject to CEQA, and DFG as a responsible agency under CEQA will consider the CEQA document for the project. The CEQA document must address alternatives and mitigation measures to minimize or mitigate for impacts to the waterway and associated resources.

DFG appreciates the opportunity to comment on the IS/MND. If you have any questions, please contact Ms. Suzanne DeLeon, Environmental Scientist, at (831) 440-9433; or Mr. Craig Weightman, Acting Environmental Program Manager at (707) 944-5577.

Sincerely,



Scott Wilson
Acting Regional Manager
Bay Delta Region

cc: State Clearinghouse

ATTACHMENT D

MITIGATION MONITORING AND REPORTING PROGRAM FOR THE MINDEGO GATEWAY PROJECT

This Mitigation Monitoring and Reporting Program (MMRP) was formulated based on the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the proposed Mindego Gateway Project (proposed project) prepared for the Midpeninsula Regional Open Space District (District). This MMRP is in compliance with Section 15097 of the *CEQA Guidelines*, which requires that the Lead Agency “adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.” The MMRP has been prepared in tabular form (see Table 1). The MMRP lists mitigation measures recommended in the IS/MND and identifies mitigation monitoring requirements.

Table 1 presents the mitigation measures identified for the proposed project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, Mitigation Measure AIR-1 is the first mitigation measure identified in the IS/MND.

The first column of Table 1 identifies the mitigation measure. The second column, entitled “Party Responsible for Implementation,” names the party responsible for carrying out the required action. The third column, “Implementation Timing,” identifies the time the mitigation measure should be initiated. The fourth column, “Party Responsible for Monitoring,” names the party ultimately responsible for ensuring that the mitigation measure is implemented. “Action by Monitor” outlines the steps for monitoring the action identified in the mitigation measure. The last column, entitled “Monitoring Timing,” states the time the monitor must ensure that the mitigation measure has been implemented.

Table 1: Mitigation Monitoring and Reporting Program

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Party Responsible for Monitoring	Action by Monitor	Monitoring Timing
III. Air Quality					
<p><u>AIR-1</u>: The construction contractor shall implement the following measures at all construction sites:</p> <ul style="list-style-type: none"> • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day when conditions are dry. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt tracked-out onto adjacent public roads shall be removed. The use of dry power sweeping shall be prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • All parking areas and driveways to be paved shall be completed as soon as possible. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations (CCR)). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with the manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • A publicly visible sign shall be posted with the telephone number and person to contact at the District regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD’s phone number shall also be visible to ensure compliance with applicable regulations. 	Construction manager/ District staff	Ongoing throughout project construction	District	Verify that Construction Contractor and District construction crews implement the measures outlined in Mitigation Measure AIR-1	Throughout project construction activities
IV. Biological Resources					
<p><u>BIO-1a</u>: Prior to construction, a focused plant survey following CDFG protocol shall be conducted for robust monardella and Dudley’s lousewort on the proposed Ancient Oaks Connector Trail alignment during the late spring/early summer blooming period (generally between April and June for Dudley’s lousewort and June through August for robust monardella). If these species are not found during the focused survey, no additional mitigation measures for special-status plants are necessary.</p>	District biologist	During the late spring/early summer blooming period	District/CDFG	Ensure that focused plant surveys are conducted along the Ancient Oaks Connector Trail alignment	Prior to construction

Table 1 Continued

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Party Responsible for Monitoring	Action by Monitor	Monitoring Timing
<p>BIO-1b: If special-status plants are found during the focused survey required in Mitigation Measure BIO-1a, the population shall be mapped and, in consultation with the Department of Fish and Game, a suitable buffer zone established around the population (based on species requirements, proximity to the work area, and other site specific factors) in which no trail construction, material storage, or staging activities will be allowed. If it is not feasible to avoid populations of robust monardella and/or Dudley's lousewort, seed shall be collected from the plants that will be affected by trail construction and a propagation and/or reseeding plan shall be developed in coordination with the CDFG. Rare plant populations shall be mitigated at a minimum 1:1 ratio (impacted: reestablished) as measured on the basis of area impacted, number of plants impacted, or number of plant populations impacted. Seeds or propagated plants shall be planted in suitable habitat on the project site or on adjacent open-space lands. A 6-year (at minimum) monitoring plan to document the success of the propagation and/or reseeding program shall also be developed by the District and approved by CDFG before the start of project construction. The monitoring plan shall specify that plantings attain 70 percent coverage after three years and 75 percent coverage after five years, and have a minimum 80 percent survival rate at the end of six years. If the survival and cover rates do not meet the minimum requirements, replacement planting, additional watering, weeding, invasive weed eradication, or other corrective practices necessary to achieve the noted requirements shall also be implemented. Replacement plantings shall also be monitored with the same survival and growth criteria for up to five years after planting. The monitoring plan shall be submitted to CDFG for approval prior to project construction.</p>	District biologist	In the event that special-status plants are identified on the Ancient Oaks Connector Trail alignment, establish buffers throughout construction and develop the reseeding program prior to construction.	District/CDFG	Ensure that appropriate buffers are in place and that the measures outlined in Mitigation Measure BIO-1b are implemented for the Ancient Oaks Connector Trail alignment, if necessary	Prior to and throughout the construction period, if necessary
<p>BIO-2a: To ensure compliance with trail use restrictions, appropriate signage shall be installed that clearly designates: 1) the trail sections that will be closed to bicycle use and 2) vehicle speed limits. Interpretive signs shall also be installed to educate users about the biological sensitivity of the Mindego area and the District's protection and enhancement measures. To further ensure that bicyclists do not access the existing Mindego Ridge Trail or the new Mindego Hill Trail, a District-standard bicycle barrier shall also be placed at the Mindego Ridge Trail trailhead.</p>	District staff	Prior to project operation	District	Ensure that appropriate signage is installed and as outlined in Mitigation Measure BIO-2a	Prior to project operation
<p>BIO-2b: On the first day of construction and prior to the start of any ground clearing, all workers shall participate environmental education training session given by a qualified biologist at the project site. A signature sheet shall be maintained to ensure all personnel receive training. The education training shall include a description of the San Francisco garter snake, California red-legged frog, and western pond turtle and their habitat, the general provisions of the Endangered Species Act, the necessity of adhering to the Act to avoid penalty (for San Francisco garter snake and California red-legged frog only), and measures implemented to avoid affecting San Francisco garter snake, California red-legged frog, and western pond turtle specific to the project and the work boundaries of the project.</p>	Construction manager/ District staff	On the first day of construction and prior to the start of any ground-clearing activities	District	Ensure that the training session is completed as outlined in Mitigation Measure BIO-2b	On the first day of construction and prior to the start of any ground-clearing activities

Table 1 *Continued*

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Party Responsible for Monitoring	Action by Monitor	Monitoring Timing
<p>BIO-2c: Prior to construction of the Mindego Hill Trail, preconstruction surveys shall be conducted by federal and state permitted biologists in accordance with their permits. The work areas shall be clearly delineated in the field using construction fencing, stakes, or flags. The preconstruction surveys shall consist of a daytime visual survey for San Francisco garter snake, California red-legged frog, and western pond turtles, within one week of construction. If grading is scheduled between May 15 and October 15, the inspection shall also include a search for evidence of nesting western pond turtles. To avoid transferring disease or pathogens between aquatic habitats during the course of surveys or handling of California red-legged frog, the biologist shall follow the Declining Amphibian Population Task Force’s Code of Practice. After initial ground disturbance, the permitted biologist shall conduct weekly inspections of the site until the project is complete.</p> <p>During initial ground-disturbing activities in all project work areas, including the Mindego Hill Trail, Ancient Oaks Connector Trail, staging area, and commemorative site, a District staff-person who has completed the survey training for the California red-legged frog and is familiar with the identification, life history, habitat and behavior of the San Francisco garter snake shall survey the impact area prior to starting work, and shall be present throughout the ground disturbance period to inspect the work area and areas adjacent to the work area, particularly prior to the mobilization of any equipment. In addition, any vehicle parked on-site for more than 15 minutes shall be inspected by the designated monitor before it is moved to ensure that California red-legged frog and San Francisco garter snake are not under the vehicle. Prior to use, parking areas shall also be surveyed by the monitor.</p> <p>If San Francisco garter snakes or California red-legged frogs are observed on the project site at any time, the District shall contact CDFG and USFWS for further guidance. All work shall cease on the project site until the animal moves freely out of the construction zone or the District receives guidance from the resource agencies. If western pond turtles are observed within the project site, a qualified biologist and/or a District staff person who has received the environmental training shall relocate the turtle to a nearby area of suitable habitat. If a western pond turtle nest is discovered within the project site, all work within 50 feet of the nest shall cease and CDFG shall be contacted for guidance.</p> <p>The District shall prepare a monitoring report detailing the above actions and findings for submittal to CDFG within 60 days following completion of the project.</p>	<p>District biologist</p>	<p>Conduct pre-construction surveys prior to construction of the Mindego Hill Trail as specified in Mitigation Measure BIO-2c</p> <p>Monitor all construction areas throughout the construction period</p> <p>Implement avoidance measures throughout the construction period</p> <p>Submit the monitoring report within 60 days of project completion</p>	<p>District</p>	<p>Ensure that the preconstruction surveys, monitoring, avoidance and reporting measures are implemented as outlined in Mitigation Measure BIO-2c</p>	<p>Prior to, during and upon completion of construction</p>

Table 1 Continued

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Party Responsible for Monitoring	Action by Monitor	Monitoring Timing
<p>BIO-3: Vegetation removal shall be limited to the minimum necessary to construct the project. If feasible, project construction shall take place outside of the breeding bird season (the breeding bird season is generally February 15 to August 15). If work must be conducted during the breeding season, a qualified biologist shall conduct a pre-construction nesting bird survey throughout areas of suitable habitat located within 300 feet of the project site and no more than 30 days prior to the initiation of site preparation, construction activity, tree trimming, or vegetation removal. If active bird nests are observed, a buffer zone shall be established around the nest to protect nesting adults and their young from construction disturbance. Buffer zones shall have a 300-foot radius for raptors (such as Golden Eagle and White-tailed kite), 100-foot radius for a passerine Species of Special Concern, and 25 to 50-feet (depending on species and nest location) for common bird species. The radius of the buffer zone shall be centered on the nest or nest tree/shrub. Smaller buffer zones may be established if it is determined by a qualified biologist in consultation with CDFG that the site conditions and/or species sensitivity to disturbance warrant a reduction in the buffer size. Additional monitoring may be required for buffer zones that are smaller than the typical size. Buffer zones shall be clearly delineated with stakes and flagging or construction fencing. No construction, material storage, staging, parking, or entrance shall be allowed in the buffer zone with the exception of biological monitors monitoring the status of the nests. The buffer zone shall be maintained until the young are fledged and foraging independently, as determined by a qualified biologist.</p>	<p>District biologist</p>	<p>Conduct pre-construction surveys no more than 30 days prior to the start of construction if occurring during the breeding season (February 15 to August 15)</p> <p>Establish buffer zones prior to and throughout the construction period, if necessary</p>	<p>District/CDFG</p>	<p>Ensure that pre-construction surveys are conducted and buffers are established as outlined in Mitigation Measure BIO-3, if necessary</p>	<p>Prior to and throughout construction, if necessary</p>
<p>BIO-4: No more than 30 days prior to the initiation of site preparation, construction activity, vegetation removal, or tree trimming, a qualified biologist shall inspect the proposed trail alignment, staging area, and/or access road and adjacent areas within 50 feet for woodrat nests. An exclusion zone shall be erected around any potentially affected woodrat nest using a temporary fence that does not inhibit the natural movements of wildlife (such as steel T-posts and a single strand of yellow rope or similar materials). If feasible, the trail shall be relocated to avoid impacting woodrat nests, even if avoidance is by only a few feet. If woodrat nests cannot be avoided during trail construction, woodrats shall be relocated by live-trapping and relocated to nearby temporary shelters as a release site. An inverted half wine barrel containing woody debris from the impacted nest shall provide the temporary shelter. The plan to live trap and relocate woodrats shall be approved by CDFG.</p>	<p>District biologist</p>	<p>Conduct pre-construction surveys no more than 30 days prior to the start of construction.</p> <p>Establish exclusion zones and/or relocate species throughout the construction period, if necessary</p>	<p>District/CDFG</p>	<p>Ensure that pre-construction surveys are completed and that appropriate avoidance measures are implemented as outlined in Mitigation Measure BIO-4</p>	<p>Prior to and throughout the construction period, if necessary</p>

Table 1 Continued

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Party Responsible for Monitoring	Action by Monitor	Monitoring Timing
<p>BIO-5: No more than 10 days prior to the initiation of site preparation, construction activity, vegetation removal, or tree trimming, a qualified biologist shall inspect the proposed trail alignment, staging area, and/or access road and adjacent areas within 25 feet for badger dens. If an active den is located, a qualified biologist shall determine if the burrow is occupied by using either a burrow camera, track plates, or direct observations to determine the contents of the burrow. If the den is determined to be an active natal den, work shall cease within 100 feet of the burrow and either the trail moved to avoid impacts to the den if feasible or have a qualified biologist monitor the burrow until the young have dispersed. If the burrow is occupied by an adult badger without young the burrow shall be hand-excavated to allow the badger to escape. If the burrow is not occupied by a badger, the burrow shall be sealed with a hand shovel.</p>	District biologist	<p>Conduct pre-construction surveys no more than 10 days prior to the start of construction.</p> <p>Implement avoidance measures throughout the construction period, if necessary</p>	District	Ensure that pre-construction surveys are completed and that appropriate avoidance measures are implemented as outlined in Mitigation Measure BIO-5	Prior to and throughout the construction period, if necessary
<p>BIO-6: Prior to construction, fencing shall be installed around blue wild rye grass-land to prevent encroachment of equipment or construction personnel into sensitive habitat. Invasive, non-native plant species that occur adjacent to the work area shall be removed or controlled to prevent encroachment into adjacent habitats.</p>	District staff	Prior to construction	District	Ensure that fencing is installed and invasive plants are removed as outlined in Mitigation Measure BIO-6	Prior to construction
<p>BIO-7: If mature trees or snags are removed during the bat breeding season (April 1 through August 31), a qualified bat biologist shall inspect trees for potential roost sites. If no potential roost sites are found, no additional mitigation would be necessary. If bat roosts are found, direct disturbance to the roost shall be avoided during the breeding season. If a potentially suitable roost tree is removed in the non-breeding season, a qualified biologist shall inspect the tree prior to removal to ensure that bats are not occupying the roost. If bats are determined to be present, tree removal shall be suspended until the bats have left. Netting can be placed over the entrance of a roost site to allow bats to emerge but not return. Partially exposing a potential roost site (such as removing a tree limb or bark) after the bats have left can also make the roosts unattractive to bats so they will not return. Exclusion or partial exposure of a roost before tree removal shall be monitored by a qualified biologist.</p>	District biologist	<p>Conduct surveys prior to removal of mature trees or snags if occurring during the breeding season (April 1 through August 31).</p> <p>Implement avoidance measures throughout the construction period, if necessary</p>	District	Ensure that pre-construction surveys are conducted and avoidance measures are implemented as outlined in Mitigation Measure BIO-7	Prior to and throughout construction

Table 1 Continued

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Party Responsible for Monitoring	Action by Monitor	Monitoring Timing
V. Cultural Resources					
<p>CULT-1a: Due to the observation of chipped stone artifacts within the vicinity of the proposed parking/staging area, all initial ground disturbance activities during construction of the parking/staging area shall be monitored by a qualified archaeological professional. If cultural and/or historical resources are encountered during construction, the measures outlined in CULT-1b shall be followed.</p>	District archaeologist	During all initial ground disturbing activities during construction of the parking/staging area	District	Ensure that monitoring is conducted as outlined in Mitigation Measure CULT-1a	During all initial ground disturbing activities during construction of the parking/staging area
<p>CULT-1b: Implementation of the following measures would reduce potential impacts to cultural and historical resources, including buried and unknown archeological and paleontological resources to a less-than significant level:</p> <ul style="list-style-type: none"> • If any commonly recognized sensitive cultural resource such as human formed artifacts, including projectile points, grinding stones, bowls, baskets, historic bottles, cans, or trash deposits are encountered during project construction, every reasonable effort shall be made to avoid the resource. Work shall stop within 100 feet of the object(s) and the contractor shall contact the District. No work shall resume within 100 feet until a qualified cultural and/or historical resources expert can assess the significance of the find. • A reasonable effort shall be made by the District to avoid or minimize harm to the discovery until significance is determined and an appropriate treatment can be identified and implemented. Methods to protect finds include fencing and covering with protective material such as culturally sterile soil or plywood. • If vandalism is a threat, 24-hour security shall be provided. • Construction outside of the find location can continue during the significance evaluation period and while mitigation for cultural and/or historical resources is being carried out, only if a qualified cultural and/or historical resources expert is present onsite monitoring any additional subsurface excavations within 100 feet of the find. • If a resource cannot be avoided, a qualified cultural and/or historical resources expert shall develop an appropriate Archaeological or Paleontological Action Plan for treatment to minimize or mitigate the adverse effects. The District shall not proceed with reconstruction activities within 100 feet of the find until the Action Plan has been reviewed and approved by the District General Manager. • Findings will be detailed in a professional report in accordance with current professional standards. Any non-grave associated artifacts will be curated with an appropriate repository. • Project documents shall include a requirement that project personnel shall not collect cultural and/or historical resources encountered during construction. This measure is consistent with federal guideline 36 CFR 800.13(a) for invoking unanticipated discoveries. 	District archaeologist	Throughout the construction period	District	Ensure that the construction-period measures are implemented as outlined in Mitigation Measure CULT-1b	Throughout the construction period

Table 1 *Continued*

Mitigation Measures	Party Responsible for Implementation	Implementation Timing	Party Responsible for Monitoring	Action by Monitor	Monitoring Timing
<p>CULT-2: If human remains are encountered, all work within 100 feet of the remains shall cease immediately and the contractor shall contact the District. The District shall contact the San Mateo County Coroner to evaluate the remains, and follow the procedures and protocols set forth in §15064.5(e) of the <i>CEQA Guidelines</i>. No further disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has made a determination of origin and disposition, which shall be made within two working days from the time the Coroner is notified of the discovery, pursuant to State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) within 24 hours, which will determine and notify the Most Likely Descendant (MLD). The MLD may recommend within 48 hours of their notification by the NAHC the means of treating, with appropriate dignity, the human remains and grave goods. In the event of difficulty locating a MLD or failure of the MLD to make a timely recommendation, the human remains and grave goods shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.</p>	<p>District archaeologist/ District staff</p>	<p>Throughout the construction period</p>	<p>District</p>	<p>Ensure that the construction-period measures are implemented as outlined in Mitigation Measure CULT-2</p>	<p>Throughout the construction period</p>

Source: LSA Associates, 2012.

ATTACHMENT E

RESOLUTION NO. 12-XX

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE MIDPENINSULA REGIONAL OPEN SPACE DISTRICT ADOPTING THE MITIGATED NEGATIVE DECLARATION, THE MITIGATION MONITORING PROGRAM, AND THE FINDINGS IN CONNECTION WITH THE PROPOSED MINDEGO GATEWAY PROJECT (RUSSIAN RIDGE OPEN SPACE PRESERVE)

WHEREAS The Board of Directors of the Midpeninsula Regional Open Space District (“District”) has reviewed the proposed Mindego Gateway Project and all associated actions (“the Project”) and has reviewed the Mitigated Negative Declaration (“MND”) analyzing the environmental effects of the Project;

NOW, THEREFORE, BE IT RESOLVED by the District Board of Directors that, based upon the Initial Study, Mitigated Negative Declaration, Mitigation Monitoring Program, all comments received, and all substantial evidence in light of the whole record presented, the Board of Directors find that:

1. Notice of the availability of the Initial Study and Mitigated Negative Declaration and all hearings on the MND were given as required by law and the actions were conducted pursuant to California Environmental Quality Act (CEQA) and the CEQA Guidelines.
2. All interested parties desiring to comment on the MND were given the opportunity to submit oral and written comments on the adequacy of the MND prior to this action by the Board of Directors. Two comments were received.
3. Prior to approving the Project that is the subject of the MND, the Board has considered the MND, along with all comments received during the public review process. In response to comments received, staff has made modifications to the MND and mitigation measures.
4. The Board finds that modifications to the MND in response to comments received during the public review process clarify, amplify and make insignificant modifications to the MND, which does not require recirculation in accordance with Section 15073.5 of the CEQA Guidelines.
 - a) The Board finds that it is desirable to replace certain proposed mitigation measures with those mitigation measures revised in response to the comments to the MND and that the revised mitigation measures are equivalent or more effective in mitigating environmental impacts than the original measures.
5. The Board finds that, on the basis of the whole record before it, including the Initial Study and MND, that there is no substantial evidence that the Project will have a significant effect on the environment in that, although the proposed Project could have significant effects on the environment, there will not be a significant effect in this case since Mitigation Measures have been made a part of the Project to avoid such effects.
6. The Board adopts the MND and determines that the MND reflects the District’s independent judgment and analysis.

7. The Board adopts the attached Mitigation Monitoring and Reporting Program and will require it to be implemented as part of the Project.

8. The location and custodian of the documents or other material, which constitute the record of proceedings upon which this decision is based are located at the offices of the General Manager of the Midpeninsula Regional Open Space District, 330 Distel Circle, Los Altos, California 94022.

ATTACHMENT F

RESOLUTION NO. 12-XX

**RESOLUTION OF THE BOARD OF DIRECTORS OF MIDPENINSULA REGIONAL
OPEN SPACE DISTRICT (DISTRICT) AUTHORIZING APPROVAL OF
AMENDMENTS TO LAND CONSERVATION (WILLIAMSON) ACT CONTRACTS ON
DISTRICT LANDS**

WHEREAS: Certain properties acquired by the Midpeninsula Regional Open Space District (District) are acquired already subject to California Land Conservation (Williamson) Act contracts with the host County, City, or Town in whose jurisdiction the subject property lies;

WHEREAS: Some of those contracts have out-of-date terms that do not allow for passive recreational use and related facilities as compatible uses;

WHEREAS: Occasionally, there is a project approved by the Board of Directors that involves the need to locate such facilities on Williamson Act contracted lands;

WHEREAS: In some instances, it is possible and appropriate to amend such a contract, to update the compatible uses permitted within a contract to allow for the proposed open space, recreational uses and related facilities;

WHEREAS: Such amendments are consistent with the Williamson Act mission of preserving agricultural lands, and with the District's mission of preserving open space and providing passive recreation and educational uses, and these missions are compatible and mutually supportive;

WHEREAS: It would be inefficient and cause unnecessary delays to require the General Manager to bring each and every approval of the execution of such amendments to the Board of Directors.

THEREFORE: The Board of Directors of Midpeninsula Regional Open Space District does resolve as follows:

Section One. The General Manager is authorized to negotiate and execute amendments to any Williamson Act contract on District lands, as necessary to implement any project approved on contracted lands.

* * * * *