MARIN COUNTY PARKS
INITIAL STUDY

COMMUNITY SERVICE AREA 14 (HOMESTEAD VALLEY)

LAND MANAGEMENT PLAN

I. BACKGROUND

A. Lead Agency Name and Address	County of Marin Marin County Parks 3501 Civic Center Drive, Suite 260 San Rafael, California 94903
B. Contact Person and Phone Number	Craig Richardson (415) 473- 7057

II. PROJECT DESCRIPTION

A. Project Title:	Community Service Area 14 (Homestead Valley) Land Management Plan
B. Type of Application(s):	
C. Project Location: the City of Mill Valley	Southern unincorporated Marin County, adjacent to
D. General Plan Designation:	Open Space/Planned Residential
E. Zoning: Planned)	OA (Open Area)/RMP-1 (Residential Multiple

F. Project Description:

Marin County Parks (Parks) is proposing to adopt a Land Management Plan (LMP) to guide the long-term management of public open space and park lands within Community Service Area (CSA) 14 (also known as Homestead Valley).

The LMP will provide Parks and HVLT with a framework for selecting best management practices, prioritizing projects, timing and sequencing work for maximum effectiveness, and using adaptive management to help ensure that public monies are effectively and efficiently spent to meet stated goals and objectives. The LMP will also ensure that management actions are consistent with Marin County Parks' draft Vegetation and Biodiversity Management Plan and draft Road and Trail Management Plan. The LMP includes a comprehensive list of land management recommendations and is intended to have a ten year planning horizon.

Study Area and Project Area

Created by action of the Marin County Board of Supervisors in 1967, CSA 14 is located in unincorporated Marin County just south of Mill Valley (Figure 1). Marin County owns the public open space within CSA 14 and Homestead Valley Land Trust (HVLT), a non-profit organization maintains the area under a Memorandum of Agreement. The study area and LMP cover seven zones (Figure 1), located in Homestead Valley. The seven zones cover approximately 85 acres of steep and rugged land in a semi-rural setting located adjacent to approximately 100 homes and lands of the Golden Gate National Recreation Area. These zones are locally designated by the HVLT based on topography, natural features, and ownership by Parks.

The study area is densely vegetated with forest, scrub and grassland components, with a high proportion of native habitats dominated by native plant species. The study area includes Stolte Grove, a small park, supporting a grove of redwoods. Reed Creek, a tributary to Arroyo Corte Madera del Presidio, runs through the middle of the valley. Elevations in the study area range from approximately 44-183 meters (145-600 feet) above mean sea level (MSL). The underlying geology is mapped as mélange and does not include any serpentine. Two soil units are mapped within the study area: Tocaloma-McMullin complex, 30-50 percent slopes and Tocaloma-McMullin-Urban land complex, 15-30 percent slopes.

Project Components

Since the founding of the HVLT, Marin County Parks and HVLT have collaborated to maintain these public lands for the primary goals of: fire fuel reduction; native species preservation; trail and park maintenance; and community engagement. Proposed management actions would be consistent with Marin County Parks' Draft Vegetation and Biodiversity Management Plan and Draft Road and Trail Management Plan that will be used to guide work on Parks' 34 open space preserves. A summary of the management actions proposed in the LMP is provided below.

a. Fire Fuel Reduction

Current fire fuel management activities include: clearing of brush that would function as a fuel ladder in groves of trees; spot removal of highly combustible pine, fir, and eucalyptus trees; removing dead trees, tree limbs, and woody debris; and maintaining (clearing) defensible spaces near residences that abut lands within CSA 14. Each of these projects generally includes fire-fuel reduction in a specified geographic area and zone.

General steps involved include:

- Cutting brush and grasses to ground level using brushcutters, weedeaters, mowers, or other light equipment.
- Removing tree seedlings and saplings from the understory.
- Limbing up of mature trees to a height of ten feet to break the vegetation connection (fuel ladder) between ground and canopy vegetation.
- Treating invasive plants.

- Broom, eucalyptus, and acacia species will be cut and painted with herbicides immediately after cutting or mowing (as approved by County Integrated Pest Management (IPM) and overseen by a Pest Control Advisor (PCA).

- Treating green waste.
  - Collecting and chipping cut materials or collecting and stacking in low tight wind rows onsite.
  - Piling and burning brush in areas of low fire danger.[1]
  - For invasive plants, storing green waste within already infested areas to prevent spread to other areas.

- Following initial treatment, initiating annual inspection and mowing/hand pulling treatments to keep area functional for fire management purposes.

- As needed, installing erosion control, seeding mixtures, or rooted plant material to restore the site to natural conditions.

In addition to current fire management activities, the following actions are recommended as part of the LMP:

- Work with fire agencies to map Defensible Space Zones[2] (DSZs) in all areas, and reassess those DSZs every 5-10 years to determine if the overall site is meeting fire management objectives.

- Work with Marin County, Golden Gate National Recreation Area (GGNRA), fire agencies, and adjacent property owners to help establish and maintain DSZs.

- Implement a long-term forest stand conversion program to reduce and eventually replace eucalyptus and acacia forests.

b. Invasive Plant Control

Land management actions to control invasive plant species are closely tied to and overlap efforts to manage fire fuels. In addition to the actions described above, the following invasive plant control activities are recommended as part of the LMP:

French Broom

- Reassess French broom control actions within Zones 1, 2, 3, 5, and 6. Remap and reassess distribution of French broom relative to ongoing mowing, fuels management, road and trail locations and grazing. Modify treatment methods, if needed, to reduce potential for spread. Identify new priority locations, as needed.

[1] Pile burning is a method of brush removal whereby cut material is piled by hand and a small amount of flammable liquid is lit in a specialized firing device (drip-torch) and the pile is burned. Pile burning would be conducted in accordance with Bay Area Air Quality Management District (BAAQMD) Regulation 5, and all applicable state and local ordinances. Pile burning requires review and approval by Marin County Parks (Parks) and must be implemented by the appropriate fire agency or Parks.
[2] DSZs are defined to include lands within 100 feet of habitable structures.

- In Zones 2, 3 and 6, discontinue use of hand pulling as the primary method of control and replace with mowing followed by cut and paint application of herbicides until 80 percent control is achieved. When 80 percent control is achieved, switch to hand pulling or flaming[3] followed by hand pulling.

- In Zones 1 and 5, conduct focused broom control for 1-3 years starting with hand-pulling individual plants and sparse occurrences in mostly cleared areas to create containment areas. Once containment is achieved, switch primary control method to mowing followed by cut and paint application of herbicides until 80 percent control is achieved, then switch to hand pulling or flaming followed by hand pulling.

Zone 3

- Prioritize the annual control of sparse pioneer invasive plants at Cowboy Rock, focusing on pampas grass clusters, Harding grass, thistle, and broom.

- Conduct invasive plant control "sweeps" of the entire zone for 1-3 years starting with hand pulling individual plants and sparse occurrences, in mostly cleared areas until containment areas are created. Once containment is achieved, switch primary control method to mowing followed by cut and paint application of herbicides until 80 percent containment is achieved, then switch to hand pulling or flaming followed by hand pulling.

Zones 1 and 2

- Prioritize removal of invasive species in areas mapped as native perennial grassland.

- Conduct invasive plant control "sweeps" of the perennial grasslands for 1-3 years starting with hand pulling individual plants and sparse occurrences, in mostly cleared areas to achieve control.

Zone 4

- Remove and control English ivy, periwinkle and pittosporum in and adjacent to the banks of Reed Creek.

- Starting with the banks of Reed Creek, cut and roll ivy and periwinkle like a carpet then cover with black plastic, or, if herbicide is used, select herbicides that are EPA-approved for use near water. The most effective approach includes cutting the stems and then immediately spot treating with herbicide. Leave black plastic in place for 1-2 years until remaining invasive plant material is dead. Work in small sections and then move into adjacent areas until the entire creek corridor is free of invasive plants.

c. Habitat Restoration

Current reforestation and ecosystem restoration work involves removal of invasive, and potentially fire hazardous vegetation, weeding, and planting, as available resources allow. Activities include hand pulling, mowing, and brush cutting invasive plants and removing accumulated forest debris and litter (in

[3] Flaming is an organic vegetation management technique in which intense heat is used to selectively kill weed seedlings without harming native species.

eucalyptus forests), then planting the site with native oak woodland species. In addition to the projects outlined in HVLT's *Ten Year Plan*[4], the following projects are recommended as part of the LMP:

- Formalize the ongoing eucalyptus forest/stand conversion project (Zone 2). Actions would include repeated and rigorous invasive plant treatments (using mechanical and chemical control) to achieve sustained control of invasive species within the first five years of treatment, followed by monitoring and spot treatment. Once sustained control is achieved, begin a 25-year program of systematically removing small clusters of eucalyptus trees and planting oak seedlings. After establishing oaks, plant additional oak woodland understory.

- Prioritize the annual control of sparse pioneer invasive plants at Cowboy Rock (Zone 3). Following fire/fuel reduction, replant oak savannah/native grassland species. Monitor plantings for about five years, continue invasive control and install understory shrubs and flowering plants when oaks are established.

- Prioritize invasive (broom) removal in areas mapped as native perennial grasslands (Zones 1 and 2) (see above).

- Consider a program to remove/control English ivy, periwinkle, and pittosporum in and adjacent to the banks of Reed Creek (see above).

d. Road and Trail Maintenance

Routine road and trail management activities include the periodic clearing of overgrown vegetation (i.e., trail brushing or mowing to keep trails clear of vegetation), ongoing trail repairs (e.g., trail resurfacing, repair of ruts, resurfacing with chips or gravel/fill in wet spots, installation of water bars and trail surface stabilization, repair of bridges, stairs, and water crossings), and repair of gates, signs, trailheads, and other facilities to help ensure safe access for visitors traveling through the open space. Road and trail management also includes addressing visitor use issues such as trash pickup, dog waste removal, and domestic pet control.

In addition to ongoing road and trail maintenance, the LMP recommends the following road and trail management activities:

- Decommission redundant, small, spur, under-utilized and unsustainable trails in Zones 6 and 7 by no longer conducting active maintenance. As needed, actively decommission trails by placing brush over trail tread, installing restoration signage, and/or by regrading or resurfacing trails.

- Partner with GGNRA to maintain ingress/egress access for emergency vehicles on fire roads that link CSA 14 lands to GGNRA lands (Zones 6 and 7).

e. Visitor Outreach and Education

At present, the HVLT conducts informal visitor outreach and provides outreach materials (e.g., web site postings, newsletters, informational signs). HVLT also hosts volunteer work days and events at Stolte

[4] Prepared by the HVLT, the HVLT *Ten Year Plan* identifies a list of projects to be implemented each year over the ten year planning period.

Grove. To help promote more volunteer participation in land management actions, the LMP recommends the following activities:

- Establish/reestablish a Volunteer Program to assist HVLT with monitoring of invasive plants and sensitive species populations, trail maintenance, monitoring and remediation of non-conforming trail uses, and pet waste pickup.

- Collaborate with Parks Volunteer Coordinator and with GGNRA staff to increase worker capacity.

G. Environmental Setting

Site Location and Surrounding Land Uses

Lands adjacent to the study area consist of undeveloped properties, a national park, single and multi-family residences, a community center, and local businesses. Homestead Valley is located to the south and west of the City of Mill Valley. Panoramic Highway, branching off of California State Route 1 south of Homestead Valley, runs along the south side of the Homestead Hill ridge that defines the southern boundary of the valley. Homestead Valley is immediately adjacent to lands owned by the National Park Service (NPS), including the GGNRA and Muir Woods National Monument, as well as Mount Tamalpais State Park.

Background and Existing Setting

This section describes the background and biological resources of the project. The information provided below is summarized from the LMP.

a. Background

CSA 14, created by action of the Marin County Board of Supervisors on September 12, 1967, encompasses the unincorporated Homestead Valley community located southwest of Mill Valley. The LMP outlines land management actions for the public open space areas and parks within CSA 14. Marin County owns these lands and manages them through an agreement with the HVLT.

The preservation of these lands as open space came about through dedicated efforts by Homestead Valley residents and property owners who were concerned with preserving the natural beauty of Homestead Valley. The property was acquired following the passage of a $600,000 special assessment local bond issue in 1973. The county, in partnership with the Trust for Public Land, purchased about 80 acres of land in the area. At that time, other Homestead residents donated additional parcels of land. Following acquisition of the property, the community established the HVLT, in 1974, under contract with the CSA 14 and Marin County, to be the custodian of open space and park lands in Homestead Valley.

b. Biological Resources

Vegetation Communities and Habitats: Homestead Valley supports both intact, relatively undisturbed vegetation communities, as well as lands that have been modified by the spread or intentional planting of both native and non-native species. The plan study area encompasses the following vegetation communities: redwood forest, mixed oak/bay woodland, coast live oak woodland, central coast riparian scrub, northern coastal scrub, California annual grassland (with patches of native perennial grassland), non-native (eucalyptus) woodland, and ruderal and landscaped areas. Figure 2 identifies the vegetation communities within the study area.

Redwood Forest: Redwood forest is a sensitive vegetation community dominated by a single tree species, coast redwood (*Sequoia sempervirens*). Subdominant trees that can also be found in this vegetation community include Douglas fir (*Pseudotsuga menziesii*) and tanoak (*Lithocarpus densiflorus*). Stands growing at and near the valley bottom along Reed Creek include a dense understory of the non-native English ivy (*Hedera helix*), along with Himalayan blackberry (*Rubus armeniacus*), spiderwort (*Tradescantia fluminensis*), and periwinkle (*Vinca major*). Characteristic native species detected on site include sword fern (*Dryopteris arguta*), and wake-robin (*Trillium ovatum*). The lands within CSA 14 support several stands of redwood forest of mixed age structures and some areas with non-native understory. Within the study area, groves of redwood forest are found along Reed Creek in Stolte Grove (Zone 4), on the lower slopes of Zone 5, in an isolated canyon in Zone 6, and on the upper slopes of Zone 7.

Mixed Oak/Bay Woodland: Mixed oak/bay woodland is a common vegetation community consisting of a dense evergreen forest dominated mostly by California bay (*Umbellularia californica*) and coast live oak (*Quercus agrifolia*) as co-dominant tree species. In a few areas, stands are monotypic, with California bay comprising the only tree species present. In other areas, California bay and coast live oak occur with other trees such as madrone (*Arbutus menziesii*), and occasionally California buckeye (*Aesculus californica*). The shrub layer is well-defined to sparse, and includes California hazelnut (*Corylus cornuta* var. *californica*), poison oak (*Toxicodendron diversilobum*), thimbleberry (*Rubus parviflorus*), huckleberry (*Vaccinium ovatum*), and toyon (*Heteromeles arbutifolia*). The understory includes many native plants such as slim solomon (*Maianthemum stellatum*), wake-robin (*Trillium ovatum*), and fetid adder's tongue (*Scoliopus begeloviii*). Stands growing along the lower slopes merge with redwood forest and similarly support a dense understory of sword fern (*Polystichum munitum*). Within the study area, mature stands of mixed oak/bay woodlands are found below Cowboy Rock (Zone 3), and on lower slopes above Reed Creek (Zones 4, 5 and 6).

Coast Live Oak Woodland: Coast live oak woodland is a common vegetation community typically dominated by a single tree, coast live oak (*Quercus agrifolia*), a drought-resistant evergreen tree growing to 25 m (82 ft) tall. This vegetation community can also include other co-dominant and subdominant tree species including madrone *(Arbutus menziesii),* California buckeye *(Aesculus californica),* and California bay. The shrub layer may include toyon, California hazelnut, poison oak, ocean spray *(Holodiscus discolor)*, coffeeberry *(Frangula californica),* and snowberry *(Sympphoricarpos albus var. laevigatus).* Understory species include California honeysuckle (*Lonicera hispidula* var. *vacillans),* Douglas iris *(Iris douglasiana),* purple sanicle *(Sanicula crassicaulis),* sweet cicely *(Osmorrhiza berteroi),* and milkmaids *(Cardamine integrifolia;* formerly *californica),* among others. Commonly encountered invasive species include French broom *(Genista monspessulana),* Scotch broom *(Cytisus scoparius),* blackwood acacia *(Acacia melanoxylon),* wild plum *(Prunus cerasifera),* cotoneaster (*Cotoneaster* spp.) and broadleaved forget-me-not *(Myosotis latifolia).* The native tree species, Douglas fir *(Pseudotsuga menziesii)* is also present, invading this habitat from elsewhere on Mount Tamalpais. Within the study area, coast live oak woodland is present on the upper slopes of both sides of Homestead Valley. Specifically, examples can be found in Zones 1, 4, and 6.

Central Coast Riparian Scrub: Central coast riparian scrub is a sensitive plant community typically consisting of shrubby streamside, open to impenetrable willow thickets. Central coast riparian scrub is classified as a palustrine shrub-scrub wetland; impacts to this plant community may be regulated under federal, state, or local wetland laws and policies. Characteristic native species occurring on site include arroyo willow (*Salix lasiolepis*), California blackberry (*Rubus ursinus*), and poison oak, among others. At the upper end of Reed Creek, three invasive plants, Cape ivy (*Delairea odorata*), periwinkle *(Vinca major),* and Himalayan blackberry, are also commonly found in this plant community. Within the study area, a few, poorly developed stands of Central coast riparian scrub are present. These stands may be

found principally outside of the dense forest canopy above the headwaters of Reed Creek (Zone 3), and may be present in some seeps on side slopes (Zones 3, 6, and 7).

Northern (Franciscan) Coastal Scrub: Northern (Franciscan) coastal scrub is a common vegetation type consisting of a dense cover of low shrubs up to six feet high with a well-developed herbaceous or low woody understory. Dominant species may include native coyote brush, coffeeberry, chaparral oak (*Quercus wislizenii*), sticky monkeyflower (*Mimulus aurantiacus*), western bracken fern (*Pteridium aquilinum* var. *pubescens*), and cow parsnip (*Heracleum lanatum*). Invasive non-native species such as French broom and Scotch broom are also common in this plant community. Within the study area, northern coastal scrub occurs in rather patchy stands on north-facing slopes at the upper elevations of Zones 1 and 6.

California Annual Grassland and Native Perennial Grassland: California annual grasslands are typically dominated by a diverse mixture of nonnative and naturalized annual grasses and forbs, primarily of Mediterranean origin. Dominant annual grasses found in California annual grassland onsite include wild oats *(Avena fatua)*, brome grasses (*Bromus* spp.), wild barley (*Hordeum* spp.), quaking grass (*Briza* spp.), Italian ryegrass (*Lolium multiflorum*), and annual fescue (*Vulpia* spp.). Common non-native forbs include field bindweed (*Convovulus arvensis*), crane's-bill (*Geranium dissectum*), sheep sorrel (*Rumex acetosella*), bur-clover (*Medicago polymorpha*), and filaree (*Erodium* spp.). the California annual grasslands in Homestead Valley also support numerous remnants of native perennial bunchgrass grassland habitat, including purple needlegrass (*Stipa pulchra),* foothill needlegrass (*Stipa lepida*), western dichondra (*Dichondra donelliana),* soap plant (*Chlorogalum pomeridianum*), red fescue *(Festuca rubra*), blue wildrye (*Elymus glaucus*), wood rush (*Luzula comosa*), wood strawberry *(Fragaria vesca*), Fremont star lily (*Toxicoscordion (*formerly *Zigadenus) fremontiii)* and footsteps-of-spring (*Sanicula arctopoides*), among others. Many invasive plants are located within the California annual grasslands onsite, including Tasmanian blue gum, Monterey pine (*Pinus radiata*), Douglas fir, French broom, Scotch broom, blackwood acacia and green wattle (*Acacia* spp.), *Cotoneaster (Cotoneaster sp), Italian thistle (Carduus pycnocephalus), Harding grass (Phalaris aquatica),* and others.

In contrast, native perennial grassland is a sensitive vegetation community that is dominated by a mixture of native perennial grasses and forbs generally occurring with the more typical annual grassland species described above. In addition to the annual species described above, native perennial grasslands also support purple needlegrass, foothill needlegrass, red fescue, and blue wildrye, as well as native forbs and rushes such as dichondra, soap plant, wood rush, wood strawberry, Fremont star lily and footsteps-of-spring. Invasive plants are much less common in this plant community but include the same species as described above for California native annual grasslands.

Due to their small size, native perennial grasslands were mapped with areas identified as California annual grasslands. In general, native perennial grasslands are most common along ridges with thin soils in Zones 1 and 3. California annual grasslands are present in all zones but are most common on the upper slopes of Zones 1, 3, 5, 6, and 7.

Nonnative (Eucalyptus) Woodland: The non-native woodland in the plan area consists primarily of eucalyptus woodland, a non-native plant community consisting of trees of Australian origin. The most common and widely grown species is Tasmanian blue gum (*Eucalyptus globulus*), the species that occurs throughout the study area. Although these stands have substantially altered the habitat, remnants of the native habitats that previously occupied these locations are readily apparent, such as coast live oak woodland, northern coastal scrub and grasslands. Although infrequent, young plants of coast live oak, toyon, and coffeeberry, can be found in the understory, along with such native species as manroot (*Marah fabaceus*), wood strawberry, western dichondra, purple needlegrass, California honeysuckle, poison oak, and many others.

Other non-native woodlands encountered within the study area include extensive areas dominated by green wattle (*Acacia decurrens*), blackwood acacia, and cherry plum, along with California native trees that are not indigenous to Marin County such as Monterey cypress (*Hesperocyperus macrocarpa*) and Monterey pine.

Zone 2 is virtually dominated by eucalyptus, and substantial groves are present in Zones 1, 3, and 6. A single stand dominated by Monterey cypress is present in Zone 1. Scattered individuals and small stands of Monterey pine and cherry plum are present in Zones 1, 2, 3, 5, 6, and 7. Green wattle and/or blackwood acacia are present in Zones 1, 2, 3, 6, and 7.

Ruderal and Landscaped Areas: Ruderal habitat includes areas in which the native vegetation has been completely removed by grading, cultivation, or other surface disturbances. Left undeveloped, such areas typically become recolonized by invasive exotic species. Scattered native species might recolonize the site after disturbance has ceased. Ruderal sites may be dominated by herbaceous species, although scattered woody shrubs and trees may also begin to appear if left undisturbed long enough. Ruderal sites are characteristic of road sides, fallow agricultural fields, vacant lots, and large landslides. Landscaped areas may support any number of exotic herbs, shrubs, or trees.

Non-native and invasive plant species commonly encountered in ruderal and landscaped areas include pride-of-Madeira (*Echium candicans*), English ivy (*Hedera helix*), sweet fennel (*Foeniculum vulgare*), common forget-me-not (*Myosotis latifolia*), French broom, Scotch broom, cotoneaster (*Cotoneaster pannosus, C. franchetii),* Bermuda buttercup (*Oxalis pes-caprae*), velvet grass (*Holcus lanatus*), big quaking grass (*Briza maxima*), African cornflag (*Chasmanthe floribunda*), and spiderwort (*Tradescantia* sp.), among many others.

Within the study area, extensive areas of ruderal and landscaped habitats are present in all Zones (1, 2, 3, 4, 5, 6, and 7).

Reed Creek. Reed Creek is a perennial watercourse that is tributary to Arroyo Corte Madera Del Presidio. The flow was estimated at 1 gallon per minute or less. during the low flow period of summer. Its headwaters originate above Stolte Grove (Zone 4) and its watershed is largely urbanized. Portions of the watercourse flow through cement-lined bed and banks and flow over several cement drop structures that would prevent the upstream migration of fish.

The bed of Reed Creek at Stolte Grove varies from 3 to 8 feet wide with water flowing over a 1- to 3-foot wide portion of the bed. The substrate consists of sand, gravel, and cobbles. Pools, six to twelve inches deep, occur at the base of check dams. Cover in the pools consists of rocks and woody debris is absent. The check dams are three or more feet tall and the area behind them has filled with silt.

The banks are bare or covered with ivy. Chain fern (*Woodwardia fimbriata*) grows on the bed and banks of Reed Creek. The overstory consists of redwood trees that shade the creek.

Special-status Plant Species: For the purposes of this analysis, special status plants are defined to include state or federally listed species, and species on the California Native Plant Society (CNPS) Lists 1 and 2. Locally rare plants include plants on CNPS Lists 3 and 4, and other plants recognized by local experts such as the GGNRA as being uncommon in the local area (see Figure 3 for the locations of sensitive biological resources).

The LMP biologist prepared a list of targeted special status plant species by reviewing database printouts for the San Rafael, San Geronimo, Novato, San Quentin, San Francisco North, Petaluma Point, Bolinas, and Point Bonita 7.5-minute United States Geological Survey (USGS) quadrangles

maintained by the CNDDB, the CNPS, and the U.S. Fish and Wildlife Service. The biologist initially considered a total of 76 special status plant species as potentially occurring within the study area (Appendix A of Wood 2013). Based on biological surveys following published protocol, the study area does not support any populations of federally or state-listed plant species. One locally rare plant species (Oakland star-tulip; CNPS List 4.2) is abundant in Zone 6.

Oakland Star-Tulip: Oakland star-tulip (*Calochortus umbellatus)* is a bulb-forming perennial herb belonging to the lily family (*Liliaceae*). Oakland star-tulip occurs in chaparral, cismontane woodland, broadleafed upland forest, lower montane coniferous forest and valley and foothill grassland. In Marin County, Oakland star-tulip is known from at least 48 occurrences in the project vicinity (Consortium of California Herbaria).

Oakland star-tulip has no status under the federal Endangered Species Act (ESA) or state Endangered Species Act (CESA). However, it is a state listed special plant species (CDFG 2013a) and it is on the CNPS List 4.2, indicating that it is uncommon in California and fairly endangered locally. It has a global ranking of G3 and a state ranking of S3.2, indicating that it is vulnerable and threatened. Within the study area, 22 populations of Oakland star-tulip were identified in Zone 6. Population sizes range from six to over 200 individuals, with a total estimated number of at least 765 plants growing on site.

Special-Status Animal Species**:** Special status animal species include wildlife species that are listed as endangered, threatened, rare, or as candidates for listing under the ESA or CESA. Other wildlife species having special status include species of special concern and fully protected species, as listed by the California Department of Fish and Wildlife. Additional animal species receive protection under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA).

LMP biologists identified a total of 52 special status animal species in the eight USGS quadrangles surrounding the project site (CNDDB 2012, USFWS 2011). Of these, the presence of 25 can be completely ruled out based on a lack of suitable habitat or because the project site is outside of their geographic range. Homestead Valley lands provide only marginally suitable habitat for 16 of the remaining species, because of the area's high level of disturbance or its relative isolation from more likely occupied sites. Of the 11 special status wildlife species targeted during the 2013 field surveys, LMP biologists detected only one federally listed species, northern spotted owl, on these lands (see Figure 3). The northern spotted owl and other special status animal species that could occur in the study area are described below.

Northern Spotted Owl: The US Fish and Wildlife Service (USFWS) listed the northern spotted owl (*Strix occidentalis caurina*) as threatened (June 26, 1990), and the CDFW (formerly California Department of Fish and Game) listed it as a species of special concern. In Marin County, the northern spotted owl nesting season spans from March through September. In Marin County, the northern spotted owl may occupy habitats that differ from those typically used in the northern parts of its range, and may include, in addition to old-growth redwood forests, forests of second-growth coast redwood, Douglas-fir, and bishop pine; some occupied forests have hardwood components (www.nps.gov). The northern spotted owl is quite abundant in Marin County, despite the high level of human occupation and activities.

Northern spotted owls nest in protected areas near Homestead Valley, such as Muir Woods National Monument. During the reconnaissance survey for the LMP, a pair of northern spotted owls was observed; Point Blue Conservation Science (PBCS, formerly the Point Reyes Bird Observatory) has identified and monitored this pair of northern spotted owls. Since this species is philopatric (i.e., site faithful) this pair of owls will continue to use and nest in the Homestead Valley area. In addition, it is likely that portions of Homestead Valley provides foraging habitat within the range of the owls nesting

territory. Suitable but currently unoccupied redwood forest habitat is also present at Stolte Grove (Zone 4) and in a narrow canyon at the eastern edge of Zone 6.

Monarch Butterfly: The monarch butterfly *(Danaus plexippus)* is a special animal (CDFW (2011a). Monarch butterfly aggregating areas are the resource of concern because relatively few areas provide the conditions needed for monarch butterflies to successfully overwinter. Monarch butterflies migrate over great distances between breeding grounds to overwintering sites where they annually aggregate in particular forest configurations (Weiss, et al. 1991). In California, the monarch butterfly aggregates in winter roost sites from northern Mendocino County to the Baja Peninsula in Mexico. Over-wintering sites consist of wooded trees of mixed height and trunk diameter, as well as understory brush, generally within a mile of the coast. Trees such as Tasmanian blue gum*,* Monterey pine*,* and Monterey cypress are most often used for roosts, as well as other native and non-native species in large groves, often in canyons or drainages that provide a source of water as well as shelter from prevailing winter winds (Brower, et al. no date). Over-wintering aggregations can be observed from about October to mid-February. The presence of winter aggregations and the abundance of butterflies in a given aggregation can vary from year to year.

Large eucalyptus, Monterey pine, Monterey cypress, and other large conifers provide suitable overwintering habitat for the monarch butterfly within the study area. Known monarch overwintering sites in Marin County have been recorded at Muir Beach and Bolinas Terrace Site, and temporary sites are located nearby in Tennessee Valley, Marin Headlands, and Stinson Beach. The CDFW has not listed any overwintering sites in the CNDDB San Rafael quad and long-time residents have not observed overwintering of this species in the Homestead Valley area.

California Red-legged Frog: The California red-legged frog (*Rana draytonii*) is federally-listed as threatened and is a state Species of Special Concern. (CDFG 2011a). It occurs in intermittent and permanent streams and ponds that retain water at least into May although tadpoles generally metamorphose later in the year. Known breeding ponds occur in Tiburon and Muir Beach which are quite distant from Homestead Valley. Reed Creek is a perennial watercourse that provides marginal breeding habitat for the California red-legged frog. Urbanization, shading, narrow width, and shallow depth reduce the habitat value of Reed Creek for breeding by California red-legged frog. California red-legged frogs are not likely to occur in Homestead Valley because of the distance between known localities and the marginal characteristics of breeding habitat.

Foothill Yellow-legged Frog: The foothill yellow-legged frog (*Rana boylii*) is a California Species of Special Concern (CDFG 2011a). The foothill yellow-legged frog prefers small to moderate sized streams with at least some cobble-sized substrate (Hayes and Jennings 1988). Breeding occurs from mid-March to May, depending on rain patterns and water temperatures, with tadpoles metamorphosing in June or July, or as late as September (Jennings 1988). The foothill yellow-legged frog has been recorded from Muir Woods National Monument (over 30 records) and also at an outfall at Richardson's Bay. Habitat within the study area (e.g., Reed Creek and associated tributaries) is considered only marginally suitable for the species because of urbanization, shading, and relatively narrow width of Reed Creek. Additionally, the upstream habitat may be cut off from downstream habitat due to a series of drop structures with vertical cement walls that would limit (but not necessarily prevent) the movement of frogs up and down Reed Creek.

Western Pond Turtle: The western pond turtle (*Emys marmorata*), a California Species of Special Concern (CDFG 2011a), is the only fresh-water turtle native to greater California. It occurs along much of the west coast from Puget Sound in Washington, south to the Baja Peninsula in Mexico (Storer 1930). Overall, the Western pond turtle is a habitat generalist and has been observed in slow-moving rivers and streams (e.g. in oxbows), lakes, reservoirs, permanent and ephemeral wetlands, stock

ponds, and sewage treatment plants. The species prefers aquatic habitat with refugia such as undercut banks and submerged vegetation (Holland 1994), and requires emergent basking sites such as mud banks, rocks, logs, and root wads to thermoregulate their body temperature (Holland 1994, Bash 1999).

The Western pond turtle is widespread in areas of suitable habitat (streams with perennially available water, ponds and other freshwater ecosystems); Homestead Valley provides marginally suitable stream habitat for this species in Reed Creek. Habitat is marginal because of urbanization, shading, narrow width, and the shallow depth of Reed Creek. The only record listed in the CNDDB San Rafael quad was an occurrence from Phoenix Lake, approximately five kilometers (three miles) to the north of the study area.

Heron and Egret Rookeries: Great blue heron (*Ardea herodias*), snowy egret (*Egretta thula)*, great egret (*Ardea alba)*, and black crowned night heron (*Nycticorax nycticorax)* could potentially use some of the trees for roosting, particularly near open water. During surveys of the study area for the LMP, no rookeries were detected. Long-time residents report that herons and egrets have not been seen along Reed Creek. However, there are rookeries at the Audubon Canyon Ranch approximately ten kilometers (six miles) to the west and the shores of nearby Richardson Bay five kilometers (three miles) to the southeast.

White-Tailed Kite: The CDFW lists the white-tailed kite (*Elanus leucurus)* as a fully protected bird species[5]; it is also protected under the MBTA and CFGC[6] and is considered a migratory nongame bird of management concern by the USFWS (CDFG 2011a, b). Generally, white-tailed kites use low elevation grasslands, agricultural, wetland, oak-woodland, or savannah habitats. This species nests from February through August, with a peak in breeding occurring from late March through July. White-tailed kites are likely to forage and occasionally nest in the area. Although there are no occurrences of nesting kites in the San Rafael Quad of the CNDDB, long-time residents report that white-tailed kites have nested in Homestead Valley within the last few years.

Bat Species: Project biologists determined that four special status bat species have a potential to occur within Homestead Valley. The CDFW has designated the pallid bat (*Antrozoas pallida*), Townsend's big-eared bat (*Corynorhinus townsendii*), western red bat (*Lasiurus blossevillii*), and hoary bat (*Lasiurus cinereus*) as Special Animals (2011a); the pallid bat, Townsend's big-eared bat and the western red bat are State Mammalian Species of Special Concern (CDFW 2011a). These bats have the potential to occur in the area, because it provides substantial opportunities for suitable roosting and foraging habitat. These bats will roost in large trees, trees with hollow limbs, cavities, snags, trees with peeling bark, and, in some cases, dense foliage. In addition, outbuildings and dwellings within the study area provide a variety of roosting opportunities.

Migratory Birds: The MBTA and the CFGC[7] also protect migratory and most non-migratory passerines and raptors that are not listed under the ESA or CESA. Numerous passerine, non-passerine, and raptorial bird species can potentially nest within the study area. The following migratory species (and many that are not named here or in the rest of the report) have the potential to nest in the area including barn, tree, and violet green swallows (*Hirundo rustica, Tachycineata bicolor*, and *T. thalassina),* Allen's hummingbird *(Selasphorus sasin),* orange-crowned warbler *(Oreothlypsis celata),* Pacific slope flycatcher *(Empidonax difficilis)*, Hutton's and warbling vireos *(Vireo huttoni and V. gilvus)*, Bullock's oriole (*Icterus bullockii),* and western wood-peewee (*Contopus sordidulus)*. As mentioned

[5] Division E, Title I, §143 of the Consolidated Appropriations Act, 2005, PL 108–447
[6] CFGC §3511
[7] CFGC §3503.5

previously, numerous migratory raptors such as white-tailed kite, red-tailed hawk, red-shouldered hawk, and Cooper's hawk (*Accipiter cooperii)* may also nest in the study area.

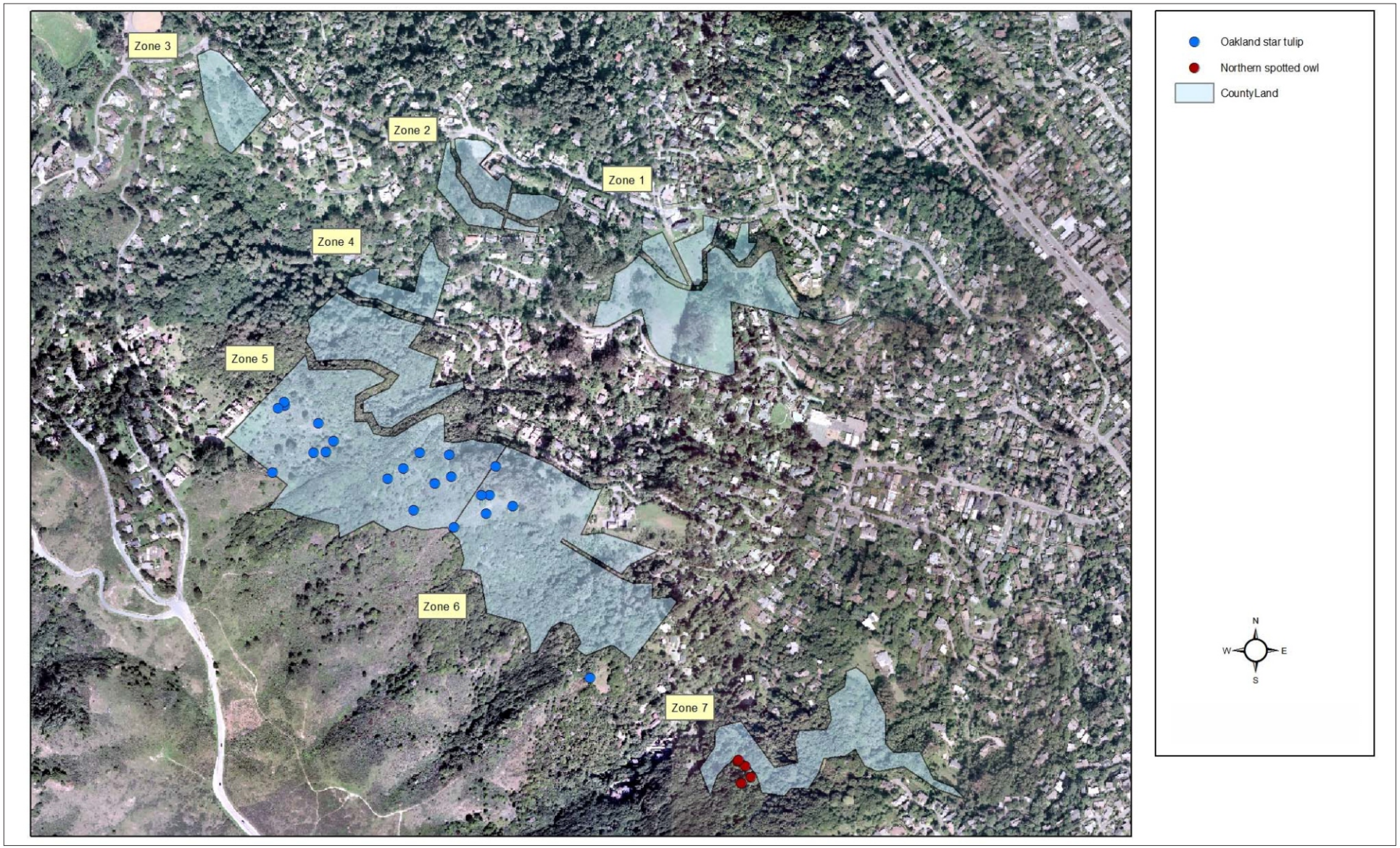
H. Regulatory Setting and Permit Requirements

If any of the projects identified in the LMP would result in the discharge of fill material into waters of the U.S. or state, or result in impacts to bed or bank of streams (including riparian habitat), the projects would require permits from the US Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW.

I. Documents Incorporated by Reference

The following technical reports help define and address potential impacts from implementation of the proposed LMP. These documents are incorporated by reference and are available for public inspection Monday through Friday from 8:30 p.m. until 4:30 p.m. at Marin County Parks located at 3501 Civic Center Drive, Room #260, San Rafael, California 94903.

May and Associates. 2013. *Land Management Plan for the lands within Community Service Area 14 (aka) Homestead Valley, Marin County, CA. .* Prepared for Marin County Parks.



LSA

FIGURE 3

N

0 125 250

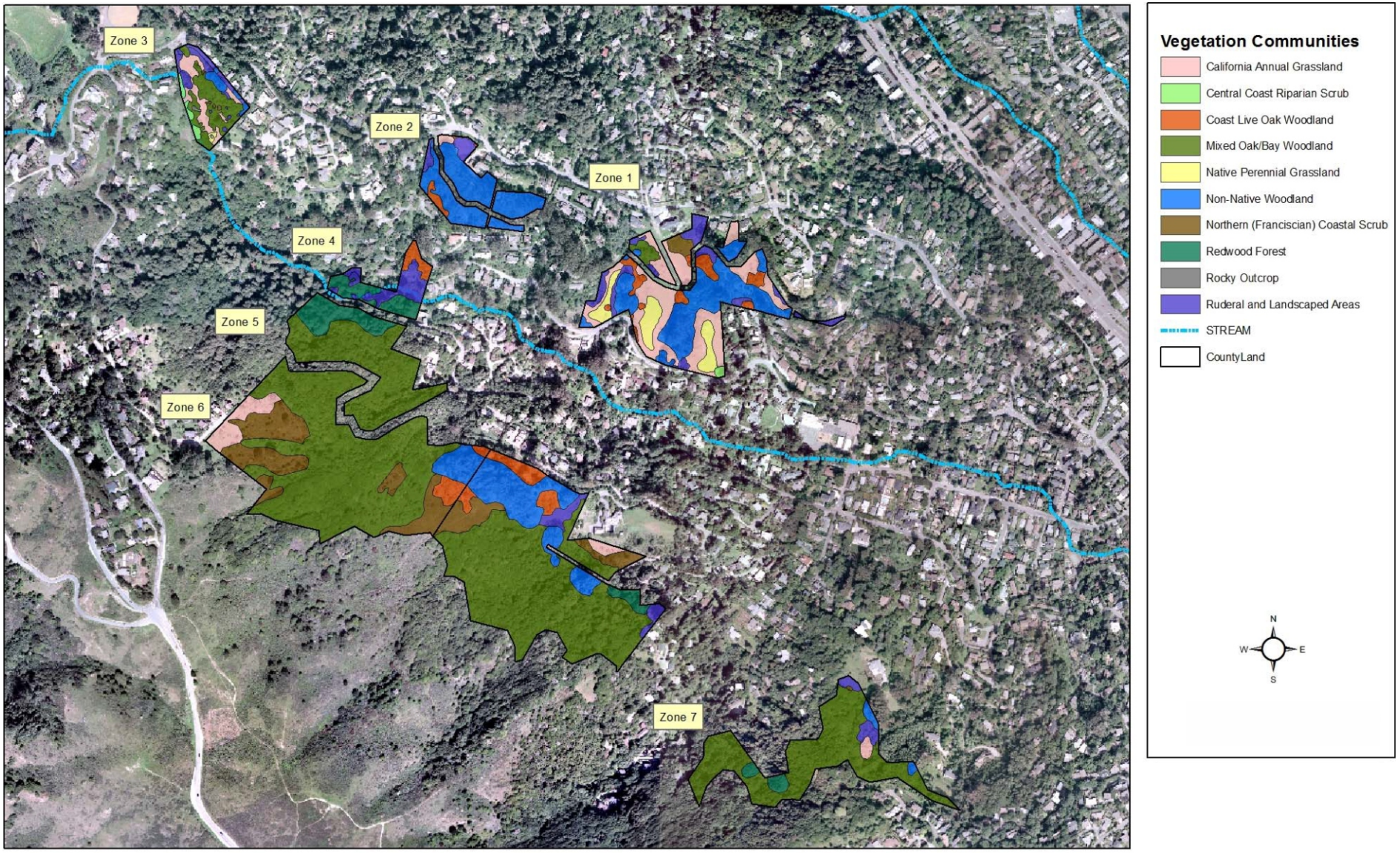
METERS

SOURCE: May and Associates, Inc.

Homestead Valley Land Management Plan
Marin County, California

Sensitive Biological Resources

P:\COM1301\g\Figure 3_Sensitive Biological Resources.cdr (10/23/2013)



LSA

FIGURE 2

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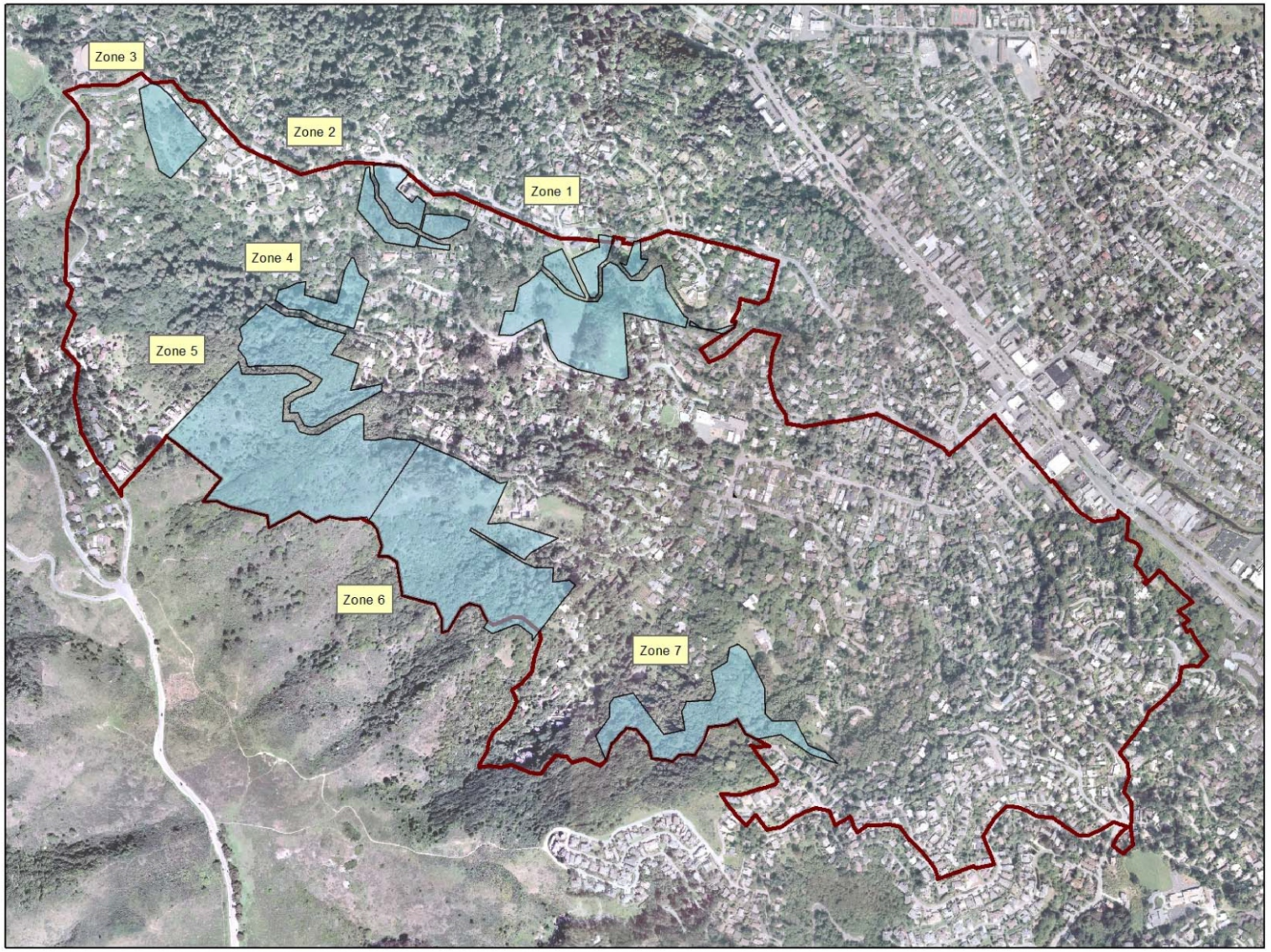
METERS

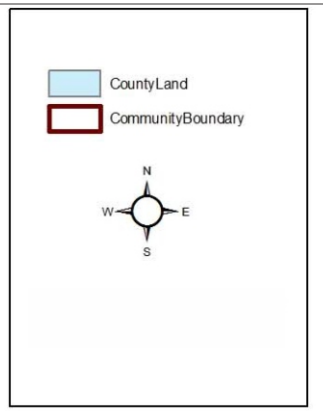
SOURCE: May and Associates, Inc.

Homestead Valley Land Management Plan
Marin County, California

Vegetation Communities

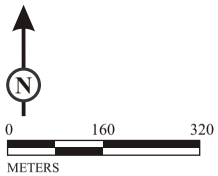
P:\COM1301\g\Figure 2_Vegetation Communities.cdr (10/23/2013)





Project Location Overview

LSA



SOURCE: May and Associates, Inc.

FIGURE 1

Homestead Valley Land Management Plan
Marin County, California

Project Area

P:\COM1301\g\Figure 1_Project Area.cdr (10/23/2013)

III. CIRCULATION AND REVIEW

This Initial Study and the Notice of Intent to Adopt a Negative Declaration is being circulated to all agencies that have jurisdiction over the subject property or natural resources affected by the project and to community groups and interested parties to attest to the completeness and adequacy of the information contained in the Initial Study as it relates to the concerns that are germane to the agency's jurisdictional authority or to the interested parties' issues. The State Clearinghouse review period is 30 days as required by CEQA.

K. Marin County Agencies:

Marin County Parks
Marin County Flood Control and Water Conservation District
Marin County Department of Public Works (DPW), Land Use & Water Resources Division
Marin County Community Development Agency
Marin County Fire Department

L. Responsible Agencies:

Marin Municipal Water District

M. Trustee Agencies (via State Clearinghouse):

California Department of Fish and Wildlife
United States Fish and Wildlife Service
NOAA National Marine Fisheries Service
San Francisco Bay Regional Water Quality Control Board

IV. EVALUATION OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Pursuant to Section 15063 of the State CEQA Guidelines, and the County EIR Guidelines, Marin County will prepare an Initial Study for all projects not categorically exempt from the requirements of CEQA. The Initial Study evaluation is a preliminary analysis of a project, which provides the County with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration. The points enumerated below describe the primary procedural steps undertaken by the County in completing an Initial Study checklist evaluation and, in particular, the manner in which significant environmental effects of the project are made and recorded.

A. The determination of significant environmental effect is to be based on substantial evidence contained in the administrative record and the County's environmental database consisting of factual information regarding environmental resources and environmental goals and policies relevant to Marin County. As a procedural device for reducing the size of the Initial Study document, relevant information sources cited and discussed in topical sections of the checklist evaluation are incorporated by reference into the checklist (e.g. general plans, zoning ordinances). Each of these information sources has been assigned a number which is shown in parenthesis following each topical question and which corresponds to a number on the data base source list provided herein as Appendix C. Other sources used or individuals contacted may also be cited in the discussion of topical issues where appropriate.

B. In general, a Negative Declaration shall be prepared for a project subject to CEQA when either the Initial Study demonstrates that there is no substantial evidence that the project may have one or more significant effects on the environment. A Negative Declaration shall also be prepared if the

Initial Study identifies potentially significant effects, but revisions to the project made by or agreed to by the applicant prior to release of the Negative Declaration for public review would avoid or reduce such effects to a level of less than significance, and there is no substantial evidence before the Lead County Department that the project as revised will have a significant effect on the environment. A signature block is provided in Section VII of this Initial Study to verify that the project sponsor has agreed to incorporate mitigation measures into the project in conformance with this requirement.

C. All answers to the topical questions must take into account the whole of the action involved, including off-site as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Significant unavoidable cumulative impacts shall be identified in Section VI of this Initial Study (Mandatory Findings of Significance).

D. A brief explanation shall be given for all answers except "Not Applicable" answers that are adequately supported by the information sources the Lead County Department cites in the parenthesis following each question. A "Not Applicable" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "Not Applicable" answer shall be discussed where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

E. "Less Than Significant Impact" is appropriate if an effect is found to be less than significant based on the project as proposed and without the incorporation of mitigation measures recommended in the Initial Study.

F. "Potentially Significant Unless Mitigated" applies where the incorporation of recommended mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead County Department must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section V, may be cross-referenced).

G. "Significant Impact" is appropriate if an effect is significant or potentially significant, or if the Lead County Department lacks information to make a finding that the effect is less than significant. If there are one or more effects, which have been determined to be significant and unavoidable, an EIR shall be required for the project.

H. The answers in this checklist have also considered the current California Environmental Quality Act Guidelines and the Initial Study Checklist contained in those Guidelines.

V. ISSUES (and Supporting Information Sources):

1. LAND USE AND PLANNING

Would the proposal:

a) Conflict with applicable Countywide Plan designation or zoning standards?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable

(source #(s): 1, 2, 4)	☐	☐	☒	☐

The project site is owned and maintained by the County of Marin, and is subject to the *Marin Countywide Plan* (adopted November 2007) and Title 22 (Development Code) of the Marin County Code (MCC).

Consistency with the Marin Countywide Plan

For the purposes of land use considerations, the *Marin Countywide Plan* (MCP) divides the County into six planning areas. The project is located in the City-Centered Corridor, which is primarily designated for urban development and for protection of environmental resources. As described below in Section V.1.b, the project is consistent with the environmental policies established for the corridor. The City-Centered Corridor is divided into six planning areas generally based on watersheds. The project is within Planning Area 6 – Richardson Bay, and the site is primarily designated as *Open Space* on Map 6.1.2: Tamalpais Area Land Use Policy Map, Homestead Valley, in the MCP. This land use category is intended for lands in public ownership for open space purposes, such as recreation, watershed, and habitat protection and management. Lands designated *Open Space* are subject to a Floor Area Ratio (FAR)[8] of 0.01 to 0.09.

A small portion of the study area is designated *Planned Residential* in the MCP. This land use category is intended for single-family residential development in areas where public services are limited and on properties where physical hazards and/or natural resources may restrict development. Planned residential density ranges from one unit per one to ten acres.

Consistent: Implementation of the proposed land management actions outlined in the LMP would not involve changes to the existing land use. The project does not include the construction of any features that would conflict with the existing *Open Space* land use designation. Although a portion of the study area is designated as *Planned Residential,* the county acquired these properties and incorporated into its Homestead Valley open space lands. The land was acquired for open space purposes and would be managed, under the LMP, consistent with other open space lands owned by the county in Homestead Valley. The proposed project is consistent with MCP land use designations and would not require any amendments.

Consistency with Title 22 of the Marin County Code – Zoning Standards

According to Article II of the Development Code (Zoning Districts and Allowable Land Uses), the majority of the project area is zoned OA (Open Area)/Combining District. The OA zoning district is intended for areas of the County committed to open space uses, as well as environmental preservation. The OA zoning district is consistent with the open space, and agriculture and conservation land use categories of the MCP.

A small portion of the study area is zoned RMP-1 (Residential, Multiple Planned). The RMP zoning district is intended for a full range of residential development types within the unincorporated urban areas of the County, including single-family, two-family dwellings, multi-family residential development, and limited commercial uses in suburban settings, along with similar and related compatible uses,

[8] FAR refers to the relationship between the total floor area in a building or buildings, and the total surface area of the parcel on which the building or buildings are located. A two-story building with 43,560 square feet of floor area on a one-acre property (an acre having 43,560 square feet) would cover one-half of the parcel at an FAR of 1.0.

where site or neighborhood characteristics require particular attention to design detail provided through a Master Plan process.

Consistent: The project is consistent with the standards for the OA zoning district because it restores natural resources of the site, and does not include any building construction. A small portion of the project site is zoned for RMP-1. As described above, the county acquired this property for open space purposes. The management actions proposed in the LMP are not incompatible with the RMP-1 zoning district. Therefore, the proposed project does not conflict with the Marin County Code zoning standards.

b) Conflict with applicable environmental plans or policies adopted by Marin County?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 2, 4)	☐	☐	☒	☐

Environmental Policies in the Marin Countywide Plan

The MCP contains policies adopted for the purpose of protecting environmental quality and natural resources. The project's consistency with these policies is discussed below.[9]

It should be noted that policy inconsistencies may not necessarily indicate significant environmental effects. Section 15358(b) of the CEQA Guidelines states that "effects analyzed under CEQA must be related to a physical change in the environment." Therefore, only those policy inconsistencies that would lead to a significant effect on the physical environment are considered significant impacts pursuant to CEQA. Where potentially significant environmental impacts are raised in the discussion below, they have been mitigated to a less than significant impact and therefore, project activities are determined to be consistent with the relevant policies cited. Mitigation measures are addressed further in the topical impact sections.

Biological Resources Goals and Policies

GOAL BIO-1 ***Enhanced Native Habitat and Biodiversity.*** *Effectively manage and enhance native habitat, maintain viable native plant and animal populations, and provide for improved biodiversity throughout the County.*

BIO-1.1 ***Protect Wetlands, Habitat for Special-Status Species, Sensitive Natural Communities, and Important Wildlife Nursery Areas and Movement Corridors.*** *Protect sensitive biological resources, wetlands, migratory species of the Pacific flyway, and wildlife movement corridors through careful environmental review of proposed development applications, including consideration of cumulative impacts, participation in comprehensive habitat management programs with other local and resource agencies, and continued acquisition and management of open space lands that provide for permanent protection of important natural habitats.*

[9] The determinations of policy consistency as discussed in this initial study section represent county staff interpretation of policies. However, this initial study does not determine policy consistency. The consistency analysis is presented to focus attention on policy issues and assist decision-makers in their formal determinations of the project's consistency. It is the responsibility of the Board of Supervisors to make the definitive decisions about policy consistency. The decision-makers retain the sole authority to determine whether and how relevant policies apply to a specific project and whether the project is, or is not, consistent with county policies.

BIO-1.5 ***Promote Use of Native Plant Species.*** *Encourage use of a variety of native or compatible nonnative, non-invasive plant species indigenous to the site vicinity as part of project landscaping to improve wildlife habitat values.*

BIO-1.6 ***Remove Invasive Exotic Plants.*** *Require the removal of invasive exotic species, to the extent feasible, when considering applicable measures in discretionary permit approvals for development projects unrelated to agriculture, and include monitoring to prevent re-establishment in managed areas.*

GOAL BIO-2 ***Protection of Sensitive Biological Resources.*** *Require identification of sensitive biological resources and commitment to adequate protection and mitigation, and monitor development trends and resource preservation efforts.*

BIO-2.2 ***Limit Development Impacts.*** *Restrict or modify proposed development in areas that contain essential habitat for special-status species, sensitive natural communities, wetlands, baylands and coastal habitat, and riparian habitats, as necessary to ensure the continued health and survival of these species and sensitive areas. Development projects should preferably be modified to avoid impacts on sensitive resources, or to adequately mitigate impacts by providing on-site or (as a lowest priority) off-site replacement at a higher ratio.*

BIO-2.3 ***Preserve Ecotones.*** *Condition or modify development permits to ensure that ecotones, or natural transitions between habitat types, are preserved and enhanced because of their importance to wildlife. Ecotones of particular concern include those along the margins of riparian corridors, baylands and marshlands, vernal pools, and woodlands and forests where they transition to grasslands and other habitat types.*

BIO-2.4 ***Protect Wildlife Nursery Areas and Movement Corridors.*** *Ensure that important corridors for wildlife movement and dispersal are protected as a condition of discretionary permits, including consideration of cumulative impacts. Features of particular importance to wildlife for movement may include riparian corridors, shorelines of the coast and bay, and ridgelines. Linkages and corridors shall be provided that connect sensitive habitat areas such as woodlands, forests, wetlands, and essential habitat for special-status species, including an assessment of cumulative impacts.*

BIO-2.5 ***Restrict Disturbance in Sensitive Habitat During Nesting Season.*** *Limit construction and other sources of potential disturbance in sensitive riparian corridors, wetlands, and baylands to protect bird nesting activities. Disturbance should generally be set back from sensitive habitat during the nesting season from March 1 through August 1 to protect bird nesting, rearing, and fledging activities. Preconstruction surveys should be conducted by a qualified professional where development is proposed in sensitive habitat areas during the nesting season, and appropriate restrictions should be defined to protect nests in active use and ensure that any young have fledged before construction proceeds.*

BIO-2.6 ***Identify Opportunities for Safe Wildlife Movement.*** *Ensure that existing stream channels and riparian corridors continue to provide for wildlife movement at roadway crossings, preferably through the use of bridges, or through over-sized culverts, while maintaining or restoring a natural channel bottom. Consider the need for wildlife movement in designing and expanding major roadways and other barriers in the county. Of particular concern is the possible widening of Highway 101 north of Novato to the county line, where maintenance of movement opportunities for terrestrial wildlife between*

the undeveloped habitat on Mount Burdell and the marshlands along the Petaluma River is critical.

GOAL BIO-3 ***Wetland Conservation.*** *Require all feasible measures to avoid and minimize potential adverse impacts on existing wetlands and to encourage programs for restoration and enhancement of degraded wetlands.*

BIO-3.1 ***Protect Wetlands.*** *Require development to avoid wetland areas so that the existing wetlands and upland buffers are preserved and opportunities for enhancement are retained (areas within setbacks may contain significant resource values similar to those within wetlands and also provide a transitional protection zone). Establish a Wetland Conservation Area (WCA) for jurisdictional wetlands to be retained, which includes the protected wetland and associated buffer area. Development shall be set back a minimum distance to protect the wetland and provide an upland buffer. Larger setback standards may apply to wetlands supporting special-status species or associated with riparian systems and baylands under tidal influence, given the importance of protecting the larger ecosystems for these habitat types as called for under Stream Conservation and Baylands Conservation policies defined in Policy BIO-4.1 and BIO-5.1, respectively. Regardless of parcel size, a site assessment is required either where incursion into a WCA is proposed or where full compliance with all WCA criteria would not be met. Employ the following criteria when evaluating development projects that may impact wetland areas:*

City-Centered Corridor:

- *For parcels more than 2 acres in size, a minimum 100-foot development setback from wetlands is required.*
- *For parcels between 2 and 0.5 acres in size, a minimum 50-foot development setback from wetlands is required.*
- *For parcels less than 0.5 acres in size, a minimum 20-foot development setback from wetlands is required. The developed portion(s) of parcels (less than 0.5 acres in size) located behind an existing authorized flood control levee or dike are not subject to a development setback.*
- *Regardless of parcel size, an additional buffer may be required based on the results of a site assessment, if such an assessment is determined to be necessary. Site assessments will be required and conducted pursuant to Program BIO-3.c, Require Site Assessment.*

Consistency with Biological Resources Goals and Policies: CSA 14 supports a variety of wildlife and plant species, including the northern spotted owl (refer to Section II.G for a description of habitats on and adjacent to the project site). The proposed project includes vegetation management practices intended to enhance native habitat, reduce fire fuel loads, protect special status species and control invasive exotics. It also includes BMPs to reduce impacts associated with management activities on special status species.

As discussed in Section V.7, *Biological Resources*, this Initial Study evaluates the potential for the LMP to affect special-status species, particularly Oakland star tulip as well as bat species, native grasslands, and watercourses. Mitigation measures are included to ensure that no significant impacts to biological resources would occur with implementation of the project. Therefore, the proposed project would be consistent with Goals BIO-1, BIO-2, and BIO-3 and Policies BIO-1.1, BIO-1.5, BIO-6, BIO-2.2, BIO-2.3, BIO-2.4, BIO-2.5, BIO-2.6, and BIO-3.1.

c. Water Resources Goals and Policies

GOAL WR-1 ***Healthy Watersheds.*** *Achieve and maintain proper ecological functioning of watersheds, including sediment transport, groundwater recharge and filtration, biological processes, and natural flood mitigation, while ensuring high-quality water.*

WR-1.1 ***Protect Watersheds and Aquifer Recharge.*** *Give high priority to the protection of watersheds, aquifer-recharge areas, and natural drainage systems in any consideration of land use.*

WR-1.2 ***Restore and Enhance Watersheds.*** *Support watershed restoration efforts, coordinate County watershed activities with efforts by other groups, and simplify permit acquisition for watershed restoration and enhancement projects.*

WR-1.3 ***Improve Infiltration.*** *Enhance water infiltration throughout watersheds to decrease accelerated runoff rates and enhance groundwater recharge. Whenever possible, maintain or increase a site's predevelopment infiltration to reduce downstream erosion and flooding.*

WR-1.4 ***Protect Upland Vegetation****. Limit development and grazing on steep slopes and ridgelines in order to protect downslope areas from erosion and to ensure that runoff is dispersed adequately to allow for effective infiltration.*

WR-2.2 ***Reduce Pathogen, Sediment, and Nutrient Levels.*** *Support programs to maintain pathogen and nutrient levels at or below target levels set by the Regional Water Quality Control Board, including the efforts of ranchers, dairies, agencies, and community groups to address pathogens, sediment, and nutrient management in urban and rural watersheds.*

WR-2.3 ***Avoid Erosion and Sedimentation****. Minimize soil erosion and discharge of sediments into surface runoff, drainage systems, and water bodies. Continue to require grading plans that address avoidance of soil erosion and on-site sediment retention. Require developments to include on-site facilities for the retention of sediments, and, if necessary, require continued monitoring and maintenance of these facilities upon project completion.*

Consistency with Water Resources Goals and Policies: The LMP includes BMPs to limit soil disturbance and protect streambanks and water quality during vegetation management activities. In addition, the county's Integrated Pest Management Plan (IPM) ordinance (Ordinance No. 3521) specifies that the county must "take all reasonable measures to ensure that pest control activities do not threaten environmental, wildlife, and human health." Compliance with these BMPs, the IPM ordinance and other applicable permits and standards (e.g., accepted herbicide application methods) would ensure that potential impacts to water quality related to erosion and herbicide application would be less than significant. Therefore, implementation of the proposed LMP would be consistent with the water resources goals and policies identified above.

d. Environmental Hazard Goals and Policies

GOAL EH-2 ***Safety from Seismic and Geologic Hazards.*** *Protect people and property from risks associated with seismic activity and geologic conditions.*

EH-2.1 ***Avoid Hazard Areas.*** *Require development to avoid or minimize potential hazards from earthquakes and unstable ground conditions.*

GOAL EH-3 ***Safety from Flooding and Inundation.*** *Protect people and property from risks associated with flooding and inundation. (Also see the Public Facilities and Water Resources sections.)*

EH-3.3 ***Monitor Environmental Change.*** *Consider cumulative impacts to hydrological conditions, including alterations in drainage patterns and the potential for a rise in sea level, when processing development applications in watersheds with flooding or inundation potential.*

Consistency with Environmental Hazard Goals and Policies: The types of activities proposed by the LMP, including vegetation removal and activities supporting the removal (e.g., grading) could affect slope stability in some locations. However, the LMP includes best management practices (BMPs) that would partially reduce the potential to cause erosion and instability. As discussed in Section V.3, *Geology and Soils*, these policies are not adequate to avoid significant effects on geologic resources; therefore, this initial study identifies mitigation measures that will reduce these potential impacts to a level that is less than significant. The project would be consistent with the environmental hazard goals and policies identified above.

e. Atmosphere and Climate Goals and Policies

GOAL AIR-1.3 Require Mitigation of Air Quality Impacts. *Require projects that generate potentially significant levels of air pollutants, such as quarry, landfill operations, or large construction projects, to incorporate best available air quality mitigation in the project design.*

Consistency with Atmosphere and Climate Goals and Policies: As discussed in Section V.5 Air Quality, the proposed project would not result in potentially significant impacts on air quality relating to dust impacts during the county's implementation of proposed management actions, including vegetation removal, pile burning, and road and trail maintenance. Compliance with federal, State, and local regulations and implementation of the county's standard measures to control dust would reduce air quality impacts to a less than significant and ensure compliance with the identified policy. Therefore, implementation of the LMP would be consistent with the atmosphere and climate policy identified above.

f. Open Space Goals and Policies

GOAL OS-1 ***Sustainably Managed Open Space.*** *Manage open space in a sustainable manner for environmental health and the long-term protection of resources.*

OS-2.1 ***Support Countywide Open Space Planning.*** *Encourage Marin's public land management agencies to review the existing public open space system and prepare proactive, long-range plans to guide future land acquisition and preservation efforts consistent with their respective missions, and to create an interconnected system of public open space.*

OS-2.4 ***Support Open Space Efforts Along Streams.*** *Support efforts to restore, enhance, and maintain natural vegetation and other habitat values along streams in the Baylands and City-Centered corridors. Maintain strict controls and high environmental standards in these zones. Targeted streams and creeks in the Baylands and City- Centered corridors include the following:*

- *Corte Madera Creek. Although much of this creek has already been lined with concrete, a landscaped bicycle path now extends from the Larkspur Ferry Terminal through the lower Ross Valley. The California clapper rail inhabits marshes along this creek.*

Consistency with Open Space Goals and Policies: The proposed LMP outlines best management practices for managing the open space lands in the Homestead Valley, including removal of exotic vegetation; reduction of fire fuels; restoration of native habitats; and maintenance of roads and trails. Therefore, implementation of the LMP would be consistent with the County's open space goals and policies.

g. Trails Goals and Policies

GOAL TRL-1 ***Trail Network Preservation and Expansion****. Preserve existing trail routes designated for public use on the Marin Countywide Trails Plan maps, and expand the public trail network for all user groups, where appropriate. Facilitate connections that can be used for safe routes to school and work.*

TRL-1.1 ***Protect the Existing Countywide Trail System.*** *Maintain the existing countywide trail system and protect the public's right to access it.*

TRL-2.1 ***Preserve the Environment.*** *In locating and designing trails, protect sensitive habitat and natural resources by avoiding those areas.*

TRL-2.5 ***Provide Access for Persons with Disabilities.*** *Design and develop trails and trail programs to enhance accessibility by persons with disabilities.*

TRL-2.6 ***Provide Multiple Access Points.*** *Design trails with multiple access points to maximize accessibility and minimize concentrating access.*

TRL-2.8 ***Provide Trail Information.*** *Strive to provide information to trail users that facilitates visitor orientation, nature interpretation, code compliance, and trail etiquette. Develop a methodology for signing trails to assist user and emergency personnel.*

Consistency with Trails Goals and Policies: The LMP includes trail maintenance activities to assess and improve the condition of existing trails within the plan area. Although some small spur and underutilized trails would be decommissioned, heavily used trails would be retained, repaired, and/or upgraded to meet basic design standards. In addition, trails with connections to adjacent GGNRA lands would be preserved. Implementation of the LMP, therefore, would be consistent with these trails goals and policies.

h. Community Design Goals and Policies

GOAL DES-3 ***New Development in Built Areas.*** *New construction should occur in a compact form in developed locations whenever feasible.*

DES-3.2 ***Promote Green Spaces.*** *Encourage the creation of high-quality community plazas, squares, greens, commons, community and neighborhood parks, and rooftop gardens.*

GOAL DES-4 ***Protection of Scenic Resources.*** *Minimize visual impacts of development and preserve vistas of important natural features.*

DES-4.1 ***Preserve Visual Quality.*** *Protect scenic quality and views of the natural environment—including ridgelines and upland greenbelts, hillsides, water, and trees — from adverse impacts related to development.*

GOAL DES-5 ***Attractive and Functional Streets and Parking Areas.*** *Design automobile use areas to fit the character of the community, and comfortably accommodate travel by pedestrians and bicyclists, while still meeting health, safety, and emergency access needs.*

DES-5.1 ***Achieve Streetscape Compatibility.*** *Ensure that roadways, parking areas, and pedestrian and bike movement are functionally and aesthetically appropriate to the areas they serve.*

Consistency with Community Design Goals and Policies: The proposed project entails implementation of land management actions within the open space areas in Homestead Valley, including exotic vegetation removal; fire fuel reduction; habitat restoration; and road and trail maintenance. Although some vegetation would be removed, habitat restoration, road and trail improvements, and removal of invasive species could improve visual quality on the site. Views to and from the plan area would not be adversely affected by implementation of the LMP. Therefore, implementation of the proposed LMP would be consistent with the community design goals and policies described above.

i. Transportation Goals and Policies

GOAL TR-2 ***Increased Bicycle and Pedestrian Access.*** *Expand bicycle and pedestrian facilities and access in and between neighborhoods, employment centers, shopping areas, schools, and recreational sites.*

TR-2.1 ***Improve the Bicycle and Pedestrian Network.*** *Promote adequate bicycle and pedestrian links, to the extent feasible, throughout the county, including streetscape improvements and standards that are safe and pedestrian and bicycle friendly.*

TR-2.2 ***Provide New Bicycle and Pedestrian Facilities.*** *Where appropriate, require new development to provide trails or roadways and paths for use by bicycles and/or on- street bicycle and pedestrian facilities. In-lieu fees may be accepted if warranted in certain cases.*

Consistency with Transportation Goals and Policies: The LMP includes trail maintenance activities to assess and improve the condition of existing trails within the plan area. Although some small spur and underutilized trails would be decommissioned, heavily used trails would be retained, repaired, and/or upgraded to meet basic design standards. In addition, trails with connections to adjacent GGNRA lands would be preserved. Therefore, implementation of the proposed LMP would be consistent with the transportation goal and policies described above.

j. Noise Goals and Policies

GOAL NO-1 ***Protection from Excessive Noise.*** *Ensure that new land uses, transportation activities, and construction do not create noise levels that impair human health or quality of life.*

NO-1.3 ***Regulate Noise Generating Activities.*** *Require measures to minimize noise exposure to neighboring properties, open space, and wildlife habitat from construction-related activities, yard maintenance equipment, and other noise sources, such as amplified music.*

Consistency with Noise Goals and Policies: The proposed project would not change an existing land use, although it would temporarily increase noise levels in the project area during implementation of certain management/maintenance activities. Construction noise would be limited to daytime hours in compliance with the county's noise ordinance. Therefore, implementation of the proposed LMP would be consistent with the noise goals and policies of the Countywide Plan.

k. Public Health Goals and Policies

PH-1.2 ***Promote Physical Activity.*** *Increase opportunities for and interest in safe and pleasant physical activity.*

PH-1.3 ***Promote Healthy Environments.*** *Provide school and community environments and policies that foster healthy lifestyles and behavior.*

Consistency with Public Health Goals and Policies: The project would enhance the open space areas in Homestead Valley by implementing best management practices for: removing invasive vegetation and reducing fire fuels; restoring native habitat; and maintaining roads and trails. Therefore, the project would be consistent with these public health policies.

l. Historical and Archaeological Resources Policies and Actions

HAR-1.3 ***Avoid Impacts to Historical Resources****. Ensure that human activity avoids damaging cultural resources.*

HAR-1.d ***Require Archaeological Surveys for New Development.*** *Require archaeological surveys conducted on site by a State-qualified and FIGR recommended archaeologist for new development proposed in areas identified as potential resource locations on the County sensitivity map.*

Consistency with Historical and Archaeological Resources Policies and Actions: No cultural resources (including paleontological [fossils], historical, or archaeological sites) are recorded in the project area. One cultural resource that qualifies as a historical resource under CEQA (the Dipsea Trail) is recorded adjacent to the northwest portion of Zone 3, but the project would not affect it. Paleontological resources are not expected to occur at the depth at which project activities would occur.

As described in Section V.13, the environmental consultants conducted background research to identify the baseline conditions for cultural resources in the project area and to determine potential impacts of implementing the proposed project. Management activities could result in impacts to previously unidentified paleontological, archaeological, or historical sites, objects, or structures. Mitigation measures have been included to reduce potential impacts to cultural resources to a less than significant level. The project, therefore, is consistent with these historical and archaeological resources policies and actions.

m. Parks and Recreation Goals and Policies

GOAL PK-1 ***A High-Quality Parks and Recreation System.*** *Provide park and recreation facilities and programs to meet the various needs of all county residents.*

PK-1.1 ***Conduct and Coordinate Park Planning.*** *Develop park and recreation facilities and programs to provide for active recreation, passive enjoyment, and protection of natural resources as a complement to local, state, and national parks and open space in Marin.*

PK-1.2 ***Consider User Needs, Impacts, and Costs.*** *Plan and develop any needed new park and recreation facilities and programs to meet the desires of the community and protect environmental resources.*

PK-1.3 ***Protect Park Resources from Impacts of Climate Change.*** *Identify strategies to protect park resources from the effects of climate change, such as violent weather, plant loss or change due to moisture and temperature changes, and sea level rise.*

Consistency with Parks and Recreation Goals and Policies: The LMP includes trail maintenance activities to assess and improve the condition of existing trails within the plan area. Although some small spur and underutilized trails would be decommissioned, heavily used trails would be retained, repaired, and/or upgraded to meet basic design standards. In addition, trails with connections to adjacent GGNRA lands would be preserved. Therefore, the proposed project would be consistent with the parks and recreation goal and policies identified above.

c) Affect agricultural resources, operations, or contracts (e.g. impacts to soils or farmlands, impacts from incompatible land uses, or conflicts with Williamson Act contracts)?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 2, 5, 6)	☐	☐	☐	☒

The project site consists of undeveloped land in an unincorporated area of Marin County. The site and surrounding properties are not used for agricultural production, zoned for agricultural uses, subject to any Williamson Act contracts,[10] or designated as Prime Farmland by the US Department of Conservation[11]. Therefore, the proposed project would not affect agricultural resources.

d) Disrupt or divide the physical arrangement of an established community (including a low income or minority community)?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☐	☒

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 consists of dedicated open space and park land within the established Homestead Valley community. The proposed project recommends land management actions for fire fuel reduction, native species preservation, trail and road maintenance and community engagement. Implementation of the LMP would not disrupt or divide the surrounding community because the proposed project would not involve any land use changes or construction of a physical feature or removal of a means of access within the Homestead Valley community.

[10] County of Marin, Countywide Plan Map Viewer, http://gisprod.co.marin.ca.us/CWP/Viewer/bottom/Viewer.asp.

[11] California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, *Marin County Important Farmland 2010 Map*, May 2011. Available online at: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/mar10.pdf (Accessed 28 August 2013).

e) Result in substantial alteration of the character or functioning of the community, or present or planned use of an area?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 2, 4)	☐	☐	☒	☐

Implementation of the LMP would preserve and restore the native vegetation within the project area. Proposed land management actions would be consistent with existing management practices and would comply with goals and policies established by Marin County Parks (e.g., draft Vegetation and Biodiversity Management Plan and draft Road and Trail Management Plan). The project would not create a new land use or increase traffic in the area (refer to Section V.6, *Transportation/Circulation*). Proposed management actions would continue to be compatible with adjacent residential and open space uses. Therefore, the proposed project would not alter the character or functioning of the surrounding community. This impact would be less than significant.

f) Substantially increase the demand for neighborhood or regional parks or other recreational facilities, or affect existing recreational opportunities?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 2, 4)	☐	☐	☒	☐

The proposed project would have no impact on existing neighborhood and regional parks or other recreational facilities since the project area provides recreational facilities (e.g., trails) and does not generate demand for such uses. The LMP does not propose new connections to existing parks that would increase use of those facilities. The proposed project would not increase demand for additional parks or recreational facilities, because it does not include the construction of residential uses and would not generate population growth in Marin County.

The plan area currently provides passive recreation opportunities (e.g., trails) for local residents and visitors. Although the LMP recommends decommissioning redundant, small, spur, under-used, and unsustainable trails in Zones 6 and 7, heavily used trails would be retained, repaired, and/or upgraded to meet basic design standards. In addition, the LMP preserves trails with connections to adjacent GGNRA lands. Therefore, the proposed project would not affect existing recreational opportunities. This impact would be less than significant.

2. POPULATION AND HOUSING

Would the proposal:

a) Increase density that would exceed official population projections for the planning area within which the project site is located as set forth in the Countywide Plan and/or community plan?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☐	☒

As described above in Section V.1.f, implementation of the LMP would serve existing Homestead Valley residents and would not increase the population of Marin County. Therefore, the proposed project would not affect population projections as set forth in the Countywide Plan.

b) Induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or extension of major infrastructure)?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☐	☒

The LMP does not propose new homes or businesses, and would not require the extension of roads and other infrastructure into previously undeveloped areas. Land management actions, proposed as part of the LMP, would not induce population growth, but would further the preservation goals of the County/HVLT and improve visitor access to the plan area. Therefore, the proposed project would not directly or indirectly induce substantial population growth in the area.

c) Displace existing housing, especially affordable housing?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☐	☒

The proposed project would not include the demolition or construction of residential uses; therefore, the project would not displace any existing housing.

3. GEOPHYSICAL

Would the proposal result in or expose people to potential impacts involving:

a) Location in an area of geologic hazards, including but not necessarily limited to: 1) active or potentially active fault zones; 2) landslides or mudslides; 3) slope instability or ground failure; 4) subsidence; 5) expansive soils; 6) liquefaction; 7) tsunami; or 8) similar hazards?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4, 5, 7, 8, 9 , 10, 11)	☐	☒	☐	☐

Unless otherwise noted, this section is based on information obtained from the *Countywide Master Plan* and the County of Marin's Map Viewer.[12]

Faults: No mapped active faults cross the project site. The San Andreas Fault, located approximately five miles west of the site, is the only active fault in Marin County subject to the Alquist-Priolo Earthquake Fault Zoning Act. 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 are less than significant. In addition, the proposed project activities would not be particularly susceptible to seismic shaking impacts since no new structures are proposed. Therefore, potential impacts related to seismic shaking are less than significant (landslides, which can be triggered by seismic shaking, are discussed in more detail below).

Subsidence: No documented regional subsidence has occurred in the vicinity of the project site and the proposed project does not propose any activities (e.g., groundwater pumping) that would contribute to subsidence. Therefore, this impact is less than significant.

Expansive Soils: Expansion and contraction of volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly. Expansive soils are common throughout California and can cause damage to foundations and slabs unless properly treated during construction. The dominant soil type within the project site, the Tocaloma-McMullin complex, has low shrink-swell potential and low expansiveness potential.[13] In addition, the proposed project does not include the construction of structures or infrastructure that if damaged, would create substantial risk to life or property. Therefore, this impact is less than significant.

Liquefaction: Liquefaction is the transformation of saturated, loose, fine-grained sediment to a fluid-like state because of earthquake shaking or other rapid loading. Soils most susceptible to liquefaction are loose to medium dense, saturated sands, silty sands, sandy silts, non-plastic silts and gravels with poor drainage, or those capped by or containing seams of impermeable sediment. The project site has a very low susceptibility to liquefaction.[14] Therefore, impacts associated with liquefaction would be less than significant.

Tsunamis, Seiches, and Dam Failure: The project site is located in the hilly uplands of Marin County and would not be subject to coastal hazards (including tsunamis or seiches). The project site is not located within a dam inundation zone.[15]

Landsliding: Slope failure can occur as either rapid movement of large masses of soil ("landslide") or slow, continuous movement ("creep"). The project site (particularly zones 1, 2, and 6 includes areas that are considered "mostly landslides."[16]) Areas categorized as "mostly landslides" consist of mapped

[12] County of Marin, Countywide Plan Map Viewer, http://www.marinmap.org/Geocortex/Essentials/Marinmap/Web/Viewer.aspx?Site=MMDataViewer

[13] United States Department of Agriculture, Natural Resources Conservation Service, and United States Department of the Interior, National Park Service. 2013. Soil survey of Golden Gate National Recreation Area, California. (Accessible online at: http://soils.usda.gov/survey/printed_surveys).

[14] Association of Bay Area Governments, 2013, Liquefaction Susceptibility Maps, Website accessed 9/6/13: http://quake.abag.ca.gov/earthquakes/

[15] Association of Bay Area Governments, 2013, Dam Failure Inundation Maps, Website accessed 9/6/13: http://www.abag.ca.gov/bayarea/eqmaps/damfailure/dfpickc.html

[16] USGS, 1997, Summary Distribution of Slides and Earth Flows in the San Francisco Bay Region, California. OFR 97-745c

landslides, intervening areas narrower than 1,500 feet, and narrow borders around landslides. Many of these are historical; however, any area that contains landslides constitutes a potential slope stability hazard.

Slope instability (which can result in landslides) is a concern because it can cause damage to infrastructure and buildings, and in some cases can even result in injuries or deaths. Landslides can also generate large quantities of easily-erodible material, and therefore, can impact runoff water quality and degrade downgradient habitats (e.g., Reed Creek). The main factors that affect slope instability are slope steepness, soil type, underlying geologic material type and structure, vegetation, subsurface water content, and human activity (e.g., loading a slope with weight or excavating and undercutting the slope toe) In addition, seismic shaking can trigger a landslide. Of these factors, implementation of the LMP could most affect vegetation, subsurface water content, and human activity, and therefore, the following discussion focuses on these factors.

IMPACT 3.1: The types of activities proposed by the LMP, including vegetation removal and equipment operation supporting the removal could affect slope stability in some locations. In some cases, vegetation removal would result in direct removal of root systems (e.g., pulling brush by the roots) or indirect loss of root systems by eventual decay (e.g., tree removal when stumps and roots are left behind but the tree is killed). Root systems tend to add cohesion to surface soils and reduce soil moisture content through evapotranspiration. Under most circumstances, most of the increase in landslide activity after a tree removal operation can be attributed to a decrease in slope cohesion resulting from root decay.[17]

Residential structures are located very near the borders of several zones of the project site. Several residential structures on Edgewood Drive are located uphill and adjacent to Zones 1 and 2. Vegetation removal and/or other ground disturbance activities (e.g., road and trail maintenance) on the relatively steep slopes within Zones 1 and 2 could contribute to destabilization of slopes below these homes. Similarly, several residential structures on Ridgewood Avenue and Laverne Avenue are located adjacent and just downhill from Zone 6. If vegetation removal or other ground disturbance activities were to contribute to slope instability within Zone 6, landslide debris could move downhill and affect these homes.

It should be noted that the potential for slope instability would likely be increased if one or more major wildfires were to occur within the vicinity of the project site without LMP implementation. Therefore, implementation of the LMP would likely reduce region-wide long-term slope instability related to potential post-fire conditions. The LMP includes the following guidelines that would reduce potential impacts related to vegetation management and landslides:

The LMP includes Best Management Practices (BMPs) that, while not specifically designed to address potential slope instability issues, would partially reduce the potential to cause erosion and instability, including:

> ***BMP-Invasive Plant-3 - Limit Soil Disturbance***
>
> *Minimize soil disturbance during vegetation management actions, including road and trail maintenance, mechanical treatments, and prescribed burns, to the greatest extent possible to reduce the potential for introduction or spread of invasive plant species, to protect topsoil*

[17] Rice, R.M., 1977, Forest Management to Minimize Landslide Risk, in: Guidelines for Watershed Management, FAO Conservation Guide, Rome, Italy, pp. 271-287.

resources and to reduce available habitat for new invasive plant species. Remove only enough vegetation to accomplish the management objectives.

BMP-Invasive Plant-6 - Protect Stream Banks and Water Quality During Invasive Plant Removal

Install approved erosion control measures and non-filament based geotextiles when working near wetlands, streams, creeks, ponds, and riparian areas, and following the removal of invasive plants from stream banks to prevent sediment movement into watercourses and to protect bank stability. *Work in wetlands (e.g., Reed Creek, other creeks and streams, seeps, willows) will require compliance with necessary regulatory permits and the County IPM Ordinance related to work in and near wetlands.*

MITIGATION: Although these policies reduce the potential for landslides resulting from vegetation removal and ground disturbance, they do not fully mitigate for the impact from the LMP. These policies do not provide adequate safeguards in all cases for the protection of existing structures. This potentially-significant impact can be mitigated to a less-than-significant level through the implementation of the following mitigation measure:

Mitigation Measure 3.1-1:

Prior to implementation of any proposed vegetation removal activity, the recommended treatment area shall be screened for potential landslide activation risk using the following procedure:

1) Marin Parks staff shall refer to the most currently available landslide mapping from the United States Geologic Survey or the California Geological Survey for the project site vicinity (for example, the USGS, 1997, Summary Distribution of Slides and Earth Flows in the San Francisco Bay Region, California. OFR 97-745c).

2) If all of the following criteria are satisfied then no further action to address potential landslide activation would be required:

   - The area to be treated within the recommended treatment area is located in an area listed as “stable”, “few landslides”, or equivalent;

   - The average slope steepness of the recommended treatment area is less than 10 degrees (about 18 percent);

   - There is no visible evidence of landslide activity (e.g., scarps, crooked trees, landslide-generated debris piles) within the recommended treatment area, as documented by a field reconnaissance by Marin Parks staff; and

   - There are no habitable structures within 50 feet of the top or toe of the slope of the recommended treatment area.

3) Marin Parks staff shall retain a qualified professional (e.g., State-certified geologist or geotechnical engineer) to conduct a geotechnical reconnaissance to evaluate the potential impacts of fuel reduction activities or vegetation type conversion on future landslide potential if the following conditions are present:

- Habitable structure(s) are located within 50 feet of the top or toe of the slope of the treatment area, and

- The prescribed treatment would include the use of heavy equipment or machinery and significant ground disturbing activities (i.e., this requirement would not apply to methods such as hand treatment, weed-eating, or chemical treatment), and one or more of the following conditions is identified:

  - The treatment area is listed as “unstable”, “many landslides” on applicable slope stability mapping, or

  - The average slope steepness of the treatment area is greater than 10 degrees (about 18 percent); or

  - There is visible evidence of landslide activity (e.g., scarps, crooked trees, landslide-generated debris piles) within the treatment area, as documented by a field reconnaissance.

All recommendations of the qualified professional shall be documented in writing and provided to Marin Parks. These measures may include one or more of the following:

- Avoiding the proposed activity or scheduling the activity in the dry season (to avoid work on saturated, less stable slopes);

- Avoiding removal of vegetation in overly steep terrain and/or in areas where past slope movement is evident;

- Erosion control BMPs that focus on keeping sediment on the slopes and minimizing the potential development of rill and gulley erosion. These measures may include placement of rice straw, hydromulch, geofabrics, wattles, sediment traps, check dams, drainage swales, and/or sand bag dikes.

- Follow-up inspections by the qualified engineering geologist or geotechnical engineer to ensure that conditions are stable and erosion is not occurring.

If excessive erosion occurs after a vegetation removal activity is conducted (excessive shall be defined as that level of erosion that could contribute to activation of a landslide or surface soil movements that could affect off-site properties) or slope movements are observed, the engineering geologist or geotechnical engineer shall prepare and implement a slope stabilization plan. Stabilization plans that rely on biotechnical treatments (rather than hardscape solutions, such as riprap) are preferred.

Monitoring Measure 3.1-1: The Marin County Parks staff shall verify that Mitigation Measure 3.1-1 has been fully implemented.

b) Substantial erosion of soils due to wind or water forces and attendant siltation from excavation, grading, or fill?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

Implementation of the LMP, which includes road and trail maintenance, upgrades and decommissioning, would include grading activities that could result in soil erosion. Exposed soils are considered erodible when subjected to concentrated surface flow or wind. Soil erosion and loss of topsoil would be minimized with implementation of BMPs outlined in the LMP. These BMPs include:

> ***BMP-Invasive Plant-3 - Limit Soil Disturbance***
>
> *Minimize soil disturbance during vegetation management actions, including road and trail maintenance, mechanical treatments, and prescribed burns, to the greatest extent possible to reduce the potential for introduction or spread of invasive plant species, to protect topsoil resources and to reduce available habitat for new invasive plant species. Remove only enough vegetation to accomplish the management objectives.*
>
> ***BMP-Invasive Plant-6 - Protect Stream Banks and Water Quality During Invasive Plant Removal***
>
> *Install approved erosion control measures and non-filament based geotextiles when working near wetlands, streams, creeks, ponds, and riparian areas, and following the removal of invasive plants from stream* banks to prevent sediment movement into watercourses and to protect bank stability. *Work in wetlands (e.g., Reed Creek, other creeks and streams, seeps, willows) will require compliance with necessary regulatory permits and the County IPM Ordinance related to work in and near wetlands.*

With implementation of these BMPs, potential impacts associated with erosion and sedimentation would be less than significant.

Would the proposal result in:

c) Substantial changes in topography from grading or fill, including, but not necessarily limited to: 1) ground surface relief features; geologic substructures or unstable soil conditions; and 3) unique geologic or physical features?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4, 5)	☐	☐	☒	☐

Implementation of the LMP could require some excavation and fill, primarily for road and trail maintenance, repair and decommissioning. However, these activities would result in only a modest change in elevation and the existing topography of the project site would be maintained. Therefore, the proposed project would not result in significant impacts to geologic features on the site.

4. WATER

Would the proposal result in:

a) Substantial changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

As discussed above in Section V.3, *Geophysical*, the proposed project would not significantly affect the topography of the site. The proposed project would not increase the amount of impervious surfaces. BMPs would be implemented during vegetation management and road and trail maintenance activities to reduce potential siltation and erosion impacts, as listed above in Section V.3.b. Therefore, the proposed project would not result in significant changes to absorption rates, drainage patterns, or the rate and amount of surface runoff.

b) Exposure of people or property to water related hazards, including, but not necessarily limited to: 1) flooding; 2) debris deposition; or 3) similar hazards?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4, 12)	☐	☐	☒	☐

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map prepared for the vicinity of the project site[18], the project site is not located within the 100-year flood hazard zone (i.e., an area in which there is a one percent chance of flooding in any given year). The project does not propose the construction of habitable structures within the floodplain. The project would not result in any changes to watercourses that could increase flooding in the area or downstream. Therefore, the proposed project would not expose people or structures to significant impacts associated with flooding or similar hazards. This impact would be less than significant.

c) Discharge of pollutants into surface or ground waters or other alteration of surface or ground water quality (e.g. temperature, dissolved oxygen or turbidity?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable

[18] Federal Emergency Management Agency, 2009. Flood Insurance Rate Map, Marin County and Unincorporated Areas (Map Number 06041C0468D). 4 May. Available online at: http://map1.msc.fema.gov/idms/IntraView.cgi?ROT=0&O_X=7200&O_Y=5175&O_ZM=0.038647&O_SX=556&O_SY=399&O_DPI=400&O_TH=6580302&O_EN=6580302&O_PG=1&O_MP=1&CT=0&DI=0&WD=14400&HT=10350&JX=1259&JY=778&MPT=0&MPS=0&ACT=0&KEY=6788649&ITEM=1&ZX1=459&ZY1=260&ZX2=557&ZY2=394 (Accessed 28 August 2013).

(source #(s): 1, 4, 13)	☐	☐	☒	☐

The project site is located within the Homestead Valley watershed and drains to Reed Creek. Reed Creek flows to the east/southeast and enters Arroyo Corte Madera del Presidio. This stream discharges to Richardson Bay.

Implementation of the LMP, which includes vegetation removal, road and trail maintenance, upgrades and decommissioning, would include grading activities that could result in soil erosion. Exposed soils are considered erodible when subjected to concentrated surface flow or wind. In addition, IPM herbicide application could result in introduction of these chemicals to stormwater runoff or directly to Reed Creek, degrading water quality. Potential soil erosion and impacts related to the application of herbicides would be minimized with implementation of BMPs outlined in the LMP. These BMPs include:

> ***BMP-Invasive Plant-3 - Limit Soil Disturbance***
>
> *Minimize soil disturbance during vegetation management actions, including road and trail maintenance, mechanical treatments, and prescribed burns, to the greatest extent possible to reduce the potential for introduction or spread of invasive plant species, to protect topsoil resources and to reduce available habitat for new invasive plant species. Remove only enough vegetation to accomplish the management objectives.*
>
> ***BMP-Invasive Plant-6 - Protect Stream Banks and Water Quality During Invasive Plant Removal***
>
> *Install approved erosion control measures and non-filament based geotextiles when working near wetlands, streams, creeks, ponds, and riparian areas, and following the removal of invasive plants from stream* banks to prevent sediment movement into watercourses and to protect bank stability. *Work in wetlands (e.g., Reed Creek, other creeks and streams, seeps, willows) will require compliance with necessary regulatory permits and the County IPM Ordinance related to work in and near wetlands.*

The County's Integrated Pest Management Plan (IPM) ordinance (Ordinance No. 3521) specifies that the County must "take all reasonable measures to ensure that pest control activities do not threaten environmental, wildlife, and human health." Compliance with these BMPs, the IPM ordinance and other applicable permits and standards (e.g., accepted herbicide application methods) would ensure that potential impacts to water quality related to erosion and herbicide application would be less than significant.

Pile burning could increase the release of nutrients (i.e., nitrate, phosphate, and sulfate) to downstream creeks because fire can increase the mobilization of these nutrients by reducing nutrients bound in woody vegetation to fine particles that can be entrained in runoff. Investigators in the Tahoe Basin recently developed and implemented empirical field studies to determine, in part, if pile burning was a significant contributor to downstream water quality degradation.[19] The study results suggest that pile burning does not contribute a strong pulse of nutrients downslope and that "inconsequential nutrient transport"[20] was observed at 23 feet downslope of burn piles. This suggests that as long as

[19] Hubbert, K., and Overby, S., 2013. Effects of Pile Burning in the LTB on Soil and Water Quality, SNPLMA 12576 Final Report, September 30.
[20] Ibid., page 55.

burn piles are located more than 25 feet from downstream receiving waters that no water quality impact would be expected. Reed Creek flows through Zone 4. The LMP does not include any specific restrictions on where pile burning may occur and so this is a potentially significant impact to receiving water quality.

IMPACT 4.1-1: The LMP proposes to conduct pile burning, which could occur near Reed Creek, potentially impacting water quality.

MITIGATION: Implementation of the following mitigation measure would reduce this impact to a less than significant level.

Mitigation Measure 4.1-1: Pile burning shall not occur within 25 feet of the top of banks Reed Creek, whether water is flowing in the creek or not.

> **Monitoring Measure 4.1-1:** The Marin County Parks staff shall verify that Mitigation Measure 5.1-1 has been fully implemented.

d) Substantial change in the amount of surface water in any water body or ground water either through direct additions or withdrawals, or through intersection of an aquifer by cuts or excavations?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

The proposed project does not include any facilities that would change the surface water in any water body or ground water through direct additions or withdrawals. In addition, the proposed project would not interfere with any aquifer. Therefore, the potential for the proposed project to result in substantial changes in the amount of surface water in any water body or ground water would be less than significant.

e) Substantial changes in the flow of surface or ground waters, including, but not necessarily limited to: 1) currents; 2) rate of flow; or 3) the course or direction of water movements?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

As described above in Section V.4.a, the proposed project would not increase the rate of surface runoff into Reed Creek. The proposed project would not alter the course or direction of water movements on or adjacent to the site. This impact would be less than significant.

f) Substantial reduction in the amount of water otherwise available for public water supplies?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable

(source #(s): 4)	☐	☐	☐	☒

The proposed project would not increase water demand and would not affect any water supply facilities downstream of the site. Therefore, the proposed project would not reduce the quantity of public water supplies.

5. AIR QUALITY

Would the proposal:

a) Generate substantial air emissions that could violate official air quality standards or contribute substantially to an existing or projected air quality violation?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4, 14)	☐	☒	☐	☐

Regulatory Framework: The Federal Clean Air Act and the California Clean Air Act of 1988 require that the State Air Resources Board, based on air quality monitoring data, designate portions of the state where the federal or state ambient air quality standards are not met as "non-attainment areas". Parts of the Bay Area are classified as non-attainment areas for ozone under the federal standard and for particulate matter (PM10) under the more stringent state standard.

BAAQMD Regulation 5 generally prohibits open burning, but allows for exemptions such as agricultural burning; disposal of hazardous materials; fire training; and managed burning of range, forest, and wildlife areas. The following section of Regulation 5 specifically addresses pile burning:

- Regulation 5, Section 5-401 Allowable Fires: The following fires may be allowed on permissive burn days:
    - 401.6 Hazardous Material: Any fires set for the purpose of the prevention or reduction of a fire hazard, including the disposal of dangerous materials. The fire must be set or allowed by any public fire official having jurisdiction, in the performance of official duty. The fire must, in the opinion of such officer, be necessary, and the fire hazard not able to be abated by any other means. However, these fires may also be conducted to dispose of materials generated to comply with an order or notice issued by a fire official pursuant to Section 4291 of the State Public Resources Code provided all of the following conditions are satisfied:
        a. Only natural vegetation or other native growth may be burned;
        b. The amount of material to be burned shall be greater than 5 cubic yards cleared annually from a single property;
        c. The material is burned where it was grown without being moved to a different location unless approved by the Air Pollution Control Officer (APCO);
        d. The material is inaccessible for removal by vehicle and available alternatives to burning such as shredding, chipping, composting, disking, plowing, and harrowing are not feasible; and
        e. The material, if ignited accidentally, would result in a fire of such magnitude as to immediately threaten life or adjacent improved property or resources and require an excessive fire suppression effort.

    No fires involving piled material shall be ignited or take place before 9:30 a.m. local time on any day. Prior reporting pursuant to Section 5-406 must be made to the APCO by the person setting the fire.

    - 5-406 Prior District Notification; Disease and Pest, Crop Replacement, Orchard Pruning and Attrition, Double Cropping Stubble, Forest Management, Flood Debris, Fire Training, Flood Control, Irrigation Ditches, Range

Management, Hazardous Material, and Contraband: The person setting the fire shall provide electronic, typewritten, legibly handwritten, or computer printed notification to the District prior to the burn on a District-approved form or facsimile thereof. If notification is submitted by mail, the document must be postmarked at least 5 calendar days prior to the burn. The notification form must be completely filled out with accurate information to satisfy this requirement. For structural fire training, written notification shall also be made to the APCO at least 10 working days prior to the burn pursuant to the requirements of Regulation 11-2-401.3 (Asbestos Demolition, Renovation and Manufacturing)

- 5-111 Conditional Exemptions: The following special conditions must be met for fires allowed by subsections 5-401.1 through 401.17 unless specifically exempted by the APCO prior to burning, and these conditions shall be complied with during any burning permitted under those subsections. In addition, a condition, requirement, or parameter stated in or imposed by a smoke management plan approved by the APCO may supersede any one of these conditions.
    - 111.1 No burning shall take place before 10:00 a.m. local time on any day.
    - 111.2 No additional materials or fuel shall be ignited, nor shall any material or fuels be added to any fire after two hours before sunset on any day.
    - 111.3 No material or fuel shall be ignited, nor shall any material or fuel be added to any fire when the wind velocity is less than five miles per hour except for cross firing, or when the wind direction at the site shall be such that the direction of smoke drift is toward a populated area in order to minimize local nuisances caused by smoke and particulate fallouts.
    - 111.4 Prior to ignition, all piled material shall have dried for a minimum of 60 days, and be managed to ensure that burning the material does not produce smoke after sunset on any day.
    - 111.5 All material to be burned shall be reasonable free of dirt or soil.
    - 111.6 Piled material shall be limited to a base are not to exceed 25 square yards and the height shall be at least two thirds of the average width of the pile.
    - 111.7 Ignition material shall be limited to those listed by the State Director of Forestry, as follows: orchard torches; drip torches; pressurized diesel torches; propane or LPG torches; commercial petroleum gel materials, pressurized or solid; commercial safety fuses; commercial type ignition grenades, fuses; commercial fuse lighters and matches. All fires shall be ignited so as to burn as rapidly as possible within conditions of safety and minimum pollution.
    - 111.8 Ignition shall be initiated at or near the top of the piled material. No additional material, except ignition material, shall be added to the fire.
    - 111.9 Tonnage, volume or acreage of material burned on any given day and/or at any specified site is subject to limitations set by the APCO, but may not exceed any limits set by the ARB

Long-term Project Impacts: Long-term air emissions impacts are associated with any change in permanent use of the project site by on-site stationary and off-site mobile sources that substantially increase vehicle trip emissions. The Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines identify projects likely to result in a significant air quality impact, for which an air quality impact analysis must be prepared. These projects are those that generate more than 2,000 vehicle trips per day. The proposed project does not exceed this criterion; therefore, such an analysis is not required. Given that the proposed project is not expected to generate additional vehicle trips, the proposed project would not result in long-term air quality impacts. The proposed project would not generate substantial emissions of ozone and particulate matter that would contribute to air quality violations in the region.

Short-term Project Impacts: Air pollutant emissions associated with the proposed project would occur over the short term as a result of road and trail maintenance, habitat restoration activities, and fuel modification/fire management activities.

Impact 5.1: Implementation of management/maintenance activities could generate exhaust emissions and fugitive dust that would affect local air quality.

Management/maintenance activities could generate combustion emissions from utility engines, equipment hauling materials to/from the site, and motor vehicles transporting work crews. Exhaust emissions during implementation of these activities would vary in intensity and duration depending on the specific activity being performed. The use of construction equipment would result in localized exhaust emissions. Due to the limited extent (i.e., small areas at any given time, limited mileage of roads and trails to maintain) and the nature of activities proposed (i.e., habitat restoration, exotic vegetation removal) in the LMP, the project short-term exhaust emissions are expected to be below emissions thresholds established by the BAAQMD.

Management/maintenance activities may also generate fugitive dust emissions during road and trail maintenance, habitat restoration activities, and fuel modification/fire management over the short term. Construction dust would affect local air quality at various times during construction of the proposed project. The dry, windy climate of the area during the summer months creates a high potential for dust generation if underlying soils are exposed. Clearing, vegetation removal, and earthmoving activities have a high potential to generate dust whenever soil moisture is low and particularly when the wind is blowing.

MITIGATION: Implementation of Mitigation Measure 5.1-1 would reduce construction-related dust and emissions to a less than significant level.

Mitigation Measure 5.1-1: When feasible, Parks shall implement the following actions consistent with guidance from the BAAQMD:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks 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 manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at Marin County regarding dust complaints. This person shall respond and take corrective action within 48 hours.

Monitoring Measure 5.1-1: Parks shall ensure that the above measure is implemented throughout the construction period.

b) Expose sensitive receptors to pollutants, such as noxious fumes or fugitive dust?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☒	☐	☐

Approximately 100 homes are located adjacent to the project site. Other sensitive receptors in the project area include single and multi-family residences, a community center and local businesses.

As described above, implementation of the LMP is not expected to result in increased visitation to the plan area nor an associated increase in the number of car trips to the project site. Vehicle emissions associated with the use of the plan area would be similar to what occurs today under existing conditions. Air pollutant emissions are anticipated to be the same as currently occurs and potential exposure of sensitive receptors to substantial pollutant concentrations is considered less than significant.

Implementation of the management and maintenance activities proposed in the LMP may expose surrounding sensitive receptors to airborne particulates and fugitive dust; a small quantity of construction equipment pollutants (i.e., diesel-fueled vehicles and equipment); and on days with pile burns, an increase in smoke emissions. Impacts are expected to be below peak-day pollutant threshold criteria given the limited extent and nature of these activities and would be of short duration. In addition, construction contractors would be required to implement measures for dust control consistent with the BAAQMD (Mitigation Measure 5.1-1).

Impact 5.2: Due to the proximity (within 500 feet) of portions of the plan area to residential uses (sensitive receptors), pile burning could expose sensitive receptors to substantial pollutant concentrations. Pile burning would be conducted in accordance with BAAQMD Regulation 5 and all applicable federal, state and local ordinances and would only be conducted after review and approval by Marin County Parks.

MITIGATION: Implementation of Mitigation Measure 5.2-1 would reduce this impact to a less than significant level.

Mitigation Measure 5.2-1: Each pile burn plan shall follow BAAQMD's Regulation 5 and shall be conducted usingthe following avoidance techniques for sensitive areas and potential problems that could arise relating to smoke production and dispersion:

- Pile burns shall only be conducted on designated burn days as authorized by the BAAQMD, which will maximize the dispersal and dilution of smoke produced.
- Burn piles shall be stacked under the supervision and guidance of Parks staff or the appropriate fire agency to maximize burn efficiency and minimize smoke production.
- Pile burns shall be conducted when wind patterns are determined to carry smoke away from sensitive areas.
- If smoke dispersal is determined by park staff or fire personnel to be occurring in the wrong direction, or if smoke is determined to be spreading into sensitive areas, offending fires shall be fully extinguished immediately.
- Notification of the burn should be distributed to residences within 500 feet of a burn pile.

Monitoring Measure 5.2-1: During planned pile burning, Parks shall verify that this measure has been implemented.

c) Alter air movement, moisture, or temperature, or cause any change in climate?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of greenhouse gases (GHGs) that keep the Earth's surface warm by trapping heat in the Earth's atmosphere. While many studies show evidence of warming over the last century and predict future global warming, the causes of such warming and its potential effects are far less certain. In its "natural" condition, the greenhouse effect is responsible for maintaining a habitable climate on Earth, but human activity has caused increased concentrations of these gases in the atmosphere, thereby contributing to an increase in global temperatures.

GHGs are present in the atmosphere naturally, are released by natural sources, or formed from secondary reactions taking place in the atmosphere. The six gases that are widely seen as the principal contributors to global climate change are: Carbon dioxide (CO_2), Methane (CH_4), Nitrous oxide (N_2O), Hydroflourocarbons (HFCs), Perflourocarbons (PFCs), and Sulfur Hexaflouride (SF_6).

According to the Countywide Plan, nearly three million tons of carbon dioxide are emitted in Marin County every year. Vehicle traffic accounts for 50 percent of the total emissions, and energy use by buildings (residential, commercial, and industrial combined) accounts for 41 percent.

Project Impacts: The proposed project would implement land management actions to preserve and restore native habitats, reduce fire fuels, maintain roads and trails, and remove invasive exotic vegetation. These actions would not result in increased GHG emissions because the project would not increase vehicle trips or vehicle miles traveled on the roadway. Therefore, no new regional vehicle emissions would occur and this impact is deemed less-than-significant.

Implementation of certain management actions (e.g., vegetation removal, road and trail maintenance) would produce combustion emissions from various sources, including the operation of construction equipment and worker vehicles, which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide, methane, and nitrous oxide. Furthermore, methane is emitted during the fueling of heavy equipment. Exhaust emissions would vary daily as construction activity levels change. Due to the limited extent (i.e., small areas at any given time, limited mileage of roads and trails to maintain) and the nature of activities proposed (i.e., habitat restoration, exotic vegetation removal) in the LMP, project emissions are anticipated to be only a small fraction of the total statewide greenhouse gas emissions released annually. Therefore, the project would not generate significant greenhouse gas emissions.

Implementation of the proposed project would not generate significant GHG emissions. Therefore, implementation of the LMP would not result in alterations to local temperatures and would not result in a significant contribution to changes in the global climate. Additionally, the proposed project would not have an effect on air movement or moisture. This impact would be less than significant.

d) Create objectionable odors?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

Some objectionable odors may emanate from the operation of diesel-powered construction equipment during implementation of certain management actions (i.e., vegetation control, road and trail maintenance). However, these odors would be short term in nature and would not result in permanent impacts to surrounding land uses, including sensitive receptors in the vicinity of the project site. Air pollutant emissions are anticipated to be the same as currently occurs and long-term exposure of sensitive receptors to objectionable odors is considered less than significant. Therefore, no significant impacts related to objectionable odors would result from the proposed project. This impact would be less than significant.

6. TRANSPORTATION/CIRCULATION

Would the proposal result in:

a) Substantial increase in vehicle trips or traffic congestion such that existing levels of service on affected roadways will deteriorate below acceptable County standards?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 3, 4)	☐	☐	☒	☐

The Transportation Authority of Marin monitors roadway segments for Congestion Management Program facilities in Marin County. The segment of Shoreline Highway (State Route 1) from Almonte Boulevard to Sir Francis Drake Boulevard is the nearest monitored roadway to the project site and currently operates at level of service (LOS) A in the eastbound and westbound directions during the PM peak hour.

The proposed project is a LMP that provides management actions to protect and enhance natural resources, reduce fire fuels, remove invasive exotic species, and conduct road and trail maintenance. No new facilities are proposed as part of the LMP. Given the intent of the LMP is to manage/restore natural resources and to maintain the existing recreational opportunities, use of the plan area is not expected to increase beyond existing levels. The number of vehicle trips accessing the plan area would be similar to the number of trips occurring today. Therefore, implementation of the LMP would not interfere with traffic on local roadways or affect the existing or future traffic load and capacity of local roadways. This impact would be less than significant.

b) Traffic hazards related to: 1) safety from design features (e.g. sharp curves or dangerous intersections); 2) barriers to pedestrians or bicyclists; or 3) incompatible uses (e.g. farm equipment)?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable

(source #(s): 4)	☐	☐	☒	☐

Implementation of the LMP would improve safety within the plan area. As proposed in the LMP, road and trail facilities would be maintained and improved consistent with county safety standards. Therefore, the proposed project would not result in traffic hazards related to safety from design features, barriers to pedestrians or bicyclists or incompatible uses.

c) Inadequate emergency access or access to nearby uses?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

Implementation of the LMP would not significantly alter roads or other infrastructure comprising emergency access routes on the local streets adjacent to and within the plan area. The project site currently has adequate emergency vehicle access and the project would not impede the existing access to the site or nearby uses. This impact would be less than significant.

d) Insufficient parking capacity on-site or off-site?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

Implementation of the LMP would not increase visitation to the plan area nor an associated increase in the number of car trips to the project site; therefore, no additional parking would be required. The project would not change the amount of available parking; therefore, impacts to parking would be less than significant

e) Substantial impacts upon existing transportation systems, including rail, waterborne or air traffic systems?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

The proposed project is not anticipated to substantially increase vehicle trips to the site, and therefore, impacts to the existing transportation system would be less than significant.

7. BIOLOGICAL RESOURCES

Would the proposal result in:

a) Reduction in the number of endangered, threatened or rare species, or substantial alteration of their habitats including, but not necessarily limited to: 1) plants; 2) fish; 3) insects; 4) animals; and 5) birds listed as special-status species by State or Federal Resource Agencies?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☒	☐	☐

During research and fieldwork conducted for the LMP, two special-status species were identified as occurring in the plan area. The northern spotted owl occurs in Zone 7 and the Oakland star-tulip occurs in Zone 6. In addition, migratory birds, raptors, and special-status species of bats may be affected by proposed management actions. Monarch butterfly aggregations and roosting herons could potentially occur within the vicinity, but are unlikely to occur in the plan area. These species are highly visible and would have been observed during surveys conducted for the LMP, if present. Likewise, the California red-legged frog, foothill yellow-legged frog, and western pond turtle are unlikely to occur in the plan area because of marginal habitat and distance from known occurrences.

Northern Spotted Owl. Northern spotted owls nest within or adjacent to Zone 7. The LMP includes Best Management Practices (BMPs) to protect northern spotted owl in Zone 7, specifically:

> ***BMP-Fire Fuel Reduction-2: Develop Plans for Managing Fuels within Special Status Species Populations***
>
> *At present these lands support two special status species: Northern spotted owl in Zone 7 and Oakland star tulip in Zone 6. Use these guidelines to reduce the potential for impacts to these species:*
>
> - *Northern Spotted Owl: Time fire fuel reduction work in Zone 7, near known populations to occur after bird nesting season (i.e., after August 15th and before March 15th of each year) and avoid removal or damage to trees near the historic nest site(s).*
> - *Oakland star tulip: This plant is an annual bulb, so time fire fuel reduction work in Zone 6, near known populations to occur when the above-ground parts of the plant have died off (late summer-winter). Avoid ground disturbance around known populations where possible (i.e., avoid damaging underground bulbs).*

Implementation of this BMP will adequately protect the northern spotted owls of Zone 7. This impact would be less than significant and no mitigation measures are required.

Migratory Birds and Raptors. The LMP includes BMPs to protect nesting birds, specifically:

> ***BMP-Fire Fuel Reduction-3: Protect Nesting Birds***

Use these guidelines to reduce the potential for impact to these species, especially when doing work during bird nesting season (March 15th –August 15th):

- *Time tree removal and brush trimming work to after bird nesting season (i.e., conduct work after August 15th and before March 1st) wherever possible.*

- *If work must occur during bird nesting season (March 1st to August 15th), conduct a pre-project survey for nesting birds and proceed with work only if birds are not nesting within the project area. If bird nests are found, delay work until After August 15th.*

Since tree removal would be avoided during the nesting season (March 1st to August 15th), impacts to the nests and nestlings of migratory birds and raptors would be less than significant.

Oakland Star-Tulip. Oakland star-tulips grow in Zone 6 and are visible during the spring. As described above, the LMP includes BMPs to protect Oakland star tulip, including avoiding work during its growing period and avoiding ground disturbance around known populations.

IMPACT 6.1: The LMP proposes to stack logs cut from non-native trees in four-foot by four-foot areas, chip non-native species and leave the chips on-site as a mulch. and pile brush that has been cut for burning on-site. If covered by non-native logs, chips, or burn piles, native species, including Oakland star-tulip may not be able to re-establish. Piling logs, adding mulch (from chipping), or burning piles of brush on top of areas supporting Oakland star-tulip would impact this species.

Mitigation Measure 6.1-1: Stacks of logs, deposition of chips, and construction of burn piles shall only be located in areas supporting non-native species.

Monitoring Measure 6.1-1: Marin County Parks staff shall ensure that areas identified for logs, chips, and burn piles will not adversely affect the Oakland star-tulip.

Bats. Species of bats could roost in the large eucalyptus trees that are proposed for removal and could be adversely affected when the trees are removed. Bats have their young between April 15th and August 31st and the young are not able to take care of themselves during this period. Hibernation can occur between October 15th and March 1st.

IMPACT 6.2: Removal of trees with young bats present or removal of trees when bats could be hibernating in the tree branches, under tree bark, or in cavities, could result in harm to bats.

MITIGATION: Implementation of the following mitigation measures would reduce this impact to a less than significant level.

Mitigation Measure 6.2-1: Small eucalyptus trees shall be surveyed for bats prior to removal. Small eucalyptus trees are unlikely to contain cavities and loose bark that would provide roosting sites for bats. Furthermore, the eucalyptus canopy is often sparse enough that a roosting bat could be observed prior to removal.

Mitigation Measure 6.2-2: Large eucalyptus trees shall be removed between September 1st and October 15th or surveyed for bat roosting or hibernating to avoid both the breeding period and the hibernation period for bats.

Monitoring Measure 6.2-1 and 6.1-2: The Marin County Parks staff shall ensure 1) that small eucalyptus are examined for bats, if removal is outside of the work period extending from

September 1st to October 15th and 2) that large eucalyptus trees are removed between September 1st and October 15th or surveyed for bat presence outside those dates.

b) Substantial change in the diversity, number, or habitat of any species of plants or animals currently present or likely to occur at any time throughout the year?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☒	☐	☐

Habitat Modification

Leaf litter on the forest floor of redwood forests, coast live oak woodland, and mixed oak/bay woodland is an important habitat component. Invertebrates, such as worms, arachnids, and insects occur in the debris and litter and are food for small vertebrates. These small vertebrates include western skink (*Plestiodon skiltoneanus*), western fence lizard (*Sceloporus occidentalis*), alligator lizards (*Elgaria* spp.), arboreal salamander, and (*Aeniedes legubrus*), and slender salamander (*Batrachoseps attenuates*).

The leaf litter and other detritus beneath eucalyptus and acacia woodlands may not be as important for biodiversity as is the leaf litter and detritus of native woodlands. The thatch (layers of grass leaves and stems) that occurs in native and non-native grasslands is detrimental to native species. Native species are not adapted to grow through the thick layer of thatch that accumulates in non-native and some native grasslands, so it is desirable to remove thatch from these areas.

IMPACT 6.3-1: BMP Fire Fuel Reduction-1, Process Green Waste to Reduce Risk of Ignition, includes removal of leaf litter, woody debris, and other detritus. Removal of leaf litter, woody debris, and other detritus from redwood forests, coast live oak woodland, or mixed oak/bay woodland, would reduce the habitat and correspondingly reduce the species diversity of woodland animals.

MITIGATION: Implementation of the following mitigation measure would reduce this impact to a less than significant level.

Mitigation Measure 6.3-1: Leaf litter, woody debris, and other detritus shall not be removed from redwood forests, coast live oak woodland, or mixed oak/bay woodland except within the Defensible Space Zone (within 100 feet of structures), unless recommended by a fire ecologist, biologist, regulatory agencies, or other biological professional.

> **Monitoring Measure 6.3-1:** The Marin County Parks staff shall monitor treatment sites to ensure that leaf litter, woody debris, and other detritus remains within native forests including redwood forests, coast live oak woodland, and mixed oak/bay woodland.

Native Perennial Grassland and other Native Species. Native perennial grassland is a sensitive habitat type that occurs in patches throughout the plan area. It is mapped as large stands in Zone 1 but also occurs in smaller un-mapped stands within the California annual grassland, mixed oak/bay woodland, coast live oak woodland, and northern coastal scrub habitats in other zones. Native and non-native trees and shrubs are colonizing and out-competing the native perennial grassland, resulting in a decline in the amount of area supporting this habitat type.

Goal Bio 1 of the Marin Countywide Plan requires the County to "effectively manage and enhance native habitat, maintain viable native plant and animal populations, and provide for improved

biodiversity throughout the County." Management activities that would damage stands of native plant species would result in a reduction of biodiversity and would degrade native habitat.

The LMP proposes to stack logs cut from non-native species of trees in four-foot by four-foot areas, chip non-native species and leave the chips on-site as mulch, and construct burn piles from cut brush. If covered by logs, chips, or burn piles, native species, including perennial grassland, would be harmed and/or would not be able to re-establish. Mulch from chips, stacks of logs, and brush piles would harm the native perennial grassland and other native species if improperly placed.

IMPACT 6.4: Piling logs, adding mulch (from chipping), or placing burn piles on top of areas supporting native perennial grassland and other native species would reduce the amount of grassland, reduce native species and biodiversity and would degrade native habitat.

MITIGATION: Implementation of Mitigation Measure 6.1-1 would reduce this impact to a less than significant level.

IMPACT 6.5: Drift from herbicides used in the treatment of non-native woody species could affect the native perennial grassland growing in the understory.

MITIGATION: Implementation of the following mitigation measure would reduce this impact to a less than significant level.

Mitigation Measure 6.5-1: Stems of woody species shall be cut above the level of native grass species so that these native species will not be damaged by herbicide treatment of cut stumps.

Mitigation Measure 6.5-2: In areas where drift could land on native perennial grass or where non-native species are the same height as the native perennial grass, dicot-specific herbicide shall be used to avoid damage to native perennial grass.

Mitigation Measure 6.5-3: If the herbicide is effective on both dicots and monocots, areas supporting native grassland shall be treated during the dry season to reduce effects to native grassland species.

Mitigation Measure 6.5-4: Weed control contractors shall be instructed in how to identify broom, eucalyptus, and other target non-native species and how to identify common native species such as coast live oak, California bay, and purple needlegrass.

> **Monitoring Measure 6.5-1 to 6.5-4:** Prior to treatment, Marin County Parks staff shall identify areas with native perennial grass. Staff shall ensure that the weed control contractor can identify the non-native species being treated and native species to be avoided. Staff shall also ensure that treatment occurs during the proper time of year and that the proper herbicide is used.

Intermittent and Ephemeral Watercourses

Reed Creek and other intermittent and ephemeral watercourses occur within some of the zones in the plan area. As described above, these watercourses are subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW). Some of these watercourses may be narrow and may not be observable to the untrained eye.

IMPACT 6.6: Management activities, including invasive species removal and trail construction, could result in impacts to watercourses, particularly indistinct watercourse without well-defined boundaries.

MITIGATION: Implementation of the following mitigation measures would reduce this impact to a less than significant level.

Mitigation Measure 6.6-1: Marin County Parks staff shall locate watercourses within each project area prior to construction. In addition, staff shall use stakes or other field identification techniques to identify the watercourse and shall instruct contractors and field staff avoid these features.

Mitigation Measure 6.6-2: Cut logs and chips shall not be located within any of the watercourses.

Monitoring Measure 6.6-1 and 6.6-2: The Marin County Parks staff shall ensure that watercourses are identified and avoided by management activities.

c) Introduction of new species of plants or animals into an area, or improvements or alterations that would result in a barrier to the migration, dispersal, or movement of animals?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

The proposed project would result in the removal of non-native species. With the best management practice of checking equipment prior to entering any of the zones and prior to leaving the zones, spread of non-native species would be reduced. The proposed project would not result in the imposition of any barriers to the movement of animal species across any of the zones.

8. ENERGY AND NATURAL RESOURCES

Would the proposal result in:

a) Substantial increase in demand for existing energy sources, or conflict with adopted policies or standards for energy use?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☒	☐

The proposed project would implement land management actions within the open space areas of Homestead Valley; it would not affect energy demand. The project does not conflict with adopted policies or standards for energy use. This impact would be less than significant.

b) Use of non-renewable resources in a wasteful and inefficient manner?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☒	☐

Implementation of the LMP would not require substantial amounts of energy for construction or operation. Although the LMP covers a vast area, proposed actions consist of specific projects within

each of the seven zones. Many of these actions would be conducted using brushcutters, weedeaters, mowers, or other light equipment or by hand-pulling invasive species. Consequently, the impact to non-renewable resources from the project would be less than significant.

c) Loss of significant mineral resource sites designated in the Countywide Plan from premature development or other land uses which are incompatible with mineral extraction?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1)	☐	☐	☒	☐

The Marin Countywide Plan does not designate the project site as an actual or suspected repository of mineral resources. Therefore, the proposed project would not result in significant impacts to mineral resources. This impact would be less than significant.

9. HAZARDS

Would the proposal involve:

a) A risk of accidental explosion or release of hazardous substances including, but not necessarily limited to: 1) oil, pesticides; 2) chemicals; or 3) radiation?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

Limited quantities of herbicides are currently used on-site as part of exotic vegetation removal. The proposed project is a LMP that provides management actions to protect and enhance natural resources, reduce fire fuels, and remove invasive exotic species. Implementation of the LMP would continue and may expand upon the existing land management activities and would not require the routine use, transport, or disposal of hazardous materials. Marin County Parks staff would continue to use herbicides on-site. These materials would be used and stored consistent with local, state, and federal regulations. Therefore, impacts related to hazardous materials would be less than significant.

b) Possible interference with an emergency response plan or emergency evacuation plan?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☒	☐

Implementation of the LMP would not significantly alter any roads or infrastructure comprising emergency response or evacuation routes. Implementation of the LMP would not interfere with traffic on local roadways since the number of vehicle trips accessing the plan area would be similar to the number of trips occurring today and existing or future traffic load and capacity of local roadways would not be affected.

The elimination of underutilized spur trails may facilitate emergency response/evacuation by concentrating users to designated trailheads and would also allow for a coordinated evacuation of the plan area during an emergency; thereby, improving the situation over current conditions. Potential impacts related to impairment of emergency response plans and evacuation routes would be less than significant.

c) The creation of any health hazard or potential health hazard?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

The proposed project consists of land management actions to be implemented in an existing open space area. As described above, limited quantities of herbicides would be used for exotic species removal. These materials would be used and stored consistent with local, state, and federal regulations. In addition, pile burning may be used to remove brush in the plan area. Pile burning would be conducted in accordance with BAAQMD Regulation 5 and all applicable federal, state and local ordinances and would only be conducted after review and approval by Marin County Parks. Further, pile burning would be implemented by the appropriate fire agency or Marin County Parks. Therefore, it is unlikely that the project would create a health hazard or potential health hazard, and this potential impact would be less than significant.

d) Exposure of people to existing sources of potential health hazards?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

As described above, limited quantities of herbicides are currently used and would continue to be used for exotic species removal. These materials would be used and stored consistent with local, state, and federal regulations. Therefore, implementation of the LMP would not expose park users to health hazards, and this potential impact would be less than significant.

e) Increased fire hazard in areas with flammable brush, grass, or trees?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☒	☐

Portions of the plan area have been designated as high fire classification by the Marin Countywide Plan. The greatest potential for fire damage exists at the interface between the plan area and adjacent residential development. The proposed LMP does not include new recreational facilities nor does it involve the construction of any residential or commercial areas or any structures for human occupation. Further, the LMP contains policies aimed at reducing wildland fire risk by managing vegetation growth, removing invasive exotic species, and maintaining defensible space zones. These policies would improve the urban/wildland interface between the plan area and existing adjacent residential uses, reducing the potential for extensive damage related to wildfires within the plan area when compared to

existing conditions. As outlined in the project description, pile burning may be used as one method of brush removal in locations that would minimize the scorching of overstory trees or surrounding vegetation. Pile burning would be conducted in accordance with BAAQMD Regulation 5 and all applicable federal, state and local ordinances and would only be conducted after review and approval by Marin County Parks. Further, pile burning would be implemented by the appropriate fire agency or Marin County Parks. Therefore, this impact would be less than significant.

10. NOISE

Would the proposal result in:

a) Substantial increases in existing ambient noise levels?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 2, 4)	☐	☒	☐	☐

Primary noise sources within the plan area include traffic along neighboring roadways, airplanes flying overhead, construction, and minimal noise associated with recreational use of the trails in the plan area.

The County Noise Element includes guidelines for noise levels for residential, commercial, and industrial development. These guidelines establish an outdoor noise level threshold of 60 decibels LDN for residential developments. The County's Noise Ordinance establishes the maximum permissible noise level that may intrude into a neighbor's property and noise level standards for various land use categories affected by stationary noise sources. The County's Noise Ordinance also regulates the timing of construction activities and includes special provisions for sensitive land uses. According to the County's Noise Ordinance, construction activities shall occur only between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday and from 9:00 a.m. and 5:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays and federal holidays. However, Section 670.030(5) exempts construction projects of city, county, state and/or other public agencies/utilities from adhering to this statute.

Long-Term Noise Impacts: Implementation of the proposed project would not result in an increase in daily traffic trips in the plan area; subsequently, the proposed project would not result in substantial traffic noise effects on adjacent land uses. The project area is an existing open space use and implementation of the proposed management actions outlined in the LMP would not increase ambient, long-term noise levels in the project area.

Short-Term Noise Impacts: Portions of the plan area are adjacent to residential development. These sensitive receptors could be exposed to high intermittent noise levels during implementation of proposed management actions.

IMPACT 10.1: Implementation of proposed management actions could expose sensitive receptors to high intermittent noise levels.

MITIGATION: Implementation of the following mitigation measure would reduce this impact to a less than significant level.

Mitigation Measure 10.1-1: When management activities are proposed in proximity to sensitive receptors (e.g., within 100 feet of residential uses), Marin County Parks staff shall comply with Chapter 6.70 of the Marin County Code, the County's Noise Ordinance, which limits the hours of construction to between 7:00 a.m. and 6:00 p.m., Monday through Friday and from 9:00 a.m. and 5:00 p.m. on Saturdays. No work shall be conducted on Sundays and federal holidays.

Monitoring Measure 10.1-1: During implementation of management activities near residential uses, Marin County Parks shall ensure that the provisions of the County's Noise Ordinance are implemented.

b) Exposure of people to significant noise levels, or conflicts with adopted noise policies or standards?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

The proposed project would not expose people to significant noise levels. As described above, the project area is an existing open space use and implementation of land management actions proposed in the LMP would not increase noise levels for visitors of the park or surrounding land uses. Therefore, noise impacts would be less than significant.

11. PUBLIC SERVICES

Would the proposal have an effect upon, or result in a need for new or altered governmental service in any of the following areas

a) Fire protection?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☒	☐

Fire protection and emergency response services for the project site and surrounding vicinity are provided by the Southern Marin Fire Protection District and the Marin County Fire Department. As a wildland area which could be subject to wildfires, the LMP contains policies aimed at reducing wildland fire risk by managing vegetation growth, removing invasive exotic species, and maintaining defensible space zones. These policies would improve the urban/wildland interface between the plan area and adjacent residential uses, thereby reducing the potential for extensive damage related to wildland fire. As outlined in the project description, pile burning may be used as one method of brush removal. Pile burning would be conducted in accordance with BAAQMD Regulation 5 and all applicable federal, state and local ordinances and would only be conducted after review and approval by Marin County Parks. Further, pile burning would be implemented by the appropriate fire agency or Marin County Parks. This impact would be less than significant.

b) Police protection?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☒	☐

The Marin County Sheriff's Department currently provides adequate police protection services to the project site and surrounding vicinity. Implementation of the LMP would not increase visitation to the plan area or result in an increase in demand for police protection. Therefore, impacts to police protection would be less than significant.

c) Schools?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☒	☐

Because the LMP would not result in any local or regional population increase, implementation of the LMP would not require construction of new schools or result in schools exceeding their capacity. Impacts to schools would be less than significant.

d) Maintenance of public facilities, including roads?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☒	☐

Implementation of the LMP would include road and trail management activities, such as periodic clearing of overgrown vegetation; trail repairs; repair of gates, signs, trailheads, and other facilities; decommissioning redundant or under-utilized trails. The proposed LMP would not result in any increase in demand for public facilities, including roads. Therefore, impacts to public facilities would be less than significant.

e) Other governmental services?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☒	☐

Because the LMP would not result in any local or regional population increase, implementation of the LMP would not result in an increase in demand for government services. The demand for government services would be essentially the same whether or not the county implements the proposed project. Therefore, impacts to other governmental services would be less than significant.

12. UTILITIES AND SERVICE SYSTEMS

Would the proposal result in a need for new systems, or substantial alterations to the following utilities:

a) Power or natural gas?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

The proposed project would not result in an increase in demand for power or natural gas, as no power or natural gas facilities would be provided or constructed as part of implementing the LMP. Therefore, impacts to power or natural gas facilities would be less than significant.

b) Communications systems?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

The proposed project would not result in an increase in demand for communication systems, as no communication systems would be provided as part of the project. Therefore, communications systems would not be affected by development of the proposed project.

c) Local or regional water treatment or distribution facilities?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

The proposed project would not result in an increase in demand for local or regional water treatment or distribution facilities, as no such facilities would be provided or constructed as part of implementing the LMP. Water may be required for dust suppression or other vegetation management actions. However, the amount of water required would be minimal, would be distributed to the site via water trucks and would only be needed during these management activities. Therefore, impacts to water treatment or distribution facilities would be less than significant.

d) Sewer or septic tanks?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

No sewer or septic tanks are proposed as part of the LMP; therefore, the proposed project would not

increase the demand for on-site sewer or septic facilities. Impacts to these facilities would be less than significant.

e) Storm water drainage?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

The proposed project would not result in significant changes to stormwater drainage. The proposed project would not include any paving or substantial amounts of other impervious surfaces. The plan includes BMPs to reduce potential siltation and erosion impacts. With implementation of these BMPs, the proposed project would not result in an increase in stormwater runoff, erosion or sedimentation on- or off-site. Please refer to Section V.4 (a) of this Initial Study for a more detailed discussion of stormwater drainage. This impact would be less than significant.

f) Solid waste disposal?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

The proposed project could generate some solid waste associated with implementation of proposed land management actions. However, the amount of solid waste generated would be similar to what occurs today. Therefore, solid waste disposal facilities would not be affected by development of the proposed project and this impact would be less than significant.

13. AESTHETICS/VISUAL RESOURCES

Would the proposal:

a) Substantially reduce, obstruct, or degrade a scenic vista open to the public or scenic highway, or conflict with adopted aesthetic or visual policies or standards?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☒	☐

The proposed project would not include the construction of any buildings or other facilities that would change the visual quality of the site. Implementation of the LMP would involve removing invasive species, restoring native vegetation, maintaining existing roads and trails, and clearing of vegetation for fire fuel reduction. These actions would be similar to the land management activities currently conducted by HVLT in the plan area. Although vegetation would be removed, habitat restoration, road and trail improvements, and removal of invasive species could improve visual quality on the site. The proposed project would not result in significant impacts to the visual character of the plan area, substantially reduce or degrade a scenic vista or conflict with an adopted visual policy or standard. This impact would be less than significant.

b) Have a demonstrable negative aesthetic effect by causing a substantial alteration of the existing visual resources including, but not necessarily limited to: 1) an abrupt transition in land use; 2) disharmony with adjacent uses because of height, bulk, or massing of structures; or 3) cast of a substantial amount of light, glare, or shadow?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 1, 4)	☐	☐	☒	☐

As described in Section IV.12(a) above, implementation of the LMP would be consistent with the visual landscape of the area and would not result in a substantial or adverse change to the visual quality or character of the site and surroundings. The LMP consists of land management actions, including vegetation removal, habitat restoration (e.g., planting), and road and trail maintenance, that are similar to the management activities currently conducted by the HVLT in the plan area. As such, implementation of the LMP would not result in an abrupt transition or change in land use. No structures are proposed as part of the LMP; therefore, the proposed project would not result in height, bulk, or massing that would create any disharmony with the surrounding area or cast any light, create glare, or result in any shadows. No lighting would be installed as part of the LMP and no glare-inducing materials (i.e., glass, metal) would be used. Therefore, the proposed project would not have a demonstrable negative aesthetic impact resulting from substantial alteration of existing visual resources.

14. CULTURAL RESOURCES

Would the proposal:

a) Disturb paleontological, archaeological, or historical sites, objects, or structures?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4, 15, 16, 17, 18)	☐	☒	☐	☐

A historical resource consists of “Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, a resource shall be considered by the lead agency to be ‘historically significant if the resource meets the criteria for listing on the California Register of Historical Resources” (CCR Title 14(3) §15064.5(a)(3)).

Baseline Conditions Summary

LSA conducted background research to identify the baseline conditions for cultural resources in the LMP project area. Archival research and a review of pertinent literature and environmental information was used to determine if recorded cultural resources exist within the project area, as well as the potential for as-yet-unidentified resources. The background research consisted of a records search at

the Northwest Information Center (NWIC) conducted on October 8, 2013; contact with the California Native American Heritage Commission (NAHC) on September 19, 2013; and a review of historical, environmental, and archaeological literature. Due to the relatively low intensity of proposed project actions (i.e., limited projected ground disturbance and lower potential for effect) and the ruggedness of the project area terrain that reduced the likelihood that resources might be present, LSA did not conduct a field survey.

As part of the records searches done for the project, LSA also reviewed the following state and local inventories for historical resources in the project site:

- *California Inventory of Historic Resources* (California Department of Parks and Recreation 1976);
- Five Views: An Ethnic Historic Site Survey for California (California Office of Historic Preservation 1988);
- *California Historical Landmarks* (California Office of Historic Preservation 1996);
- *California Points of Historical Interest* (California Office of Historic Preservation 1992); and
- *Directory of Properties in the Historic Property Data File* (California Office of Historic Preservation, April 5, 2012). The directory includes the listings of the National Register of Historic Places, National Historic Landmarks, the California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest.

Results. The NWIC records search (#13-0455) conducted by NWIC staff identified a portion of one cultural resource, P-21-000493/CA-MRN-566H (the Dipsea Trail), on Sequoia Valley Road adjacent to the northwest portion of Zone 3 of CSA 14. A 7.44-mile segment of the Dipsea Trail was listed on the National Register of Historic Places (NRHP) in 2010 based on a nomination form submitted to the California State Historical Resources Commission on March 15, 2010, by historian D.S. Livingston of The Dipsea Foundation. The Dipsea Trail is eligible for the NRHP under Criterion A for its association with the history of entertainment and recreation in Marin County. Due to its NRHP listing, the Dipsea Trail is also automatically listed on the California Register of Historical Resources (CRHR), which qualifies the trail as a historical resource under Public Resources Code §21084.1.

The NRHP documentation clearly indicates that the Lytton Square to Windy Gap segment of the Dipsea Trail is adjacent to, but outside of, Zone 3. No contributing features such as stone trail improvements, erosion-control features, or steps are located in Zone 3.

Seventeen cultural resource studies have been conducted that include all or portions of CSA 14 within their study areas. However, these reports have little utility with respect to this analysis because they included little or no field work, are missing maps, have inadequate locational information, or are overviews that do not specifically address CSA 14 (e.g., regional syntheses).

On September 19, 2013, LSA faxed a letter describing the project and a map depicting CSA 14 to the NAHC requesting a review of their Sacred Lands File for any Native American cultural resources that might be affected by the proposed project. LSA received a faxed response on September 24, 2013, from Debbie Pilas-Treadway, Environmental Specialist III with the NAHC, stating that a search of the

Sacred Lands File "failed to indicate the presence of Native American cultural resources in the immediate project area."

No unique geologic resources are located in CSA 14. Geologic maps indicate the project area is underlain by the Jurassic Period (202 to 145 million years old) Franciscan Formation, which is a disorderly assemblage of sedimentary and ultramafic rock that contains sandstone, shale, and conglomerate.[2122] Fossils are rare in rocks of Franciscan lithology, with most of the older fossils are from rocks east of the Hayward fault, or an extension of this fault drawn from Berkeley to Eureka, and all of the late Cretaceous fossils are from areas west of this line.[23] Possible fossil types associated with the Franciscan Complex include clams, and ammonites, microfossils, and trace fossils. Vertebrate fossils are also known to occur in Franciscan Formation deposits, but are rare.

In summary, no cultural resources were identified in CSA 14, but one resource that qualifies as a historical resource under CEQA, a segment of the Dipsea Trail, is recorded adjacent to but not within Zone 3. While fossils occur in the Franciscan formation, they are not expected at the depth of project activities.

Project Components

The LMP calls for a variety of management actions to reduce fire risk, preserve native species, maintain trails and park facilities, and engage the public. Proposed management actions would be consistent with Marin County Parks' Draft Vegetation and Biodiversity Management Plan and Draft Road and Trail Management Plan that will be used to guide work on 34 open space preserves. Only a few of the proposed actions have the potential to impact cultural resources. These actions include fire fuel reduction, invasive plant control, habitat restoration, and road and trail maintenance.

Potential Impacts

The potential impact on cultural resources from fire fuel reduction, invasive plant control, and habitat restoration is not high, although prehistoric and historical archaeological deposits that are either at the location of vegetation management or must be crossed to reach those areas may be subject to disturbance. However, given the steep terrain in most of CSA 14, such resources are not likely to occur. Hand treatment, as the majority of the actions call for, would have minimal (if any) potential impacts. Paleontological resources are not expected to occur at the depth at which proposed project activities would occur.

The potential impact on these resources from road and trail maintenance is potentially more significant. Specifically, mechanical excavation or the creation/use of staging areas for heavy equipment have the potential to encounter or disturb intact archaeological deposits. The actions anticipated to result in potential disturbance include trail repairs (e.g., regrading trails, installing water bars and trail surface stabilization, repairing bridges, stairs, and water crossings) and repairing trailheads. Oftentimes, trails traverse creekside terraces or mid-slope benches that could contain archaeological deposits. Although the low frequency of these topographic features in the CSA 14 does not indicate the likely presence of such resources, there is the possibility that they could occur, in which case grading or erosion control

[21] Page, Ben M., 1966. Geology of the Coast Ranges of California. In *Geology of Northern California – Bulletin* 190*. California Division of Mines and Geology, San Francisco, California.*
[22] Wagner, D.L., E.J. Bortugno, and R.D. McJunkin, 1991. *Geologic Map of the San Francisco—San Jose Quadrangle, California, 1:250,000*. California Department of Conservation, Sacramento.
[23] Edgar, Bailey H., William P. Irwin, and David L. Jones, 1964. *Franciscan and Related Rocks, and their Significance in the Geology of Western California – Bulletin 183.* California Division of Mines and Geology, San Francisco.

excavation that is not restricted to the trail bed itself could encounter and disturb archaeological deposits and/or paleontological resources.

Pile burning is not anticipated to result in impacts due to the minimal intensity of the resulting fire and discreteness of the locations. Should archaeological deposits be present in areas that will be crossed by mechanical equipment or will be excavated for trail-related improvements, there is the potential that such resources will be disturbed by such activity. Should such resources qualify as historical or unique archaeological resources under Public Resources Code §21084.1 or §21083.2, their disturbance may constitute a substantial adverse change in their significance, which would result in a significant impact under *CEQA Guidelines* §15064.5. In addition, human remains are known to co-occur with prehistoric archaeological sites in Marin County and could be subject to disturbance.

IMPACT 13.1: Road and trail management activities could result in impacts to paleontological, archaeological, or historical sites, objects, or structures. Impacts could include disturbance as the result of mechanical treatment and excavation for trail/road maintenance and construction. Human remains, though not anticipated, could also be encountered and disturbed.

MITIGATION: Implementation of the following mitigation measures would reduce this impact to a less than significant level. The impact reduction would occur by avoiding the substantial adverse change in the significance of cultural resources through excluding areas from treatment or by offsetting potential impacts by conducting further study to realize the scientific data that would otherwise be lost through the disturbance of a significant archaeological deposit.

Mitigation Measure 13.1-1: Prior to constructing any project that would involve ground disturbance outside road or trail beds or other areas previously disturbed when constructing the road and trail system, the staff will determine whether or not the project area is located within an area that is mapped as “archaeologically sensitive” in Marin County’s Archaeologically Sensitivity Maps or near a historic structure identified in map 4-1 (Historical Resources) in the Marin Countywide Plan, or identified as culturally sensitive on other confidential maps on file with the county that list prehistoric or archeological sites. If the project area is identified as sensitive on any of these maps, the site will be field surveyed by a state-qualified archeologist who will make recommendations and develop proposals for any procedures deemed appropriate to further investigate and/or mitigate adverse impacts to those resources..**Mitigation Measure 13.1-2:** Prior to constructing any project that would involve ground disturbance outside road or trail beds or other areas previously disturbed when constructing the road and trail system, the staff will contact the Northwest Information Center of the California Historical Resources Information System and request a records search of known historic and cultural resources within and adjacent to the proposed project area, and seek the determination of the information center coordinator regarding the potential for cultural resources on the site. Should the records request or the recommendation of the coordinator indicate the presence of sensitive resources, the site will be field surveyed by a state-qualified archeologist, who will make recommendations and develop proposals for any procedures deemed appropriate to further investigate and/or mitigate adverse impacts to those resources.

Mitigation Measure 13.1-3: Prior to annual management actions for the upcoming year, Marin County Parks shall determine the need to conduct an introductory crew training for all supervisors who will be involved in the oversight of project actions that involve excavation in undisturbed native soil. The training will involve basic techniques in identifying archaeological artifacts that could indicate the presence of an archaeological deposit, as well as the procedures and requirements for avoiding direct impacts to such areas and the notification protocol to alert HVLT officials. The training shall be conducted by a professional archaeologist and shall be incorporated as a Best Management Practice of

the LMP to be implemented on an annual basis prior to the selection and scheduling of the upcoming year's management actions.

Mitigation Measure 13.1-4: Should any potential archaeological deposit or cultural resource feature be identified by crews during mechanical treatment, mechanical equipment shall not operate within the known boundary of the resource. A professional archaeologist shall be retained to review the discovery and recommend ways to avoid potential impacts; such recommendations will be implemented, if feasible. If avoidance is not feasible, the archaeologist shall evaluate the resource for CRHR eligibility (in consultation with Native American tribal organizations if the resource is prehistoric in nature). If the resource is eligible for the CRHR (and therefore qualifies as a historical resource), the archaeologist shall recommend treatment for the resource that will offset the potential impact; Marin County Parks will implement these recommendations.

Mitigation Measure 13.1-5: Though it is not anticipated, should any potential paleontological resources be identified by crews during mechanical treatment, mechanical equipment shall not operate within the known boundary of the resources. A professional paleontologist shall be retained to review the discovery and recommend ways to avoid potential impacts; Marin County Parks will implement these recommendations. If avoidance is not feasible, the paleontologist shall assess the significance of the find according to professional paleontological standards and recommend treatment for the find should it qualify as significant; Marin County Parks will implement these recommendations

Mitigation Measure 13.1-6: Should any human remains be identified by crews during any type of treatment, project activity in the immediate vicinity of the find shall be temporarily halted. The remains shall then be treated in accordance with Health and Safety Code Section 7050.5. The county shall inform work crew supervisors (as part of Mitigation Measure 13.1-2) of the potential for encountering human remains and the proper protocol for treating such a discovery.

> **Monitoring Measure 13.1-1 to 13.1-6:** The Marin County Parks staff shall ensure that pre-excavation field reviews, training sessions, and accidental discovery procedures are implemented.

b) Have the potential to cause a physical change that would adversely affect unique ethnic cultural values, or religious or sacred uses within the project area?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4, 15, 16, 17, 18)	☐	☐	☒	☐

No cultural resources are recorded in the project area. LSA research at the NAHC indicated that no sacred lands or Native American cultural resources have been recorded in the project area. However, should such resources be identified, they will most likely take the form of prehistoric archaeological deposits. Beyond the scientific value of such resources, tribal organizations and descendant communities may ascribe cultural or religious value to such deposits as evidence of ancestral use of the area (please note that human remains are acknowledged as a distinct potential impact in the previous discussion). The mitigation measures described in the previous section (Mitigation Measures 13.1-1 through 13.1-5) will mitigate the impact to any archaeological deposits that may have unique ethnic cultural or sacred values. Coordination with the pertinent descendant groups will be required to

ensure that those groups have the ability to influence the significance assessment and treatment recommendations. Therefore, the LMP will not affect any unique ethnic cultural values, or religious or sacred uses. This impact would be less than significant.

15. SOCIAL AND ECONOMIC EFFECTS

Would the proposal result in:

a) Any physical changes which can be traced through a chain of cause and effect to social or economic impacts?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
(source #(s): 4)	☐	☐	☒	☐

Implementation of the LMP would result in vegetation removal, some grading, and road and trail maintenance. None of these activities would cause direct or indirect physical changes that would result in social or economic effects. This impact would be less than significant.

VI. MANDATORY FINDINGS OF SIGNIFICANCE

Pursuant to Section 15065 of the State EIR Guidelines, a project shall be found to have a significant effect on the environment if any of the following are true:

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?	Yes ☐	No ☒	Maybe ☐

As discussed in Section V.7 of this Initial Study, mitigation measures are included in this Initial Study to reduce potential impacts to wildlife and plant species and habitat to a less than significant level. The proposed project would not result in a reduced number or restricted range of any special-status plant or animal. Implementation of the management recommendations included in the LMP would preserve, enhance and restore native habitat, including habitat for special-status species such as Oakland star tulip.

As discussed in Section V.14 of this Initial Study, mitigation measures are included in this Initial Study to reduce potential impacts to examples of California history or prehistory.

B. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	Yes ☐	No ☒	Maybe ☐

As discussed in Section V of this Initial Study, the project would not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals since any potential environmental impacts from the proposed project would be mitigated to a less than significant level.

C. 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).	Yes ☐	No ☒	Maybe ☐

All impact analyses in this Initial Study considered cumulative as well as individual potential environmental impacts. As discussed in Section V, the project would not have the potential to cause cumulative impacts and all potential environmental impacts from the proposed project would be mitigated to a less than significant level. For this reason, the proposed project would not make a cumulatively considerable contribution towards a cumulative impact related to erosion, water quality, or biological and cultural resources, because the initial study mitigates these impacts. In fact, implementation of the LMP would preserve, enhance and restore native habitat and reduce fire risk within the plan area.

D. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	Yes ☐	No ☒	Maybe ☐

As described in Section V of this Initial Study, any potential environmental impacts from the proposed project would be mitigated to a less than significant level. Section V.9 indicates no hazards to human beings would result from the proposed project. Section V.4 indicated no flood related hazards would result from the proposed project. As discuss in Section V.3, implementation of the LMP could result in increased landslide hazards associated with vegetation removal on steep slopes. This Initial Study includes mitigation measures to reduce potential geologic hazards impacts to a less than significant level.

VII. PROJECT SPONSOR'S INCORPORATION OF MITIGATION MEASURES

Acting on behalf of Marin County Parks, I (undersigned) have reviewed the initial study for the Community Service Area 14 (Homestead Valley) Land Management Plan and have particularly reviewed the mitigation measures and monitoring programs identified herein. As this is a public project, all mitigation measures are included in the project.

_____ _____

President, of the BOS Date

VIII. DETERMINATION: (Completed by Marin County Environmental Planning Manager). Pursuant to Sections 15081 and 15070 of the State Guidelines, the forgoing Initial Study evaluation, and the entire administrative record for the project:

☐ I find that the proposed project WILL 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 the mitigation measures described on an attached sheet have been added to the project. A 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.

Rachel Warner 1/8/14

Rachel Warner, Environmental Planning Manager, County of Marin Date

APPENDIX A: DOCUMENTS INCORPORATED BY REFERENCE

The following documents specifically have been used in evaluating the proposed project and have been incorporated by reference into the foregoing initial study pursuant to Section 15150 of the State CEQA Guidelines. The number assigned to each information source corresponds to the number listed in parenthesis following the incorporating topical question of the initial study checklist. These documents are both a matter of public record and available for review at Marin County Parks, Room 260 located at 3501 Civic Center Drive, San Rafael. The information incorporated from these documents shall be considered to be set forth fully in the initial study.

1. Marin Countywide Plan, Marin County Community Development Agency – Planning Division, November 6, 2007.

2. Marin County Code Title 22 (Zoning Ordinance).

3. Marin Congestion Management Program Update 2009, Transportation Authority of Marin, September 11, 2009.

4. May and Associates. 2013. *Land Management Plan for the lands within Community Service Area 14 (aka) Homestead Valley, Marin County, CA.* Prepared for Marin County Parks.

5. County of Marin, Countywide Plan Map Viewer, http://gisprod.co.marin.ca.us/CWP/Viewer/bottom/Viewer.asp.

6. California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, *Marin County Important Farmland 2010 Map*, May 2011. Available online at: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/mar10.pdf (Accessed 28 August 2013).

7. United States Department of Agriculture, Natural Resources Conservation Service, and United States Department of the Interior, National Park Service. 2013. Soil survey of Golden Gate National Recreation Area, California. (Accessible online at: http://soils.usda.gov/survey/printed_surveys).

8. Association of Bay Area Governments, 2013, Liquefaction Susceptibility Maps, Website accessed 9/6/13: http://quake.abag.ca.gov/earthquakes/.

9. Association of Bay Area Governments, 2013, Dam Failure Inundation Maps, Website accessed 9/6/13: http://www.abag.ca.gov/bayarea/egmaps/damfailure/dfpickc.html.

10. USGS, 1997, Summary Distribution of Slides and Earth Flows in the San Francisco Bay Region, California. OFR 97-745c.

11. Rice, R.M., 1977, Forest Management to Minimize Landslide Risk, in: Guidelines for Watershed Management, FAO Conservation Guide, Rome, Italy, pp. 271-287.

12. Federal Emergency Management Agency, 2009. Flood Insurance Rate Map, Marin County and Unincorporated Areas (Map Number 06041C0468D). 4 May. Available online at: http://map1.msc.fema.gov/idms/IntraView.cgi?ROT=0&O_X=7200&O_Y=5175&O_ZM=0.038647&O_SX=556&O_SY=399&O_DPI=400&O_TH=6580302&O_EN=6580302&O_PG=1&O_MP=1&CT=0&DI=0&WD=14400&HT=10350&JX=1259&JY=778&MPT=0&MPS=0&ACT=0&KEY=67788649&ITEM=1&ZX1=459&ZY1=260&ZX2=557&ZY2=394 (Accessed 28 August 2013).

13. Marin County Code Chapter 23.19 (Integrated Pest Management Plan Ordinance [Ordinance No. 3521]).

14. Bay Area Air Quality Management District, 2012. California Environmental Quality Act Air Quality Guidelines. May. Available online at: http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_Final_May%202012.ashx?la=en (Accessed 3 October 2013).
15. Page, Ben M., 1966. Geology of the Coast Ranges of California. In *Geology of Northern California – Bulletin* 190*. California Division of Mines and Geology, San Francisco, California.*
16. Wagner, D.L., E.J. Bortugno, and R.D. McJunkin, 1991. *Geologic Map of the San Francisco—San Jose Quadrangle, California, 1:250,000*. California Department of Conservation, Sacramento.
17. Edgar, Bailey H., William P. Irwin, and David L. Jones, 1964. *Franciscan and Related Rocks, and their Significance in the Geology of Western California – Bulletin 183.* California Division of Mines and Geology, San Francisco.
18. Livingston, D.S.. 2010 *National Register of Historic Places Registration Form for the Dipsea Trail.* Completed March 15, 2010. The Dipsea Foundation, Inverness, California.