University of California
San Francisco

Campus Planning

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February 6, 2017

Notice of Preparation of Environmental Impact Report and Initial Study
Notice of a Public Scoping Meeting

Project:	UCSF Mount Sutro Open Space Reserve Vegetation Management Plan
Location:	UCSF Parnassus Heights campus site
Block/Lot:	2634A/011
Sponsor:	University of California, San Francisco (UCSF)
Lead Agency:	The Regents of the University of California
Staff Contact:	Diane Wong, UCSF (415) 502-5952

This is the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) and Initial Study for the above-named project. This document is available at http://campusplanning.ucsf.edu/ for a 30-day public review and comment period beginning **February 6, 2017 through March 8, 2017**.

Project Description

The University of California, San Francisco (UC San Francisco or UCSF) is proposing to adopt and implement a vegetation management plan for the UCSF Mount Sutro Open Space Reserve (Reserve). The University-owned Reserve is a largely undeveloped 61-acre forest located within UCSF's Parnassus Heights campus site at the center of San Francisco. The Reserve is surrounded by UCSF's hospital, research, educational and support structures to the north/northwest, and by urban residential neighborhoods to the south, east, and west. The Reserve, designated as permanent open space by the Regents of the University of California (Regents), is open to the public and serves as a point of respite and recreation for UCSF and for the greater community. The primary purposes of the proposed Vegetation Management Plan (plan) fall into four broad categories:

- Protect the safety of Reserve users and adjacent campus and residential properties
- Improve and enhance the health and stability of the ecosystem
- Enhance the visual design and aesthetic experience in the Reserve
- Maintain and ensure public access to the Reserve

To achieve a healthy and stable ecosystem, the plan outlines strategies for increasing the biodiversity of vegetation, conserving existing native vegetation, improving the regeneration and recruitment of tall tree species, managing insect and disease pressure on blue gum eucalyptus, and improving structural diversity. The purpose of the plan is to provide a management framework for protecting, enhancing, and restoring vegetation in the 61-acre Reserve. University staff worked with consultants and a panel of technical advisors to develop the plan. The Draft plan is available at https://www.ucsf.edu/cgr/cgr-projects/mount-sutro-open-space-reserve.

(continued on next page)

For purposes of the California Environmental Quality Act (CEQA), the University of California is lead agency.

This project may have a significant effect on the environment and an Environmental Impact Report is required. This determination is based upon the criteria of the State CEQA Guidelines, Sections 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance), and for the reasons documented in the Initial Study for the project.

Public Review and Comment

As indicated above, the NOP/Initial Study is available at http://campusplanning.ucsf.edu/ for a 30-day public review and comment period beginning **February 6, 2017 through March 8, 2017.**

To give written feedback on the NOP/Initial Study, comments should be sent to the attention of Ms. Diane Wong at the address noted below, or submitted via email to the following address: **EIR@planning.ucsf.edu**. All comments must be received no later than **March 8, 2017**.

If you would like a paper copy of the NOP/Initial Study, please call the UCSF Campus Planning office at 415-476-2911.

Paper copies of the NOP/Initial Study will also be available for viewing at the UCSF Library at 530 Parnassus Avenue, and the following public library branches: San Francisco Main Branch, 100 Larkin Street; Sunset Branch, 1305 18th Avenue; and the Park Branch, 1833 Page Street.

UCSF will hold a public EIR scoping meeting on Thursday, February 23, 2017. The meeting will be held at the Parnassus Heights campus site at Millberry Union, 500 Parnassus Avenue, beginning at 6:30 PM.

The EIR scoping meeting provides an opportunity for the community to provide verbal feedback on the Initial Study. This allows UCSF to learn about potential concerns early, as well as further define the issues, feasible alternatives, and potential mitigation measures that may warrant in-depth analysis in the environmental review process.

Submit comments on the Initial Study and EIR scoping to:
Diane Wong, Environmental Coordinator
UCSF Campus Planning
654 Minnesota Street
San Francisco, CA 94143-0286
EIR@planning.ucsf.edu

University of California, San Francisco

Vegetation Management Plan for the Mount Sutro Open Space Reserve

Notice of Preparation and Initial Study

February 2017

PANORAMA ENVIRONMENTAL, INC.

One Embarcadero Center, Suite 740 San Francisco, CA 94111 650-373-1200 **www.panoramaenv.com**

University of California, San Francisco

Vegetation Management Plan for the Mount Sutro Open Space Reserve

Notice of Preparation and Initial Study

February 2017

Prepared for:
University of California, San Francisco
Campus Planning
654 Minnesota Street
San Francisco, California 94143-0286

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LIST OF ACRONYMS

A

ACUPCC	American Colleges and University Presidents Climate Commitment
ACOE	United States Army Corps of Engineers
ATCM	Airborne Toxic Control Measure

B

BAAQMD	Bay Area Air Quality Management District
BMP	best management practice
BOD5	5-day biological oxygen demand

C

CAP	Climate Action Plan
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CSS	combined sewer system

E

EIR	Environmental Impact Report

G

GHG	greenhouse gas

I

I-280	Interstate 280
IS	Initial Study

L

LRDP	UCSF's Long Range Development Plan
LSAA	Lake or Streambed Alteration Agreement

M

mgd	million gallons per day

R

Regents	The Regents of the University of California
Reserve	Mount Sutro Open Space Reserve

S

SFBAAB	San Francisco Bay Area Air Basin
SR-35	State Route 35
SVP	Society of Vertebrate Paleontology

T

TASC	Transportation Advisory Staff Committee
TSS	total suspended solids

U

UCSF	University of California, San Francisco

W

WDR	waste discharge requirement
WTP	water treatment plant

ORGANIZATION OF THIS NOTICE OF PREPARATION AND INITIAL STUDY

This Notice of Preparation (NOP) and Initial Study (IS) is organized into the following sections:

- **Section 1: Plan Information.** Provides information about the University of California, San Francisco (UCSF) Mount Sutro Open Space Reserve (Reserve) Vegetation Management Plan (plan), including the lead agency and contact information.
- **Section 2: Plan Location and Description.** Describes the location that the plan covers, the elements included in the plan, and plan approvals.
- **Section 3: Environmental Factors Potentially Affected.** Identifies the environmental factors that would be affected by the plan, including those that involve at least one potentially significant impact.
- **Section 4: Determination.** Indicates whether impacts associated with the proposed plan are significant, and what, if any, additional environmental documentation is required.
- **Section 5: Evaluation of Environmental Impacts.** Contains the Environmental Checklist form from Appendix G of the California Environmental Quality Act (CEQA) Guidelines for each resource area. The checklist is used to assist in evaluating the potential environmental impacts of the proposed plan. This section also presents an explanation of all checklist answers and identifies the impacts that will be addressed in detail in an Environmental Impact Report (EIR).
- **Section 6: Supporting Information Sources.** Lists the references used in the preparation of this document.

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1 PLAN INFORMATION

1.1 PLAN TITLE

Vegetation Management Plan for the UCSF Mount Sutro Open Space Reserve

1.2 LEAD AGENCY AND ADDRESS

University of California, San Francisco
Campus Planning
654 Minnesota Street
San Francisco, California 94143-0286

1.3 CONTACT PERSON

Diane Wong, Environmental Coordinator
UCSF Campus Planning
(415) 502-5952
eir@planning.ucsf.edu

1.4 PLAN LOCATION

UCSF Parnassus Heights campus site
City and County of San Francisco
Coordinates: 37° 45′ 29.2″ N, 122° 27′ 27.66″ W

1.5 PLAN SPONSOR'S NAME AND ADDRESS

See "Contact Person"

1.6 CUSTODIAN OF THE ADMINISTRATIVE RECORD FOR THIS PLAN

See "Contact Person"

1.7 IDENTIFICATION OF ALL APPLICABLE LONG RANGE DEVELOPMENT PLAN AND PROPOSED PLAN ENVIRONMENTAL IMPACT REPORTS AND ADDRESS WHERE A COPY IS AVAILABLE FOR PUBLIC INSPECTION DURING BUSINESS HOURS

UCSF Long Range Development Plan (LRDP), available at
https://campusplanning.ucsf.edu/sites/campusplanning.ucsf.edu/files/reports/FullLRDP_0.pdf

Draft UCSF Mount Sutro Open Space Reserve Vegetation Management Plan, available at
https://www.ucsf.edu/cgr/cgr-projects/mount-sutro-open-space-reserve

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2 PLAN LOCATION AND DESCRIPTION

2.1 INTRODUCTION

UCSF proposes to implement several vegetation management actions in the Mount Sutro Open Space Reserve (Reserve). The University-owned Reserve is a largely undeveloped 61-acre forest located within UCSF's Parnassus Heights campus site at the center of San Francisco (see Figures 2.1-1 and 2.1-2). The Reserve is surrounded by UCSF's hospital, research, educational and support structures to the north/northwest, and by urban residential neighborhoods to the south, east, and west. The Interior Greenbelt area, owned by the City and County of San Francisco (San Francisco), is adjacent to the east side of the Reserve. The Reserve, designated as permanent open space by The Regents of the University of California (Regents), is open to the public and serves as a point of respite and recreation not only for UCSF, but for the greater community.

The primary purposes of the proposed Vegetation Management Plan (plan) fall into four broad categories:

1. Protect the safety of Reserve users and adjacent campus and residential properties
2. Improve and enhance the health and stability of the ecosystem
3. Enhance the visual design and aesthetic experience in the Reserve
4. Maintain and ensure public access to the Reserve

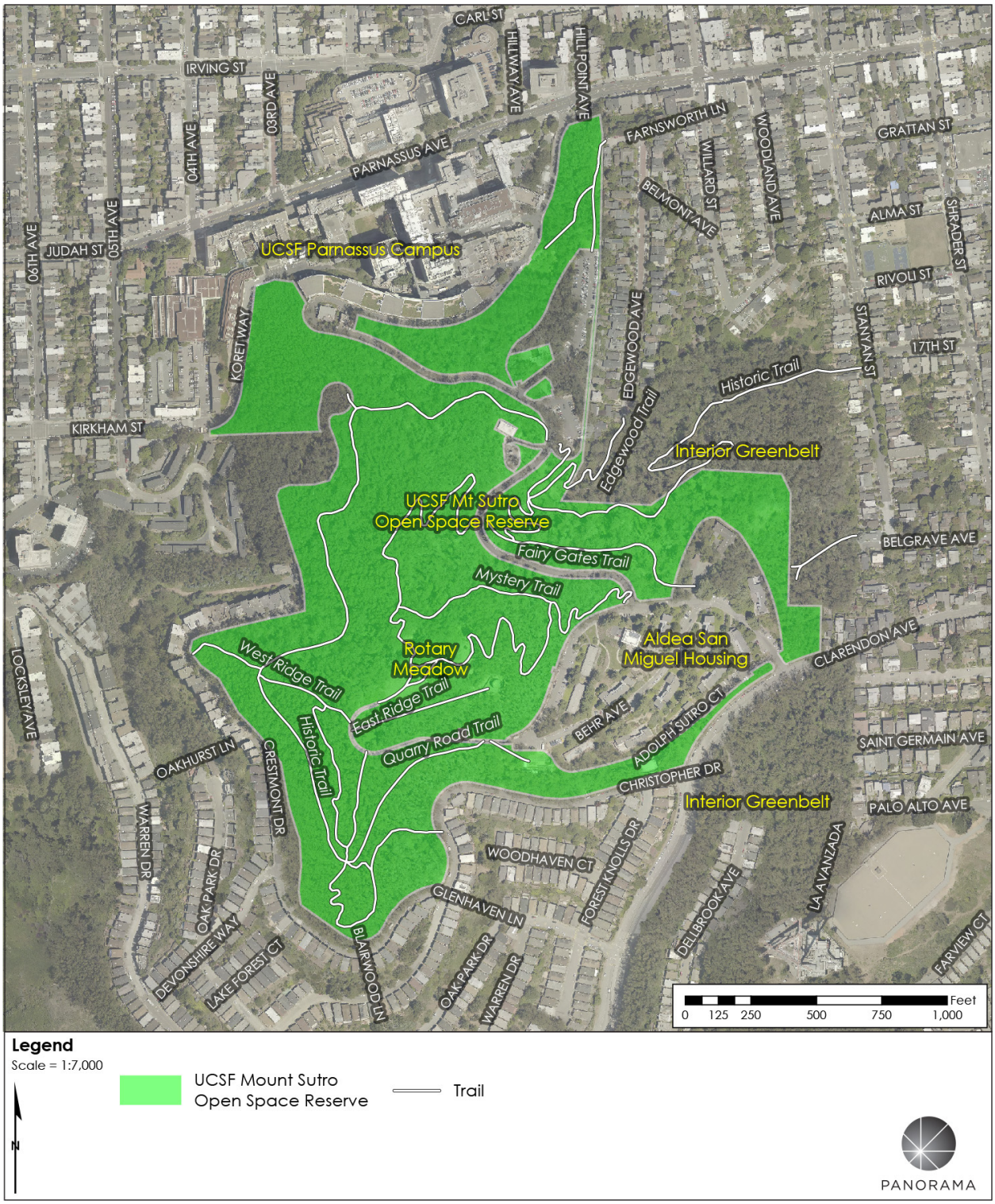
UCSF has prepared this IS in accordance with CEQA (California Public Resources Code, Sections 21000-2117) and the Guidelines for Implementation of CEQA (California Code of Regulations, Title 14, Sections 15000-15387). This IS evaluates potential environmental impacts associated with the proposed management actions across the entire 61-acre Reserve. The purposes of this IS are to:

- Identify the environmental topics that would not be affected by the plan, would be affected at a less than significant level, or would be significantly affected but the effect could be mitigated to a less than significant level; and
- Identify the environmental topics that would potentially be significantly affected.

The preliminary evaluation of environmental impacts was used to determine that the proposed plan may have a significant adverse effect on the environment that requires further analysis in an EIR. Those environmental topics for which the plan would have no impact or a less than significant impact will not be analyzed further in the EIR, based on the analysis in this IS. Potentially significant environmental impacts identified in this IS will be the focus of the EIR.

Figure 2.1-1 Location of the UCSF Mount Sutro Open Space Reserve

Figure 2.1-2 UCSF Mount Sutro Open Space Reserve



2.2 BACKGROUND

2.2.1 UCSF Parnassus Heights

The UCSF Parnassus Heights campus site is home to a network of comprehensive patient care services for adults through UCSF Medical Center, Langley Porter Psychiatric Institute and Clinics, and the UCSF Dental Center. The facilities treat both inpatients and outpatients. The UCSF research enterprise spans many locations, but the Parnassus Heights and Mission Bay campus sites are the two principal sites. Parnassus Heights is the site of several centers, institutes, and laboratories that focus on specific areas within the health sciences.

UCSF owns and manages the Reserve, which is located on the south side of the Parnassus Heights campus site. In 1976, the Regents designated the Reserve as "permanent open space to be kept free of any permanent structures or facilities except footpaths and appropriate landscape construction intended to enhance its use as a natural area." The slopes of Mount Sutro have limited development of the Parnassus Heights campus site to three main areas: the Aldea student housing complex near the summit of Mount Sutro, the Lower Campus shelf at the northern end of the site, and the Woods parcel on the hillside in the center of the site. The Reserve is covered by a dense stand of trees, except for the Rotary Meadow at the summit clearing.

2.2.2 UCSF 2014 Long Range Development Plan

UCSF's LRDP guides the University's physical development to support its mission of advancing health worldwide. The 2014 LRDP guides the University's growth through 2035 and replaces UCSF's 1996 LRDP. The 2014 LRDP was approved by the Regents in November 2014. The 2014 LRDP reflects the culmination of five years of planning, including extensive consultation both within UCSF and with UCSF's neighbors and other stakeholders.

The 2014 LRDP reaffirms UCSF's commitment to the Reserve's designation as permanent open space and its availability for public use. One of the site-specific objectives in the 2014 LRDP is to:

> "Preserve the Mount Sutro Open Space Reserve as permanent open space, and serve as the steward of the Reserve by maintaining and expanding the trail system and by ensuring the safety of visitors and neighboring structures."

Proposals included in the 2014 LRDP include continuing to manage the Reserve as permanent open space and creating new/restored trails. The LRDP also describes the vegetation management planning efforts and community process to address key issues including safety, fire hazards, and user experience.

2.2.3 History of the Reserve

In the 1800s, Mount Parnassus (later renamed Mount Sutro) was covered predominantly with coastal scrub chaparral consisting of native grasses, wildflowers, and shrubs that provided habitat for a wide variety of wildlife. Trees likely included willow and bay along streams. It is

possible that coast live oak and coast redwood were also present. In 1886, Adolph Sutro, a successful mining engineer, planted the mountain with blue gum eucalyptus, Monterey pine, Monterey cypress, and possibly fruit trees and other species. The blue gum eucalyptus were the most successful trees in adapting to the site conditions, and they soon shaded out smaller trees of other species. Over time, blue gum eucalyptus became the dominant tree species. Vine and shrubs species arose naturally or were planted and dominated the understory in many areas. Native vegetation disappeared as the eucalyptus and non-native understory became established. By the turn of the 20th century, the entire mountain was covered with blue gum eucalyptus trees, and it became commonly known as Sutro Forest.

The vegetation in the Reserve is currently neither healthy nor diverse. Over 25 percent of the blue gum eucalyptus are dead and many of the remaining trees are dying or are structurally unsound. Too many blue gum eucalyptus trees are in the Reserve to support a sustained healthy canopy. The health of the blue gums has declined over time, and small blue gums are not being recruited into the canopy due in part to the dense understory of non-native vines. The last several years of drought, forest pathogens infestation, and the age of the stand have all contributed to the decline in health of the remaining trees.

The forest will not recover on its own. The existing eucalyptus will likely die and other types of trees and vegetation will take over due to the current dense understory. The data show a continuing trend of declining eucalyptus tree health (see the Draft Vegetation Management Plan, January 20, 2017). Recent years have seen below-average rain, which may continue, and forest pathogens are extensive. UCSF has concluded that the only path to healthy, diverse vegetation involves active management and silvicultural[1] treatment.

2.3 PROPOSED PLAN

2.3.1 Overview of Plan

The purpose of the plan is to provide a management framework for protecting, enhancing, and restoring vegetation in the Reserve. UCSF staff worked with consultants and a Technical Advisory Committee (TAC) to develop the plan, including holding four public meetings with the TAC.

To achieve a healthy and stable ecosystem, the plan outlines strategies for increasing the biodiversity of vegetation, conserving existing native vegetation, improving the regeneration and recruitment of tall tree species, managing insect and disease pressure on blue gum

[1] Silviculture is the "art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society such as wildlife habitat, timber, water resources, restoration, and recreation on a sustainable basis" (USFS 2017). Silvicultural treatments are designed to enhance growth and quality of a forest while promoting forest regeneration.

eucalyptus, and improving structural diversity. In accordance with UCSF's already established risk-reduction program, the plan outlines the goal of protecting the safety of Reserve users and adjacent structures with vegetation management to reduce the risk of both tree failure and fire. Along trails, vegetation management would be implemented to clear sight lines.

The plan also seeks to enhance the visual design and aesthetics of the Reserve by establishing a mosaic of trees, shrubs and ground cover of different types, with gaps in the canopy that create patterns of sun and shade and offer views of the ocean and Golden Gate Park, and protect users from the wind. The desired outcome is to maintain a "forest" experience. UCSF provides for public access into the Reserve through a system of multi-use trails, built and maintained in partnership with the non-profit Sutro Stewards. New trails have been and will be developed as identified in the LRDP and analyzed in the LRDP EIR; the vegetation management plan proposes only to maintain vegetation around trails.

The draft plan is available at https://www.ucsf.edu/cgr/cgr-projects/mount-sutro-open-space-reserve and serves as the description of the plan upon which this IS is based. This IS also includes any relevant mitigation from the UCSF LRDP EIR (2014), as discussed in Section 2.4, which is a certified EIR that also covers the Reserve and any actions taken in the Reserve.

2.3.2 Existing Forest Conditions

Following a comprehensive inventory of the Reserve, the Reserve was divided into four forest types as shown in **Error! Reference source not found.** and **Error! Reference source not found.**. These forest types were determined based on similar characteristics with respect to tree species composition, health, and density. The Reserve contains approximately 10,000 live and 3,500 dead trees, based on the size of each forest type and the density of trees per acre. Blue gum eucalyptus is the dominant tree species but was not found to be regenerating in sufficient numbers to provide for canopy replacement.

Figure 2.3-1 Forest Type Map Created from 2016 Forest Inventory

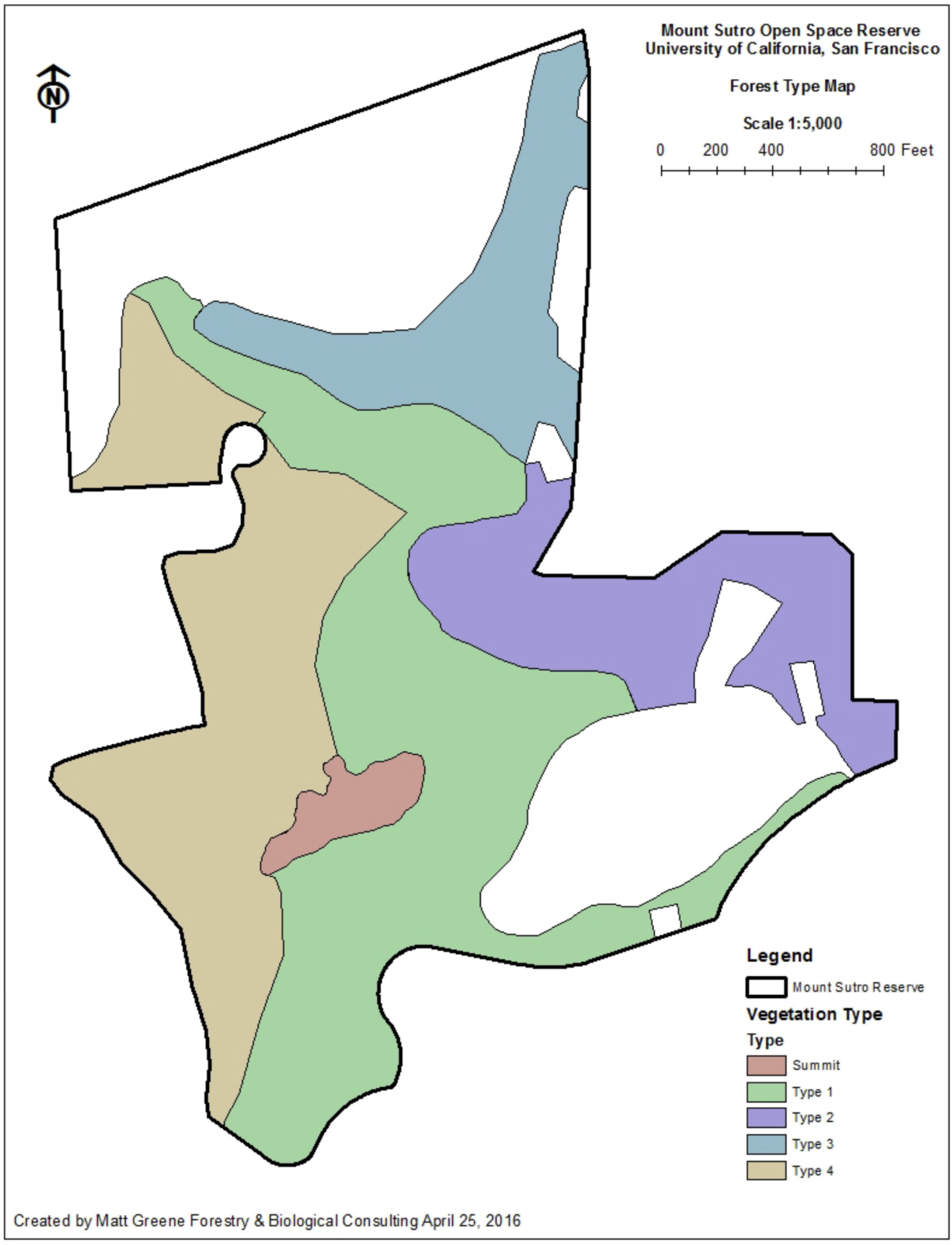


Table 2.3-1 Forest Types in the Reserve

Forest Type	Size (acres)	Trees per acre		Live Crown Ratio [a] (percent)	Tree Species	
		Live	Standing Dead		Dominant	Secondary
1	24	270	100	≤ 20	Blue gum eucalyptus, blackwood acacia	Monterey cypress, Monterey pine, coast redwood, plum, cherry, California bay, coast live oak, willow
2	9	45	10	≤ 20	Blue gum eucalyptus, Monterey cypress	Monterey pine, blackwood acacia, coast redwood, willow
3	8	110	10	20 to 30	Blue gum eucalyptus, blackwood acacia	Willow, plum
4	18	50	50	≥ 40	Blue gum eucalyptus	Monterey cypress, cherry, coast live oak, willow

Note:

[a] Live crown ratio is the ratio of the size of the live crown (i.e., the part of the tree with green leaves) to its total height. Live crown ratio is used to estimate tree health and level of competition with neighboring trees (dominant, codominant, etc.). A live crown ratio of 30 percent or below is considered poor; trees with a live crown ratio of 30 percent or below often respond poorly to release (i.e., removal of surrounding competing trees).

2.3.3 Plan Actions and Phasing

Desired Future Conditions

The plan identifies a series of forest treatments and management actions to meet its goals. The desired future conditions of the Reserve include:

- A restored eucalyptus canopy
- Healthy, diverse vegetation
- Uneven stand of trees (i.e., trees of many ages) that follows an inverse J-shaped curve of ideal tree size distribution
- Two to three snags (standing dead trees) per acre
- Control of invasive understory vegetation
- Additional native plant restoration areas

The plan continues the University's existing programs of tree risk assessment and hazard tree removal, creation and management of defensible space, maintaining trail access, and conservation and stewardship of native plants.

Treatments by Forest Types and Phases

Given the current conditions of each of the forest types, the following treatments are recommended in the plan:

- **Forest Type 1.** This forest type is currently too dense to sustain the number of existing trees. Dead, dying, unhealthy, and structurally unsound trees should be

removed and new trees should be planted to replace dead and dying trees to achieve a final density of between 75 and 100 trees per acre.

- **Forest Type 2.** No small diameter trees are present in this forest type; insufficient regeneration is occurring to sustain the forest canopy. A second age class should be established to maintain between 50 and 75 trees per acre. A long-term goal is to establish new age classes every 10 to 15 years.
- **Forest Type 3.** Most trees have low live crown ratios (i.e., only a small portion of the canopy is alive). Dead, dying, unhealthy, and structurally unsound trees should be removed and trees should be planted to replace dead and dying trees to achieve a final density of between 75 and 100 trees per acre. A long-term goal is to establish new age classes every 10 to 15 years.
- **Forest Type 4.** This forest type is currently in the best condition; drought stress is mitigated by summer fog. Dead and dying trees should be removed, and new trees should be planted to sustain between 80 and 100 trees per acre.

The plan identifies three phases during which management activities would be implemented to treat the forest. Forest treatments are summarized in Table 2.3-2. Seed tree[2], group selection[3], and individual tree selection[4] treatments would be used to thin the forest and promote regeneration. Forest treatments involving dead and dying tree removal would be most intensive in Phase I to reduce safety hazards within the Reserve and to promote regeneration of the forest as quickly as possible. Phase I seed tree and ground selection treatment areas are shown on Figure 2.3-2. Treatment types implemented in Phase I would continue in Phases II and III in different areas, and seed tree and group selection treatments would occur across the Reserve. Because it is difficult to predict how the conditions of the forest would change over the life of the plan, particularly in response to climate change, the forest treatments are defined to be adaptive and responsive to the changing forest conditions. The plan recommends updating the forest inventory prior to starting treatments during Phase III to ensure that forest treatments are appropriate for the future forest conditions.

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[2] Seed tree treatments involve the removal of dead, dying, unhealthy, and structurally unsound trees in areas between 0.5 and 5 acres. Healthy trees are retained to restock the forest.

[3] Group selection treatments involve the removal of dead, dying, unhealthy, and structurally unsound trees in clusters so that forest gaps (i.e., openings in the canopy) of various shapes and sizes are created to promote revegetation. Group selection treatments also promote the growth of remaining trees by increasing available light and moisture.

[4] In individual tree selection, individual trees are removed to promote the growth of remaining trees, reduce the number of dead trees, and provide space for regeneration.

Figure 2.3-2 Phase I Forest Treatment Areas

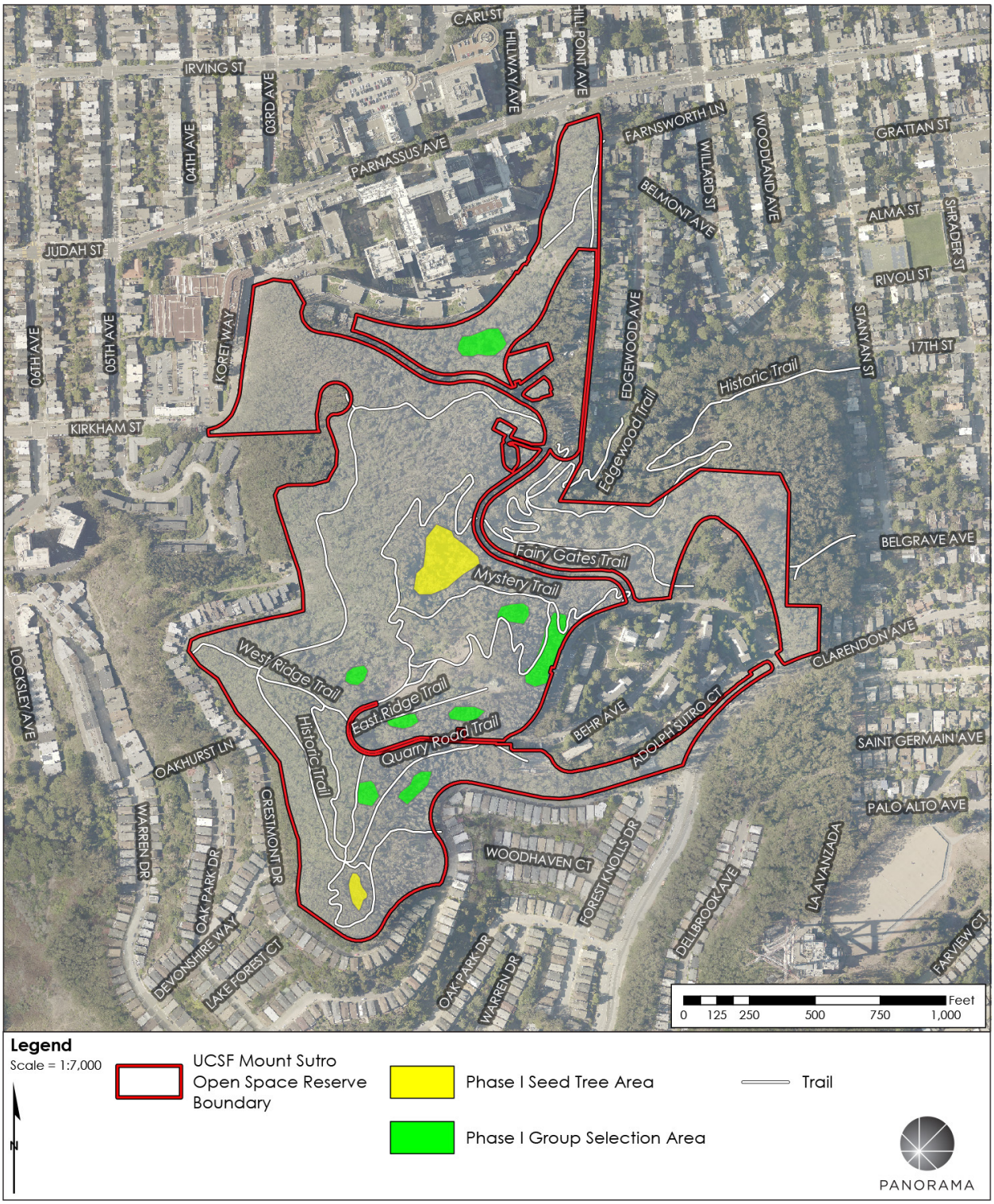

Table 2.3-2 Forest Treatments by Phase

Treatment Phase	Treatment
Phase 1 *Initial 5 years* *Focuses on managing risk of hazard trees and initiating forest treatments*	• Establish two seed tree treatment areas (1.5 acres in total) and eight group selection treatment areas (2.5 acres in total) in Forest Type 1 to remove dead and dying trees (shown in Figure 2.3-2) • Plant blue gum eucalyptus across Forest Types 1, 2, and 3 with an approximately 20-foot by 20-foot spacing • Manage tree risk by removing individual dead and dying structurally unsound trees in all four forest types • Control low-growing vines and shrubs that compete with native plants in all four forest types • Continue conservation and enhancement of native plants, and expand native plant conservation from 2 to 5 acres • Remove and/or trim trees to maintain defensible space between buildings and Reserve vegetation • Remove and/or trim vegetation along trails to maintain trails and public access
Phase 2 *6 to 10 years* *Focuses on forest restoration and regeneration*	• Remove dead and dying trees across Forest Types 1, 3, and 4 • Establish group selection or seed tree treatments in areas of low tree density in all four forest types • Plant blue gum and other species of eucalyptus in Forest Types 1, 2, and 3 with an approximately 20-foot by 20-foot spacing • Continue treatments started in Phase 1 (manage tree risk, plant natives, maintain defensive space, maintain trails) in all forest types
Phase 3 *11+ years* *Focuses on diversifying forest canopy and establishing new generation of trees*	• Update forest inventory prior to starting treatments • Continue removing dead and dying trees in all four forest types • Treat with a mix of individual tree selection, group selection, and seed tree treatments in all forest types • Continue treatments started in Phase 1 (manage tree risk, plant natives, maintain defensive space, maintain trails) in all forest types

Methods to Implement Forest Treatments

Vegetation Management Methods

Vegetation would be managed to:

- Remove dead, dying, unhealthy and structurally unsound trees,
- Control low-growing vines and shrubs that would compete with desired vegetation,
- Prevent sprouts from decayed eucalyptus stumps (these sprouts would also contain decay), and
- Plant new trees.

Work would be completed using manual and mechanical methods only. No herbicides would be used. Equipment used to implement the treatments would include, but would not be limited to, hand saws, pole saws, chainsaws, D-6 tractors or similar, excavators, backhoes, loaders, masticators, feller bunchers, pick-up trucks, skidders, forwarders, water trucks, log trucks, chip vans, chippers, tub grinders, stump grinders, and cranes.

Typically, up to three crews of up to five workers each would implement the vegetation management activities, including tree removal. They would operate up to two pieces of larger equipment per crew. Work would occur from August through the start of the rainy season, which could be anytime from early October through the end of January.

Access, Staging, and Water Usage
Temporary access roads would be established in the Reserve to facilitate management activities. Access road creation may require tree removal and surface grading or excavation. Existing trails and access may need to be widened by approximately three to four feet to accommodate equipment. Temporary trail closures and detours following a Trails Closure Plan would also be established for the safety of recreational users in the Reserve while vegetation management activities occur.

Staging areas (also called landing areas) for storage of felled trees, equipment, and other materials to be removed off-site would need to be established in the Reserve. Felled trees would be removed either by chipping the trees and dispersing the chipped vegetation materials on site or bucking and transporting the logs or chips to a disposal facility in log or chip trucks. These trucks would transport materials to an appropriate facility, located outside of San Francisco.

The plan currently does not include irrigation in the initial years of forest treatment. The goal is to establish new trees by planting just prior to the wet season so that irrigation is not needed. If planting and restoration efforts were unsuccessful, some form of irrigation may be used and will be identified in the EIR.

2.4 MITIGATION MEASURES FROM 2014 LRDP RELEVANT TO THE PLAN

An EIR was prepared for the 2014 LRDP which was certified by the Regents in November 2014 (State Clearinghouse Number 2013092047). The EIR identified the environmental impacts of the implementation of the LRDP, including any envisioned plans or activities that could occur across the UCSF campus sites. UCSF is bound to implement these mitigation measures where relevant to the work that it undertakes on its campus sites. Several of the measures are relevant to the plan for the Reserve. These measures are identified throughout Section 5 of this IS, with the text of the measures included here. Note that only the relevant parts of the measures are shown.

Mitigation Measure AIR-LRDP-1: Best Management Practices for Controlling Particulate Emissions. The following BAAQMD[5] Best Management Practices for particulate control will be required for all construction activities. These measures will reduce particulate emissions

[5] Bay Area Air Quality Management District, CEQA Air Quality Guidelines, Table 8-1, 2012.

primarily during soil movement, grading and demolition activities but also during vehicle and equipment movement on unpaved plan sites.

1. All exposed surfaces *that are under construction* (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. [Not relevant]
6. 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, § 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. 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.
8. Post a publically visible sign with the telephone number and person to contact at UCSF regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's telephone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AIR-LRDP-3: Off-Road Equipment Control Measures for NOx. All off-road equipment greater than 25 hp and operating for more than 20 total hours over the duration of construction activities shall have engines that meet or exceed U.S. EPA Tier 3 off-road emission standards.

Mitigation Measure BIO-PH-1a: Preconstruction Surveys for Monarch Butterfly Winter Roosts and Avoidance. Prior to demolition activities, a qualified biologist familiar with monarch butterfly aggregating behavior and habitat shall conduct a preconstruction survey for the presence of overwintering monarch butterfly aggregations. The survey shall be conducted in December or January during the period when overwintering aggregations appear. Should an overwintering aggregation be identified in trees adjacent to individual proposal sites within the Reserve, a 200-foot buffer shall be established around the occupied trees until the aggregation has dispersed.

Mitigation Measure BIO-PH-1b: Preconstruction Breeding Bird Surveys and Nest Avoidance. Should construction activities associated with the new retaining wall, new trails, demolition of buildings, relocation, expansion, and replacement of the medical gas and diesel fuel tank storage, and construction of the new hospital addition within the Parnassus Heights campus

site, commence during breeding bird season (February 15 – August 15) annually, UCSF shall retain a qualified biologist to conduct preconstruction nesting bird surveys in surrounding habitat for nesting birds. Specific measures to avoid and minimize impacts on nesting birds include, but are not limited to, those described below.

- To avoid and minimize potential impacts on nesting raptors and other birds, preconstruction surveys shall be performed not more than two weeks prior to initiating vegetation removal and/or construction and demolition activities during the breeding season (i.e., February 15 through August 15).
- To avoid and minimize potential impacts on nesting raptors and other birds, a no-disturbance buffer zone shall be established around active nests during the breeding season until the young have fledged and are self-sufficient, when no further mitigation would be required. Typically, the size of individual buffers ranges from a minimum of 250 feet for raptors to a minimum of 50 feet for other birds but can be adjusted based on an evaluation of the site by a qualified biologist in cooperation with the USFWS and/or CDFW.
- Birds that establish nests after construction starts are assumed to be habituated to and tolerant of the indirect adverse impacts resulting from construction noise and human activity. However, direct take of nests, eggs, and nestlings is still prohibited and an appropriate buffer must be established around the nest according to species and proximity to plan activities in order to avoid nest abandonment or destruction.
- If construction or demolition activities ceases for a period of more than two weeks, or vegetation removal is required after a period of more than two weeks has elapsed from the preconstruction surveys, then new nesting bird surveys must be conducted.

Mitigation Measure BIO-PH-1c: Avoidance and Minimization Measures for Special-Status Bats. A qualified wildlife biologist shall conduct preconstruction special-status bat surveys of suitable roost sites in the vicinity of construction and demolition sites that abut the forest of Mount Sutro Open Space Reserve. If active day or night roosts are found, the wildlife biologist shall take actions to make such roosts unsuitable habitat before construction and demolition activities begin. A no-disturbance buffer of 100 feet shall be created around active bat roosts being used for maternity or hibernation purposes. Bat roosts that are established during active construction or demolition are presumed to be unaffected by these activities, and no buffer would be necessary.

Mitigation Measure BIO-PH-1d: Preconstruction Surveys for Special-Status Plants and Plant Avoidance. Prior to construction activities, a qualified botanist shall conduct preconstruction surveys for special-status plants, coastal triquetrella and San Francisco gumplant, within the footprints of and in suitable habitat adjacent to locations of the new retaining wall, new trail alignments, and any access routes and staging areas to be used in support of these plans. Surveys for coastal triquetrella can be conducted at any time of the year however surveys for San Francisco gumplant shall occur in the summer (June – September). Should special-status

plant species be found during surveys, occurrences shall be marked in the field for avoidance during construction.

Mitigation Measure BIO-PH-1e: Relocation of Special-Status Plants. If special-status plants are located within the retaining wall or new trails footprint and cannot be avoided, then a rare plant salvage and relocation plan shall be developed to relocate individuals to suitable habitat within the Reserve. A qualified botanist shall develop and implement the plan according to CDFW guidelines and in coordination with CDFW. At a minimum, the plan shall include collection of reproductive structures from affected plants, a full description of microhabitat conditions necessary for each affected species, seed germination requirements, restoration techniques for temporarily disturbed occurrences, assessments of potential transplant and enhancement sites, success and performance criteria, and monitoring programs, as well as measures to ensure long-term population viability. The mitigation methods shall include either salvage and transplantation or collection and propagation of seeds or other vegetative material. Any plant relocation shall be done under the supervision of a qualified restoration botanist.

Mitigation Measure CUL-LRDP-3. Should an archaeological artifact be discovered during plan construction and excavation, pursuant to CEQA Guidelines 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" shall be instituted. In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 100 feet of the resources shall be halted and UCSF shall consult with a qualified archaeologist or paleontologist to assess the significance of the find (per Public Resource Code Section 5024.1, Title 14 CCR, Section 4852 and/or Public Resource Code 21083.2 in the event of a unique archaeological find). If any find is determined to be significant and will be adversely affected by the plan, representatives of UCSF and the qualified archaeologist and/or paleontologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation (per CEQA Guidelines 15064.5 (b) and Public Resource Code 21083.2). All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and documented by the qualified archaeologist according to current professional standards (per the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR44716)).

Mitigation Measure CUL-LRDP-4. If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, all ground disturbing activities within 50 feet of the find shall be halted until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate salvage measures in consultation with UCSF and in conformance with Society of Vertebrate Paleontology Guidelines (SVP, 1995; SVP, 1996).

Mitigation Measure CUL-LRDP-5. If the discovery includes human remains, CEQA Guidelines 15064.5 (e)(1) shall be followed:

> In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

(1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

(A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

(B) If the coroner determines the remains to be Native American: (1) the coroner shall contact the Native American Heritage Commission within 24 hours. (2) The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American. (3) The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or

(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

(A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.

(B) The descendant identified fails to make a recommendation; or

(C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

Mitigation Measure GHG-LRDP-1: Construction-Related GHG Reduction Measures. The following BAAQMD-suggested measures shall be implemented during demolition and construction activities:

- Use alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment where feasible;
- [Not relevant]

Mitigation Measure HAZ-LRDP-1. An Excavation Management Plan shall be prepared by a qualified consultant to include the California Air Resource Board (CARB) Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations to minimize naturally occurring asbestos through the application of best management practices for fugitive dust from construction, grading and excavation operations. Unless site specific testing by a certified laboratory can demonstrate the absence of encountering naturally occurring asbestos, construction specifications shall include implementation of this CARB ATCM.

Mitigation Measure NOI-LRDP-1a: Construction Noise Control Measures. UCSF contractors shall employ site-specific noise attenuation measures during construction to reduce the generation of construction noise. These measures shall be included in a Noise Control Plan that shall be submitted for review and approval by UCSF to ensure that construction noise is consistent with the standards set forth in the City's Noise Ordinance. Measures specified in the Noise Control Plan and implemented during plan construction shall include, at a minimum, the following noise control strategies:

- Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds.
- Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 a-weighted decibels (dBA). External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used where feasible.
- Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or include other measures.

Mitigation Measure NOI-LRDP-1b: Construction Hours. Construction hours are restricted to the hours listed in the table below. In rare circumstances, work may need to occur outside of these work hour limits. In such cases, UCSF Community and Government Relations will receive advance notice from the plan manager, at least one week in advance as feasible, and will engage the community to identify measures to minimize potential impacts.

Days of the Week	Construction Hours			
	"Not Noisy" Work[a]		Noisy Work	
	Regular Hours	**Extended Hours**	**Regular Hours**	**Extended Hours**
Monday – Friday	7:00 am to 5:00 pm	5:00 pm to 8:00 pm	8:00 am to 5:00 pm	N/A
Saturday	N/A	8:00 am to 5:00 pm	N/A	9:00 am to 4:00 pm
Sunday	N/A	8:00 am to 5:00 pm	N/A	N/A

Notes:

[b] "Not Noisy" work = 80 decibels or less at 100 feet; "Noisy" work = more than 80 decibels at 100 feet.

[c] Extended hours to be considered by UCSF Community and Government Relations with advance notice from the plan manager.

Mitigation Measure TRAF-LRDP-1: Construction Coordination and Monitoring Measures. ***Traffic Control Plan for Construction*** –In order to reduce potential conflicts between

construction activities and pedestrians, transit and autos during construction activities at the four campus sites, UCSF shall require construction contractor(s) to prepare a traffic control plan for major phases of plan construction (e.g. demolition, construction, or renovation of individual buildings). UCSF and its construction contractor(s) will meet with relevant City agencies to coordinate feasible measures to reduce traffic congestion, including temporary transit stop relocations (e.g. Parnassus Avenue (Parnassus Heights), Sutter Street (Mount Zion), etc.) and other measures to reduce potential traffic and transit disruption and pedestrian circulation effects during major phases of construction of the 2014 LRDP Plans. For any work within the public right-of-way, the contractor would be required to comply with the City of San Francisco's Regulations for Working in San Francisco Streets (the Blue Book), which establish rules and permit requirements so that construction activities can be done safely and with the least possible interference with pedestrians, bicyclists, transit, and vehicular traffic[6]. In addition to the regulations in the Blue Book, UCSF shall require the construction contractor(s) to comply with all state and federal codes, rules and regulations.

In the event that the construction timeframes of the major phases and other development plans adjacent to UCSF overlap, UCSF shall coordinate with City Agencies through the Transportation Advisory Staff Committee (TASC) and the adjacent developers to minimize the severity of any disruption to adjacent land uses and transportation facilities from overlapping construction transportation impacts. UCSF, in conjunction with the adjacent developer, shall propose a construction traffic control plan that includes measures to reduce potential construction traffic conflicts, such as staggering start and end times, coordinated material drop offs, collective worker parking and transit to job site and other measures.

Reduce SOV Mode Share for Construction Workers – In order to minimize parking demand and vehicle trips associated with construction workers, UCSF shall require the construction contractor to include in the Traffic Control Plan for Construction methods to encourage walking, bicycling, carpooling and transit access to the campus sites by construction workers in the coordinated plan.

Plan Construction Updates for Adjacent Residents and Businesses – In order to minimize construction impacts on access for nearby residences, institutions and businesses, UCSF shall provide nearby residences and adjacent businesses with regularly-updated information regarding plan construction, including construction activities, peak construction vehicle activities (e.g., concrete pours), travel lane closures, and lane closures via a newsletter and/or website.

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[6] The SFMTA Blue Book, 8th Edition (2012), is available online through SFMTA (sfmta.com).

2.5 DISCRETIONARY APPROVALS

- Action by the University: Upon certification of the EIR, the University will consider whether to approve the proposed management actions.
- Action by Other Agencies: There are no responsible agencies that have approval authority over the proposed plan. Trustee agencies include the California Department of Fish and Wildlife.

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3 ENVIRONMENTAL IMPACTS CHECKLIST

The environmental factors checked below could potentially be affected by implementation of the plan:

☒ Aesthetics	☒ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural and Tribal Cultural Resources	☒ Geology and Soils
☒ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials	☒ Hydrology and Water Quality
☐ Land Use and Planning	☐ Mineral Resources	☒ Noise
☐ Population and Housing	☒ Public Services	☒ Recreation
☒ Transportation and Traffic	☒ Utilities and Service Systems	☒ Mandatory Findings of Significance

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4 ENVIRONMENTAL DETERMINATION

On the basis of this initial evaluation:

I find that the proposed plan COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the proposed plan could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the plan have been made by or agreed to by the plan proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. ☐

I find that the proposed plan MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☒

I find that the proposed plan MAY have a "potentially significant impact" or "potentially significant impact unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

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

02/06/2017

Diane Wong
Environmental Coordinator
UCSF Campus Planning

Date

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5 EVALUATION OF ENVIRONMENTAL IMPACTS

5.1 IMPACT CATEGORIES

During the completion of the environmental evaluation presented in this IS, the following categories of impact noted as column headings in the IS checklist were relied upon:

A. "Potentially Significant Impact" is appropriate if there is substantial evidence that the plan's effect may be significant. If there are one or more "Potentially Significant Impacts" a EIR will be prepared.
B. "Less Than Significant with Mitigation" applies where the incorporation of LRDP EIR or plan-specific mitigation measures will reduce an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." All mitigation measures must be described, including a brief explanation of how the measures reduce the effect to a less than significant level.
C. "Less Than Significant Impact" applies where the plan will not result in any significant effects. The plan impact is less than significant without the incorporation of mitigation.
D. "No Impact" applies where a plan would not result in any impact in the category or the category does not apply. "No Impact" answers need to be adequately supported by the information sources cited, which show that the impact does not apply to plans like the one involved (e.g., the plan falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on plan-specific factors as well as general standards (e.g., the plan will not expose sensitive receptors to pollutants, based on a plan specific screening analysis).

The impact questions identified in this Section are the same as those in Appendix G of the CEQA Guidelines. Additionally, in several impact topics there are impact questions that relate to significance standards established in UCSF's LRDP Final EIR, where they are not otherwise covered by Appendix G.

The impact questions consist of two types: those that require a qualitative evaluation and those that require a quantitative analysis. The impact questions themselves constitute the standards of significance. Where applicable, additional explanation and/or quantitative thresholds are provided under the appropriate environmental topic.

5.2 SUMMARY OF FOCUSED EIR CONTENT

Table 5.2-1 summarizes the resources and topics that are currently anticipated to be addressed in the EIR based on the impact assessment provided in Section 5.3 of this IS. Topics may be adjusted based on agency and public feedback on this IS during the public scoping period.

Table 5.2-1 Anticipated Content of the EIR

Resources	Included in the EIR?	Impact/Topic to be Addressed in the EIR or Rationale for Focusing out Topic from EIR
Aesthetics	Yes	• Substantial adverse effect on a scenic vista • Substantially degrade the visual character or quality of the plan site and its surroundings • Substantially reduce sunlight or significantly increase shadow in open spaces areas, or increase pedestrian level wind speeds above the hazard level set forth in the San Francisco Planning Code
Agriculture and Forestry Resources	Yes	• Result in the loss of forest land or conversion of forest land to non-forest use? • Involve other changes in the existing environment that, due to their location or nature, could result in conversion of forest land to non-forest use
Air Quality	Yes	• Conflict with an applicable air quality plan • Violate an air quality standard or contribute to an existing or planned air quality violation • Result in a cumulatively considerable net increase of any criteria pollutant for which the plan region is in nonattainment under an applicable federal or state ambient air quality standard • Expose sensitive receptors to substantial pollutant concentrations • Exceed the applicable LRDP EIR standard of significance by exposing receptors to toxic air contaminant emissions that (1) result in a cancer risk greater than 10 cancer cases per 1 million people exposed in a lifetime; or (2) for acute or chronic effects, result in concentrations of toxic air contaminant emissions with a Hazard Index of 1.0 or greater
Biological Resources	Yes	• Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service • Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service • Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites • Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

Resources	Included in the EIR?	Impact/Topic to be Addressed in the EIR or Rationale for Focusing out Topic from EIR
Cultural Resources, Tribal Cultural, and Paleontological Resources	Yes	• Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 • Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5 • Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074
Geology and Soils	Yes	• Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides • Result in substantial soil erosion or the loss of topsoil • Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse
Greenhouse Gases	Yes	• Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment • Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of greenhouse gases
Hazards and Hazardous Materials	Yes	• Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials • Release of hazardous materials as a result of upset or accident conditions • Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands
Hydrology and Water Quality	Yes	• Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site • Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site • Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
Land Use and Planning	No	The proposed plan would not involve a change in use or create an incompatibility with existing land uses.
Mineral Resources	No	No mineral resources occur in the plan area.

Resources	Included in the EIR?	Impact/Topic to be Addressed in the EIR or Rationale for Focusing out Topic from EIR
Noise	Yes	• Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies • Result in a substantial permanent increase in ambient noise levels in the plan vicinity above levels existing without the plan • Result in a substantial temporary or periodic increase in ambient noise levels in the plan vicinity above levels existing without the plan • Exceed an applicable LRDP EIR standard of significance by contributing to an increase in average daily noise levels (Ldn) of 3 dB(A) or more at property lines, if ambient noise levels in areas adjacent to proposed development already exceed local noise levels set forth in local general plans or ordinances for such areas based on their use
Population and Housing	No	The plan does not include the addition of homes, businesses, or the infrastructure needed to induce population growth. The plan would not require construction of new homes, remove homes, or displace any homes or people.
Public Services	Yes	• Result in impacts associated with acceptable service ratios, response times, or other performance objectives for fire protection, police protection, and parks
Recreation	Yes	• Cause or accelerate substantial physical deterioration of existing neighborhood or regional parks • Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment
Traffic and Transportation	Yes	• Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) • Result in inadequate emergency access • Exceed the applicable LRDP EIR standard of significance by causing substantial conflict among autos, bicyclists, pedestrians, and transit vehicles
Utilities and Service Systems	Yes	• Have sufficient water supplies available to serve the plan from existing entitlements and resources, or are new or expanded entitlements needed
Mandatory Findings of Significance	Yes	• Cumulative Impacts

5.3 IMPACT ANALYSIS

5.3.1 Aesthetics

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐
B) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway or designated scenic roadway?	☐	☐	☐	☒
C) Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
D) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
E) Exceed the LRDP EIR significance standard by substantially reducing sunlight or significantly increasing shadows in public open space areas, or by increasing pedestrian-level wind speeds above the hazard level set forth in the San Francisco Planning Code?	☒	☐	☐	☐

A) Would the plan have a substantial adverse effect on a scenic vista?

The Reserve is visible from several public vantage points in San Francisco, such as from Twin Peaks, where the Reserve is one component of the scenic vistas from these pubic vantage points. The plan would include implementing vegetation management activities, such as the removal of dead and dying trees, that may affect the appearance of the Reserve as viewed from public vistas or other public areas. The Reserve would continue to be an open space and forested hill that would contrast against the surrounding man-made urban environment. The visual appearance of the Reserve from those vistas, however, could significantly change due to treatment activities and at least temporary reduction in forest density. The EIR will address the degree and significance of the visual change as viewed from public vantage points outside of the Reserve.

Implementation of the plan would also include the creation of openings in existing forest cover that would create public views/scenic vistas from within the Reserve looking outward toward other parts of San Francisco and beyond, including potentially the ocean, the Farallon Islands, and the Golden Gate bridge. Creation of these vistas would represent a visual change compared

with the current forest experience. This visual change and its potential significance will also be addressed in the EIR.

Conclusion: Implementation of the plan could have a potentially significant impact on scenic vistas. This topic will be addressed in the EIR.

B) Would the plan substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway or designated scenic roadway?

Nearby designated state scenic highways include Interstate 280 (I-280) and State Route 35 (SR-35). The nearest segment of I-280 is approximately 2 miles south of the plan site; the closest segment of SR-35 ends at 19th Avenue and Sloat Boulevard, over 1.5 miles south of the Reserve. The Reserve is not prominently visible from I-280 or SR-35; intervening topography, vegetation, and buildings obstruct or obscure views of the Reserve from these highways. Therefore, no impact would occur.

Conclusion: Implementation of the plan would have no impact on scenic resources within a state scenic highway. Effects on scenic highways will not be evaluated further in the EIR.

C) Would the plan substantially degrade the existing visual character or quality of the site and its surroundings?

Vegetation management activities, including forest treatments, removing dead and dying trees, initiating restoration plans, and constructing access roads and staging areas for maintenance activities could affect the appearance of the Reserve when viewed from adjacent properties and roadways and from within the Reserve. Tree removal, understory clearing, new plantings, and work on existing and new trails could change the appearance and the density of the forest as it currently stands. Changes to the visual quality of the Reserve as a forest could occur, which could be considered a potentially significant impact. An evaluation of the plan's short- and long-term impacts on visual quality within the Reserve will be addressed in the EIR using standard visual assessment methodologies and visual simulations.

Conclusion: Implementation of the plan could result in potentially significant impacts on the visual character and quality of the site and its surrounding. This topic will be addressed in the EIR.

D) Would the plan create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Implementation of the plan would not include the use of substantial or permanent lighting. Most management activities would occur during daytime hours and, therefore, would not create a new source of substantial light or glare that could adversely affect day or nighttime views in the area.

The plan includes several activities that include the removal of dead, dying, unhealthy, and structurally unsound trees, removal of thick non-native understory that prohibits new growth such as ivy, and establishment of new age classes of eucalyptus in different forest types over

time. This work would result in additional light passing through the forest, creating light gaps for new trees to grow. Additional light within the forest would not adversely affect daytime views; however, it could change the character of the forest. The change in visual character will be addressed in the EIR under topics C and E.

Work would also include the management of trees within proximity to streets, driveways, buildings, parking lots, and trails. Tree removal would be limited to individual hazard trees and would not cause an increase in light that could impact day or nighttime views. The nighttime sky is generally difficult to see across all of San Francisco due to light pollution from the dense development across the city. Impacts would be less than significant.

Conclusion: Implementation of the plan would have less than significant impacts associated with light or glare. Effects from light and glare will not be evaluated further in the EIR.

E) Would the plan exceed the LRDP EIR significance standard by substantially reducing sunlight or significantly increasing shadows in public open space areas, or by increasing pedestrian-level wind speeds above the hazard level set forth in the San Francisco Planning Code?

The plan would involve implementing several vegetation management activities that could change and generally reduce the density of the trees and understory in the forest at least in the short-term to enable greater sunlight exposure for newly planted young trees within the Reserve. Once the forest is established, its overall density of canopy cover may be greater. However, to maintain a healthy forest, gaps in the canopy must be established to allow sunlight to reach sprouts so that different age classes of eucalyptus can grow. Shadow patterns are affected by canopy density (i.e., live crown ratios) and the size and number of trees in the forest. Shadows within the Reserve could decrease in some areas as a result of tree removal and reduced tree density (such as in Forest Type 1) and increase in other areas as a result of new tree development and a general increase in tree density (such as in Forest Type 2). Sunlight and shadow changes within the Reserve could be significant.

The proposed activities generally would not change shadows on surrounding areas because management activities would not change the overall location and nature of the Reserve as a forest. Tree work would not significantly alter shadows in public or open space areas outside of the Reserve. The nearest open space area to the Reserve is the Interior Greenbelt, operated by the San Francisco Recreation and Parks Department. The Interior Greenbelt is a similar forest to the Reserve. Management of trees in the Reserve would not change shadows in the Interior Greenbelt because new structures or new forested areas that could cast shadows would not be created. Sunlight and shadow impacts would be less than significant on areas outside the Reserve.

The pedestrian-level wind speed hazard criterion set forth in the San Francisco Planning Code applies to new buildings generally 100 feet in height or taller in certain zoning districts and as such would not apply as a significance standard to the plan. Proposed vegetation management activities are not expected to create hazardous winds. Winds in San Francisco predominantly come from the west and northwest. Increases in wind speeds may occur when winds are intercepted by a large plane, such as a dense stand of trees, and are redirected. A permeable

stand of trees may be more effective in functioning as a wind break than a dense stand of trees. Wind speeds could increase temporarily in forest openings as trees are removed. Over time, as existing tree canopies expand and new trees grow, wind speeds would tend to be reduced. The proposed plan would not expose persons or adjacent properties to substantially increased wind speeds in the long-term; impacts from increased wind within the Reserve would be less than significant.

Removal of dead and dying trees may result in increased exposure to existing winds at the edges of the Reserve and within forest openings created in the Reserve. The increased winds at the edge of the forest and within forest openings can result in turbulence and potential windthrow hazard (i.e., the uprooting of trees). The windthrow hazard resulting from removal of dead and dying trees is potentially significant. Additional study and review will be undertaken and presented in the EIR to assess the significance of potential windthrow hazard impacts.

Conclusion: Implementation of the plan could have a potentially significant impact associated with reduction of sunlight in the Reserve and windthrow. These topics will be addressed in the EIR.

5.3.2 Agriculture and Forestry Resources

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒
B) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
C) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined in Government Code section 51104 (g))?	☐	☐	☐	☒
D) Result in the loss of forest land or conversion of forest land to non-forest use?	☒	☐	☐	☐
E) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use?	☒	☐	☐	☐

A) Would the plan convert Prime Farmland, Unique Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

B) Would the plan conflict with existing zoning for agricultural use or a Williamson Act contract?

The Reserve does not contain any lands zoned for agricultural use. Therefore, no impact on agricultural lands would occur.

Conclusion: Implementation of the plan would have no impact on agricultural resources. Effects on agricultural resources will not be evaluated further in the EIR.

C) Would the plan conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined in Government Code section 51104 (g))?

California Public Resource Code § 12220 defines forest land as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources including biodiversity, water quality, and recreation. The Reserve does not currently support 10 percent native tree cover. While it does not meet the definition of a forest by the Public Resources Code, it is considered a non-native forest in the 2014 LRDP for UCSF.

Conclusion: Implementation of the plan would have no impact on the zoning or use of forest land or timberland and this topic will not be evaluated further in the EIR.

D) Would the plan result in the loss of forest land or conversion of forest land to non-forest use?

The plan supports a commitment to maintaining the Reserve as a eucalyptus forest; however, the plan is adaptive and may include the increase in native species over time, especially around natural drainages. The plan would involve changes to the forest. The potential significance of these changes will be addressed in the EIR.

Conclusion: Implementation of the plan could alter the forest and these changes could be significant. Changes in forest land will be addressed in the EIR.

E) Would the plan involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use?

The Reserve does not contain any agricultural uses. No impact on agricultural uses would occur. As described under item D), the plan is adaptive and could result in changes in the forest. The potential significance of these changes will be addressed in the EIR.

Conclusion: Implementation of the plan could alter the forest and these changes could be significant. Changes in forest land will be addressed in the EIR.

5.3.3 Air Quality

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
B) Violate any air quality standard or contribute substantially to an existing or planned air quality violation (e.g., induce mobile source carbon monoxide (CO) emissions that would cause a violation of the CO ambient air quality standard)?	☒	☐	☐	☐
C) Result in a cumulatively considerable net increase of any criteria pollutant for which the plan region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
D) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
E) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
F) Exceed the applicable LRDP EIR standard of significance by exposing receptors to toxic air contaminant emissions that (1) result in a cancer risk greater than 10 cancer cases per 1 million people exposed in a lifetime; or (2) for acute or chronic effects, result in concentrations of toxic air contaminant emissions with a Hazard Index of 1.0 or greater?	☒	☐	☐	☐

A) Would the plan conflict with or obstruct implementation of the applicable air quality plan?

B) Would the plan violate any air quality standard or contribute substantially to an existing or planned air quality violation?

C) Would the plan result in a cumulatively considerable net increase of any criteria pollutant for which the plan region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

D) Would the plan expose sensitive receptors to substantial pollutant concentrations?

and

F) Would the plan exceed the applicable LRDP EIR standard of significance by exposing receptors to toxic air contaminant emissions that (1) result in a cancer risk greater than 10 cancer cases per 1 million people exposed in a lifetime; or (2) for acute or chronic effects, result in concentrations of toxic air contaminant emissions with a Hazard Index of 1.0 or greater?

The Reserve is located within the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB is

in non-attainment of state and federal standards for ozone and is in non-attainment of the state standards for particulate matter less than 10 microns in diameter (PM_{10}) and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$).

BAAQMD sets emissions thresholds for several criteria pollutants, including ozone precursors and particulate matter. Plans that do not result in emissions of air pollutants that exceed the thresholds are not considered to have a significant impact on air quality and would also be consistent with air quality plans for the region.

Implementation of vegetation management activities would result in emissions of air pollutants. Heavy equipment used for vegetation management activities would emit criteria pollutants and could cause temporary air quality impacts on sensitive receptors. Mitigation from the LRDP EIR, including *Mitigation Measure AIR-LRDP-1 Best Management Practices for Controlling Particulate Emissions* and *Mitigation Measure AIR-LRDP-3 Off-Road Equipment Control Measures for NOx*, as well as the BAAQMD basic construction measures would be implemented during implementation of the plan. The mitigation from the LRDP EIR requires several measures to reduce airborne particulate matter such as watering exposed surfaces, covering haul trucks, cleaning track-out, minimizing vehicles speeds, reducing idling times, posting a number for dust complaints, and using United States Environmental Protection Agency Tier 3 off-road emission standards. Impacts on air quality could be still be significant. Additional modeling is required to adequately determine whether plan activities would exceed criteria pollutant levels or contribute to existing air quality violations. The air quality modeling and analysis will be presented in the EIR.

BAAQMD also recommends the implementation of applicable ATCMs for all construction. UCSF implements these measures on all plans, where applicable. The EIR will include the quantification and analysis of cancer risks from toxic air contaminants given the implementation of these measures.

Conclusion: Implementation of the plan could result in potentially significant impacts on air quality and from emissions of toxic air contaminants. These topics will be addressed in the EIR.

E) Would the plan create objectionable odors affecting a substantial number of people?

Odorous substances are regulated under BAAQMD Regulation 7. This regulation prohibits the emission of odorous chemical compounds that remain odorous after dilution with a specified quantity of odor-free air. Chipping of wood materials could result in a menthol odor in the surrounding area. Menthol odors are naturally occurring compounds that are not regulated by BAAQMD and are not classified as objectionable odors. Management activities would emit limited odors from the use of heavy equipment; however, odors emitted by management activities would not exceed limits set in this regulation. The plan would have a less than significant impact from the creation of objectionable odors.

Conclusion: Implementation of the plan would have less than significant impacts related to odors. Effects from odors will not be evaluated further in the EIR.

5.3.4 Biological Resources

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☒	☐	☐	☐
B) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☒	☐	☐	☐
C) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
D) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐	☐
E) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☒	☐	☐	☐
F) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
G) Exceed the applicable LRDP EIR standard of significance by damaging or removing heritage or landmark trees or native oak trees of a diameter specified in a local ordinance?	☐	☐	☐	☒

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

A limited number of special-status plant and animal species could be present in the Reserve, including San Francisco gumplant (*Grindelia hirsutula* var. *maritima*), coastal triquetrella (*Triquetrella californica*), monarch butterfly (*Danaus plexippus*), western red bat (*Lasiurus*

blossevillii) and olive-sided flycatcher (*Contopus cooperi)*, based on surveys conducted in 2011 (LSA 2011). Tree removal and other management activities could have potentially significant impacts on these species through direct impacts from equipment usage and indirect impacts from habitat alteration. Additional surveys to update potential habitat and species that could occur in the Reserve will be undertaken. Analysis of impacts on these species will be presented in the EIR.

Conclusion: Implementation of the plan could result in potentially significant impacts on special status plant and animal species. This topic will be addressed in the EIR.

B) Would the plan have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

No riparian habitat or other sensitive natural communities are currently present in the Reserve; however, the plan includes restoration activities to introduce native plants in drainages and thus could create new riparian habitat that could be impacted by future and ongoing maintenance activities. An intermittent stream known as Woodland Creek, on the eastern side of the Reserve, may be subject to California Department of Fish and Wildlife (CDFW) jurisdiction under Section 1602 of the California Fish and Game Code.

Restoration or vegetation management activities within CDFW jurisdiction below the top of bank, were it to occur, would be limited to possible removal of vegetation and planting of new vegetation. Although an LSAA may be required for such activities, the proposed plan is not expected to have a substantial adverse effect on Woodland Creek and would result in long-term benefits associated with increased wildlife habitat and native plant diversity through native plant riparian restoration.

Short-term impacts associated with construction-related disturbance could cause sedimentation of Woodland Creek, which would be considered a potentially significant impact. Mitigation to control stormwater runoff during implementation of plan activities could reduce these impacts but would need to be addressed in the EIR.

Conclusion: Implementation of the plan could have impacts on Woodland Creek and riparian habitat. Effects will be evaluated in the EIR.

C) Would the plan have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No wetlands potentially subject to the U.S. Army Corps of Engineers (ACOE) and/or Regional Water Quality Control Board jurisdiction have been previously identified (LSA 2011). The steep topography over most of the site prevents the establishment of ponded depressions, seasonal wetlands, or other features that retain water long enough to support hydric soils and hydrophytic vegetation. The channel of Woodland Creek may be subject to ACOE jurisdiction.

The plan would not include the discharge of any fill material into the jurisdictional channel of Woodland Creek. A Section 404 permit would not be required, and impacts on federally protected wetlands would be less than significant.

Conclusion: Implementation of the plan would have no impact on federally protected wetlands or waters of the U.S. Effects on wetlands and waters of the U.S. will not be evaluated further in the EIR.

D) Would the plan interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The Reserve does not constitute a wildlife corridor because it does not facilitate wildlife movement through the urban landscape of San Francisco. While it provides habitat for many urban-adapted wildlife species, it is isolated from other patches or areas of similar habitat in San Francisco due to dense development in the intervening urban spaces. Migratory species, however, such as birds and bats, likely utilize the Reserve as habitat. Management activities that involve tree removal, planting, and understory alteration could have potentially significant impacts on bats and avian species. The impacts on migration of birds and bats will be addressed in the EIR.

Conclusion: Implementation of the plan could result in potentially significant impacts on migratory species. This topic will be addressed in the EIR.

E) Would the plan conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Pursuant to the University of California's constitutional autonomy, development and uses on property owned or leased by the University that are in furtherance of the University's educational purposes are not subject to local land use regulation, including City of San Francisco General Plan policies regarding the protection of biological resources. Although UCSF is not subject to City policies and regulations, UCSF strives to be consistent with City standards, where feasible.

The City of San Francisco maintains an Urban Forestry Ordinance (DPW Code Article 16) that protects various types of trees on private land, including:

- **Landmark Trees.** UCSF has no landmark trees on its Parnassus Heights campus site, including the Reserve.
- **Significant Trees.** Defined as trees within 10 feet of a public right-of-way that are taller than 20 feet, with a canopy greater than 15 feet, or with a trunk diameter greater than 12 inches at breast height. Requirements for the removal of significant trees do not apply if the trees are deemed hazard trees, defined as any tree that poses an imminent hazard to person or property after maintenance activities such as pruning or the replacement of dead or damaged trees have occurred. A tree may be hazardous if it or any part of it (1) appears dead, dangerous, or likely to fall, even after proper maintenance activities are performed to eliminate dead or

dangerous parts, (2) obstructs or damages a street, sidewalk, or other existing structure, (3) harbors a serious disease or infestation threatening the health of other trees, (4) interferes with vehicular or pedestrian traffic, or (5) poses any other significant hazard or potential hazard. Individual trees meeting these criteria may be removed as part of the proposed plan.

- **Street Trees.** No street trees would be removed as part of this plan.

Removal of significant trees, per the ordinance, typically requires a permit and public review. The overall intention of the ordinance is to protect urban forests and important trees that provide shade, habitat, and aesthetic value to the City of San Francisco's residents, among other goals. Implementation of the plan focuses on the removal of dead, dying, unhealthy, and structurally unsound trees; however, to manage the vegetation to establish a healthy forest, other trees would likely need to be removed. Final tree densities to maintain a healthy forest would be less than current densities in Forest Types 1 and 3; final densities for Forest Types 2 and 4 would be greater than current densities. Impacts from the removal of trees, some of which may meet City definitions of Significant Trees, could be potentially significant. The EIR will address the types and numbers of trees that may be removed and the significance of the associated impacts.

Conclusion: Implementation of the plan could conflict with local policies or ordinances related to tree removal. Effects from conflicts with local plans or ordinance will be evaluated in the EIR.

F) Would the plan conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No federally protected wetlands are located in the Reserve. No adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other applicable habitat conservation plans exist that are applicable to the plan. No impact would occur.

Conclusion: Implementation of the plan would not conflict with adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other plans. Effects from conflicts with plans to protect biological resources will not be evaluated further in the EIR.

G) Would the plan exceed the applicable LRDP EIR standard of significance by damaging or removing heritage or landmark trees or native oak trees of a diameter specified in a local ordinance?

The site does not contain any heritage or landmark trees or native oak trees of a diameter specified in any San Francisco ordinance. The Urban Forestry Ordinance does not specify protection of native oaks. No impact on heritage or landmark trees would occur. Removal of other trees that could be considered Significant Trees by the City and County of San Francisco are addressed under impact E.

Conclusion: Implementation of the plan would have no impact on heritage or landmark trees or native oak trees of a diameter specified in a local ordinance. Effects on protected trees will not be evaluated further in the EIR.

5.3.5 Cultural and Tribal Cultural Resources

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5?	☒	☐	☐	☐
B) Cause a substantial adverse change in the significance of a historic resource pursuant to Section 15064.5?	☒	☐	☐	☐
C) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐
D) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
E) Cause a substantial adverse change in the significance of a tribal cultural resource as defines in Public Resources Code 21074?	☒	☐	☐	☐

A) Would the plan cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

and

B) Would the plan cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?

A records search was previously conducted in 2008 that covered the entire Reserve and a 0.5-mile buffer around the Reserve. The purpose of a cultural resources records search is to discover if any previous cultural resource surveys have been conducted in the area, and if significant historical or archaeological resources that were eligible for listing in the California Register of Historic Resources (CRHR) were found during the surveys. The records search conducted in 2008 identified that no previous studies had been conducted in the Reserve (prior to 2008) (URS, Inc. 2008). Holman and Associates (1998) studied a rock shelter near the Chancellor's Residence that was purportedly used by Ishi, the last survivor of the Native American Yahi tribe who resided in the Anthropology Museum of the University of California Affiliated Colleges (now UCSF) on Parnassus Heights in the early 1900s. The study found that the site was not a historic resource per §15064.5. This study did not appear in the records search but was provided by UCSF staff.

Since the Reserve has not been surveyed for historical and archaeological resources, the sensitivity for finding significant resources during vegetation management activities is unknown. Trees proposed to be removed would be cut at ground surface, stumps would be ground, but root systems would remain in place. Road improvements including trail widening through vegetation removal, and potential grading, and new plantings could require disturbance of soils that may contain significant historical and archaeological resources. The City and County of San Francisco's Recreation and Parks Natural Areas Management Plan EIR

(2016) found that the Interior Greenbelt, located adjacent on the east side of the Reserve, has a high sensitivity for archaeological resources. The potential for encountering previously undiscovered archaeological and historical resources in the Reserve may therefore also be high. If historical or archaeological resources were discovered and damaged during implementation of the plan, a significant impact could occur. Historical resources, such as rock walls, are known in the Reserve but have never been evaluated for their significance or eligibility for listing in the CRHR. If implementation of the plan were to damage or remove these rock wall features and the features were eligible for listing in the CRHR, a significant impact could occur.

Mitigation Measure CUL-LRDP-3 from the 2014 LRDP would be applicable to the plan. This measure requires work to stop and a qualified archaeologist to assess the significance of any cultural resource (archaeological or historical) find. Additional mitigation may be required to reduce potential impacts to less than significant levels since there may be a high sensitivity for finding significant cultural resources. Additional mitigation could include surveying areas where ground disturbance may occur prior to disturbance and avoiding any resources found, known to occur (such as rock walls), or otherwise evaluating the resources and if they are significant and cannot be avoided, collecting their historical information. Impacts to historical and archaeological resources will be addressed further in the EIR.

In additional to potentially significant historical and archaeological resources that may be found in the Reserve, the Reserve itself may be considered a significant cultural landscape eligible for listing in the CRHR. The Reserve was previously evaluated for its cultural significance as a landscape in the 2013 Draft EIR. The Mount Sutro Cultural Landscape was determined to be potentially eligible for listing on the CRHR because of its association with Adolph Sutro and his development of the Sutro Forest (Criteria 2 and 3). The vegetation management activities in the plan include the removal and planting of trees across the Reserve and changing the forest density and types. This management of the Reserve could significantly impact the aspects of the Reserve that contribute to its potential eligibility for listing on the CRHR as a cultural landscape, the significance of which would need to be evaluated further in the EIR.

Conclusion: Implementation of the plan could result in potentially significant impacts on a historic resource as defined in §15064.5 or other archaeological resources. These topics will be addressed in the EIR.

C) Would the plan disturb any human remains, including those interred outside of formal cemeteries?

Implementation of the plan is unlikely to result in disturbance of previously undiscovered human remains. Human remains are not known to occur in the Reserve, and the plan activities would not include extensive excavation. Soils are also very shallow and therefore not well suited for burials. If human remains were unearthed during plan activities, the San Francisco County Coroner would be contacted, and the disposition of Native American remains would comply with CEQA Guidelines Section 15064.5(e), as required under the California Public Resources Code as well as mitigation in the LRDP EIR (ESA 2014), under *Mitigation Measure*

CUL-LRDP-5. Impacts from disturbance of any human remains would, therefore, be less than significant.

Conclusion: Implementation of the plan would have a less than significant effect on human remains. Effects on human remains will not be evaluated further in the EIR.

D) Would the plan directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

There are no known paleontological resources on Mount Sutro. While unlikely, if resources are identified during ground disturbing activities or tree removal, mitigation from the LRDP would be implemented to minimize effects. *Mitigation Measure CUL-LRDP-4* requires that work stop if paleontological resources are discovered within 50 feet of the find until it can be evaluated by a paleontologist and avoided or salvaged according to SVP Guidelines (SVP 1995, SVP 1996). Given the nature of the plan, the low likelihood for encountering paleontological resources of significance, and the implementation of *Mitigation Measure CUL-LRDP-4*, impacts on paleontological resources would be less than significant.

Rock outcroppings are found atop the hill that add to its unique character. These rock outcroppings would not be removed or altered during vegetation management activities. Therefore, no impact on unique geologic features are anticipated.

Conclusion: Implementation of the plan would have a less than significant effect on paleontological resources and no impact on unique geologic features. Effects on paleontological resources and unique geological features will not be evaluated further in the EIR.

E) Would the plan cause a substantial adverse change in the significance of a tribal cultural resource as defines in Public Resources Code 21074?

Assembly Bill 52 introduced a new category of cultural resources known as tribal cultural resources in September 2014; tribal cultural resources were therefore not defined at the time of the 2013 Draft EIR. Tribal consultation has been initiated for the proposed plan. During consultation, tribes will have the opportunity to identify potential tribal cultural resources, which would require additional analysis. Impacts on tribal cultural resources and the significance of those impacts will be evaluated in the EIR.

Conclusion: Implementation of the plan could result in potentially significant impacts on tribal cultural resources. This topic will be addressed in the EIR.

5.3.6 Geology and Soils

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground-shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☒	☐	☐	☐
B) Result in substantial soil erosion or the loss of topsoil?	☒	☐	☐	☐
C) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☒	☐	☐	☐
D) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
E) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
F) Exceed the applicable LRDP EIR standard of significance by exposing people to structural hazards in an existing building rated Poor, or Very Poor, under the University's seismic performance rating system, or substantial nonstructural hazards?	☐	☐	☐	☒

A) Would the plan expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

The San Francisco Bay Area contains both active and potentially active faults and is considered a region of high seismic activity. The nearest known active fault to the plan area is the San Andreas fault, which trends offshore north of Colma and continues northwest through the Pacific Ocean approximately six miles due west of the Golden Gate bridge. Like the entire San Francisco Bay Area, the plan site is subject to groundshaking in the event of an earthquake. However, the plan site is not within an Alquist-Priolo Special Studies zone. Proposed management activities would not affect the exposure of persons to strong seismic ground shaking or seismic-related ground failure from liquefaction because (1) the plan site is not within a liquefaction zone and (2) the removal and planting of trees and road and trail maintenance would not create any liquefaction hazards in the area. Impacts would be less than significant.

Implementation of the plan would not include the construction of homes or facilities where people would congregate and would not introduce a substantially greater number of people to the Reserve than are currently using it. Implementation of plan activities would, therefore, not expose people or structures to strong seismic ground shaking, including from being located on an active fault, seismic-related ground failure, or liquefaction. There would be no impact.

Parnassus Heights is within the City of San Francisco's Special Geologic Study Area for potential ground failure hazards and the California Geologic Survey Seismic Hazard Zone for landslides. Any activities that disturb the ground surface or remove vegetation cover or trees, particularly near trails that are adjacent to landslide areas, could result in loss of topsoil and destabilization of the soil, resulting in a landslide. Impacts on recreationalists and workers could be potentially significant. The EIR will include a detailed evaluation of the potential landslide hazards from plan implementation.

Conclusion: Implementation of the plan could expose people to substantial risk of landslides. Effects from landslides will be evaluated further in the EIR.

B) Would the plan result in substantial soil erosion or the loss of topsoil?

Bedrock occurs at or very near the ground surface throughout much of the Reserve. In general, the soils overlaying the bedrock on Mount Sutro are thin and comprised of sandy materials, which makes them prone to erosion. Proposed management activities that include the removal of dead, dying, and unhealthy trees, creation or widening of access roads, and use of equipment on steep slopes could result in substantial soil erosion and topsoil loss. Impacts from erosion and topsoil loss will be evaluated in detail in the EIR.

Conclusion: Implementation of the plan could result in potentially significant impacts from soil erosion and topsoil loss. These topics will be addressed in the EIR.

C) Would the plan be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Soils on the site are not subject to lateral spreading, subsidence, or collapse, and proposed plan activities would have no effect on these subject areas. Groundwater is not present near the surface within the Reserve, and soils are not prone to liquefaction. The management actions would not increase the risk of liquefaction within the Reserve; the soil types and depth to groundwater within the Reserve would not be affected. Soils in the Reserve are not expansive. Impacts regarding these topics would be less than significant.

As previously noted, the soils in the Reserve are thin and sandy, and the topography is steep. Any activities that disturb the ground surface or remove vegetation cover or trees, particularly near trails that are adjacent to landslide areas, could result in loss of topsoil and destabilization of the soil, resulting in a landslide. Impacts on recreationalists and workers could be potentially significant. The EIR will include a detailed evaluation of the potential landslide hazards from plan implementation.

Conclusion: Implementation of the plan could result in potentially significant impacts from landslides. This topic will be addressed in the EIR.

D) Would the plan be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

and

E) Would the plan have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

As discussed above, the plan site is not located on soils subject to lateral spreading, subsidence, liquefaction, or collapse. No septic tanks or wastewater disposal systems are proposed in the plan. Proposed plan activities would have no effect on these subject areas.

Conclusion: Implementation of the plan would have no impacts related to expansive soils or soils incapable of supporting wastewater systems. Effects from expansive soils and wastewater will not be evaluated further in the EIR.

F) Would the plan exceed the applicable LRDP EIR standard of significance by exposing people to structural hazards in an existing building rated Poor, or Very Poor, under the University's seismic performance rating system, or substantial nonstructural hazards?

The proposed vegetation management activities would not affect the exposure of persons to seismically Poor or Very Poor buildings. Hazard trees would be removed from the Reserve, effectively reducing exposure to nonstructural hazards. There would be no impact.

Conclusion: Implementation of the plan would have no impacts from structural or nonstructural hazards. Effects from structural or nonstructural hazards will not be evaluated further in the EIR.

5.3.7 Greenhouse Gas Emissions

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
B) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☒	☐	☐	☐

A) Would the plan generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Implementation of the plan would result in episodic construction-phase greenhouse gas (GHG) emissions from operation of diesel- and fuel-powered worker vehicles and heavy equipment used for vegetation management activities. The LRDP EIR includes *Mitigation Measure GHG-LRDP-1: Construction-Related GHG Reduction Measure*, which includes the use of alternative fuel (e.g., biodiesel, electric) construction vehicles where feasible. The measure would reduce some impacts, but emissions should still be quantified. Proposed management activities, such as the removal of dead, dying, unhealthy, and structurally unsound trees, may affect the ability of the forest to sequester GHGs in the short-term. However, the removal of dying and unhealthy trees would likely increase carbon sequestration in the long-term because removing unhealthy trees would reduce competition for healthy trees, and healthy trees would increase sequestration. Planting of new trees would also likely improve sequestration in the long-term by introducing new, healthy trees to sequester carbon. Impacts from GHG emissions are potentially significant. The quantification of both emissions and carbon sequestration will be addressed in the EIR.

Conclusion: Implementation of the plan could result in potentially significant impacts related to GHGs. This topic will be addressed in the EIR.

B) Would the plan conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of greenhouse gases?

UCSF published its Climate Action Plan (CAP) in December of 2009 in order to comply with the University of California Policy on Sustainable Practices as well as to meet the requirements of the American Colleges and University Presidents Climate Commitment (ACUPCC), of which the University of California system is a signatory. UCSF has prepared annual reports on its

progress every year since 2009[7]. In addition, UCSF prepared a Sustainability Action Plan in financial year 2013-2014 and a GHG reduction strategy in 2014, which updated the GHG analysis in the 2009 CAP. The GHG reduction strategy analyzes the actions proposed under the 2014 LRDP. UCSF is currently working on an update to its plans to meet the system-wide goal of carbon neutrality by 2025.

The UCSF CAP includes the UCSF GHG emissions baseline and projected emissions, sustainability efforts to-date, and future reduction efforts. The CAP informs practices throughout the campus site including procurement, building operation and design, transportation, recycling and education. Through its participation in the ACUPCC, UCSF is committed to reduce its GHG emissions from all its operations to the 1990 level by 2020 with the eventual goal of achieving carbon neutrality for the campus site by 2025 consistent with the President's Carbon Neutrality Initiative. As part of this emissions reduction effort, UCSF regularly reports to the ACUPCC its emissions, progress towards reduction goals, and measures used or proposed to meet these goals.

Other applicable University plans include the UCSF Sustainable Practices Policy and the UCSF GHG reduction strategy. The UC Sustainable Practices Policy establishes goals in nine areas of sustainable practices to address climate change: green building, clean energy, transportation, climate protection, sustainable operations, waste reduction and recycling, environmentally preferable purchasing, sustainable foodservice, and sustainable water systems. The UCSF GHG reduction strategy is implemented with the 2014 LRDP in alignment with the UC Sustainable Practices Policy directives on GHGs.

State and regional plans that govern GHG emissions include the CARB Climate Change Scoping Plan and San Francisco Climate Action Strategy. These plans include limits for GHG emissions and goals for carbon sequestration from urban forests.

Implementation of management activities would generate GHG emissions; the loss of biomass that could sequester carbon may also conflict with plans in the short-term. These impacts are potentially significant and will be investigated further through a detailed emissions model and modeling of carbon sequestration from plan implementation. The results and analysis will be presented in the EIR to evaluate potential conflicts with University, State of California, and City and County of San Francisco plans and policies for reducing GHG emissions. An evaluation of City and County of San Francisco plans and policies will be provided for informational purposes only since UCSF activities are not subject to City and County of San Francisco plans and policies.

[7] http://sustainability.ucsf.edu/what_ucsf_is_doing_2

Conclusion: Implementation of the plan could result in potentially significant impacts related to conflicts with greenhouse gas policies and plans. This topic will be addressed in the EIR.

5.3.8 Hazards and Hazardous Materials

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☒	☐	☐	☐
B) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☒	☐	☐	☐
C) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	☒	☐
D) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment?	☐	☐	☐	☒
E) For a plan located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the plan corridor?	☐	☐	☐	☒
F) For a plan located within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the plan corridor?	☐	☐	☐	☒
G) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
H) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☒	☐	☐	☐

A) Would the plan create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

and

B) Would the plan create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Herbicides would not be used during vegetation management activities. There would be no impact from herbicide use.

The use of heavy equipment for vegetation management activities could potentially lead to fuel leaks and spills of hazardous materials. The overall quantities of these materials on-site at any one time would be limited to the volume contained in construction equipment and fuel containers that may be stored at landing areas on the plan site. Given the size and nature of the equipment, the amounts could be in the hundreds of gallons. If spilled or leaking hazardous materials were not properly contained and removed from the site, the hazardous materials could contaminate the soil or groundwater and result in a potentially significant impact. A mitigation measure requiring a Spill Containment and Countermeasure Plan could mitigate these impacts and will be included in the EIR.

Naturally-occurring asbestos may be contained within the rock outcrops on Mount Sutro. The general geologic setting of San Francisco is characterized by bedrock hills bounded by broad valleys. The bedrock consists of consolidated rocks of the Franciscan Complex, which generally consists of sandstone, shale, chert, greenstone, and mélange. In certain places, serpentine, an asbestos-containing rock-type, is found within the Franciscan Complex. Vegetation removal could occur in areas underlain by the Franciscan complex; however, vegetation removal would be limited to soils above the bedrock and would not disturb the actual bedrock. Were the rock to be disturbed, potentially significant impacts could occur; however, the LRDP EIR includes mitigation (*Mitigation Measure HAZ-LRDP-1*) that would be implemented to address any proposed earthwork activities in areas of naturally-occurring asbestos. The measure requires preparation and implementation of an Excavation Management Plan that includes the CARB ATCM for Construction, Grading, Quarrying, and Surface Mining Operations. Impacts would be less than significant.

Conclusion: Implementation of the plan would have a potentially significant effect associated with the routine transport, use of, and exposure to hazardous materials and release of hazardous materials from accident conditions. This topic will be addressed in the EIR.

C) Would the plan emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

There are several schools located within one-quarter mile of the Reserve. While there may be net changes in the amount and type of hazardous materials handled, stored, and disposed of, implementation of the plan would not result in a substantive change in emissions or handling of hazardous materials, and all practices would continue to adhere to federal, state, local and UCSF policies and regulatory requirements. In general, existing hazardous materials use for maintenance activities does not involve large enough quantities of hazardous materials and

does not emit large quantities of pollutants that would represent potential health hazards to schools near the Reserve. Adherence to current regulatory requirements and UCSF policies and plans would provide sufficient control to minimize potential exposure to hazardous materials to a less than significant level.

Conclusion: Implementation of the plan would have a less than significant effect associated with emitting hazardous materials near a school. Effects from emitting hazardous materials near a school will not be evaluated further in the EIR.

D) Would the plan be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment?

A search of the Geotracker database maintained by the State Water Resources Control Board was performed for the plan site for the LRDP EIR (ESA 2014). A search of the ACOE Formerly Used Defense Sites inventory was also performed (ACOE 2013). No hazardous material sites were located within the Reserve. There would be no impact related to hazardous materials sites.

Conclusion: Implementation of the plan would have no impact from hazardous materials sites. Effects from being located on a hazardous site will not be evaluated further in the EIR.

E) Would the plan be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the plan corridor?

and

F) Would the plan be located within the vicinity of a private airstrip where it would result in a safety hazard for people residing or working in the plan corridor?

The Reserve is not part of an airport land use plan or located within the vicinity of a private airstrip. The proposed management activities would not involve the use of aircraft that could interfere with air traffic or tall structures that would be subject to Federal Aviation Administration requirements. There would be no impact from safety hazards related to air traffic.

Conclusion: Implementation of the plan would have no impacts associated with safety hazards from air traffic. Effects from safety hazards associated with air traffic will not be evaluated further in the EIR.

G) Would the plan impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Access for emergency response personnel along roadways around and within the Reserve would remain unchanged from current conditions. While heavy equipment would utilize the roadways around and within the Reserve, minimal road closures would occur during management activities. Tree removal, removal of understory vegetation, and improved trails may enhance exit routes for evacuation, and visibility and access for emergency personnel who may need to enter the Reserve in response to an emergency. The plan would therefore not conflict with an emergency response or evacuation plan. Note that emergency vehicle access is addressed under the Traffic and Transportation topic.

Conclusion: Implementation of the plan would have no impact regarding conflicts with emergency response or evacuation plans. Effects on emergency response and evacuation plans will not be evaluated further in the EIR.

H) Would the plan expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The plan would include treatments to maintain defensible space between vegetation in the Reserve and surrounding buildings. Consistent with direction from the San Francisco Fire Department and Cal Fire, within 30 feet of buildings, flammable ground vegetation (shrubs and ground cover) would be removed and lower tree branches within 10 feet of the ground would be pruned. Between 30 and 100 feet from buildings, low branches (ladder fuels) would be pruned. Removing dead, dying, and unhealthy trees, pruning branches, and removing shrubs and vines in the understory would reduce standing fuel available that could allow a fire to reach the forest canopy, improving the defensibility of the Reserve against forest fire. Immediately following management actions, there would be a short-term build-up of fuel sources at ground level from chipping dead or dying trees and spreading chips as ground cover; however, overall moisture in the Reserve would increase because (1) chips would act as an insulator to protect the soil from evaporation and maintain soil moisture, (2) the removal of dying and unhealthy trees would reduce competition for live trees to uptake water, increasing the trees' defense against fire, and (3) the removal of dead, dying, and unhealthy trees in the forest would increase the amount of open space between trees, reducing the ability of fire to spread to the canopy.

The use of heavy equipment could increase the risk of fire during vegetation management activities. Equipment could spark and start a fire. The fire risk of the use of heavy equipment will be analyzed in the EIR.

Public comments to-date have included concerns that the existing fire risks in the Reserve are overstated and the plan could increase fire risks by increasing forest dryness through the removal of understory and increased wind from vegetation thinning. Further study is needed to assess the potentially significant impact of management activities on fire risk. Modeling of existing fire risks and behavior will be performed and compared against modeling of the same risks and behavior during and after implementation of the plan to substantially support any conclusions regarding fire impacts.

Conclusion: Implementation of the plan could result in potentially significant impacts related to the spread of wildfire. This topic will be addressed in the EIR.

5.3.9 Hydrology and Water Quality

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
B) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
C) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?	☒	☐	☐	☐
D) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?	☒	☐	☐	☐
E) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☒	☐	☐	☐
F) Otherwise substantially degrade water quality?	☐	☐	☒	☐
G) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
H) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
I) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
J) Cause inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

A) Would the plan violate any water quality standards or waste discharge requirements? and

F) Would the plan otherwise substantially degrade water quality?

Implementation of the plan would not add residential or commercial structures, paved roadways or driveways, or other forms of impervious surfaces to the Reserve lands. Herbicides would not be used. Plan implementation would not increase pollutant loads from heavy metals, pesticides, or nutrients in runoff and downstream waters because these materials would not be used for the vegetation management activities. Impacts on water quality standards for heavy metals, pesticide, or nutrients would not occur.

All storm water runoff exiting the plan site would eventually enter San Francisco's combined sewer system (CSS) in route to either the Southeast Water Treatment Plant (WTP) or the Oceanside WTP. Waste discharge requirements (WDRs) adopted for these treatment plants include influent monitoring requirements and sampling protocols for 5-day biological oxygen demand (BOD5), total suspended solids (TSS) and pH. Measured constituents for TSS include soil particles, as well as sanitary sewage, dissolved solids (e.g., salts, sulfides) and other particulates. The more serious contaminants that are monitored in WTP influent, such as ammonia, oil and grease, pesticides, polychlorinated biphenyls, polycyclic aromatic hydrocarbons, and other selected inorganic and organic contaminants would not be introduced to the storm drain systems from the vegetation management activities. In the rare event of a large landslide, sediment could reach storm drains and run off into the sewer system, increasing TSS. However, the amount that could enter stormdrains would be limited to the size and number of stormdrains downstream of the slide. Given the total volume of water collected during storms at the WTPs, the amount contributed by a sediment entering the storm drains from a landslide point source would not be significant.

Implementation of the plan would not result in a violation of existing WDRs for San Francisco's WTPs. However, because the plan would include the removal of trees, widening of trails for equipment access, and chipping and spreading of chips and mulch on the ground surface where they could run off into storm drains, the San Francisco Bay Regional Water Quality Control Board could require an individual WDR for the activities. Compliance with this WDR, if it is required, would prevent a violation of water quality standards. Impacts would be less than significant.

Conclusion: Implementation of the plan would not violate waste discharge requirements and water quality standards. This topic will not be addressed further in the EIR.

B) Would the plan substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

No proven or established groundwater supplies are located within the Reserve. Implementation of the plan would not introduce any impervious surfaces or significantly reduce rainfall

infiltration rates or groundwater recharge. Thus, the plan would have no impact on groundwater supplies or groundwater recharge rates or volumes.

Conclusion: Implementation of the plan would have no impact related to groundwater. Effects to groundwater will not be evaluated further in the EIR.

C) Would the plan substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

and

D) Would the plan substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

and

E) Would the plan create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Implementation of the plan would not result in the alteration of a stream course. Only one ephemeral stream, Woodland Creek, is found within the Reserve. None of the proposed vegetation management activities would significantly alter this creek. Planting of riparian vegetation, however, could have a positive impact with regards to erosion and siltation by protecting and binding soils around the creek during periods of high water flow.

Proposed management activities could result in changes in overall surface water flow rates from the Reserve due to the reduction in understory and the density of trees that may currently slow or absorb flows. Storm water flows likely move overland, ultimately to the streets and sewer system at the base of and surrounding the Reserve. Increase in flow rates due to vegetation removal could cause off-site flooding during initial states of forest treatment. These impacts would likely be reduced over time as planted, live trees would uptake water. Additional analysis that includes a peak flow and runoff volume assessment will be undertaken to quantify impacts and to determine if impacts related to increased runoff would be significant.

Implementation of the plan is not likely to result in alterations that could cause on- or off-site flooding. Some increase in site sediment yield could occur from proposed activities; however, unless sediment conveyed in site runoff were accompanied by substantial organic debris, it is not likely that roadway flooding would be triggered by obstructed culvert inlets. A rare, large landslide could block a storm drain or culvert inlet, and could cause minor flooding in surrounding streets; however, it would be localized and temporary. More than likely, the reduction in dead and dying eucalyptus throughout the Reserve would reduce the volume of slash delivered downslope to such roadway culverts, which is likely the most common cause of culvert or storm drain obstruction. However, these potentially significant impacts will be studied further in the EIR.

Conclusion: Implementation of the plan could result in potentially significant impacts associated with changes in surface runoff that could cause erosion and sedimentation and potential flooding. These topics will be addressed in the EIR.

G) Would the plan place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

H) Place structures within a 100-year flood hazard area, which would impede or redirect flood flows?

I) Would the plan expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

and

J) Would the plan cause inundation by seiche, tsunami, or mudflow?

The Reserve is located on a low mountain (909 feet in elevation at the peak). The site is not within a 100-year flood hazard area, or near a levee or dam, and the plan does not involve building housing or structures. The site is not within an area with the potential to be inundated by seiche, tsunami, or mudflow. No impacts associated with these significance criteria would occur.

Conclusion: Implementation of the plan would have no impact associated with 100-year flood hazards, a seiche, tsunami, or mudflow. Effects from floods, seiches, tsunamis, and mudflows will not be evaluated further in the EIR.

5.3.10 Land Use and Planning

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Physically divide an established community?	☐	☐	☐	☒
B) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the plan (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
C) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
D) Exceed an applicable LRDP EIR standard of significance by being substantially incompatible with existing land uses, or by substantially conflicting use, density, height and bulk restrictions of local zoning, although UCSF is exempt from such restrictions?	☐	☐	☐	☒

A) Would the plan physically divide an established community?

The proposed vegetation management activities would take place within the existing open space Reserve and would therefore not physically divide an established community.

Conclusion: Implementation of the plan would have no impacts on established communities. Effects on established communities will not be evaluated further in the EIR.

B) Would the plan conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the plan (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed plan would not involve a change in use or create an incompatibility with existing land uses, nor would it conflict with local zoning, which does not regulate forest management.

UCSF's applicable land use plan, the 2014 LRDP, calls for maintaining the Reserve as permanent open space and investigating an appropriate maintenance and restoration program for trees and vegetation in the Reserve. It also calls for improving and increasing hiking trails in the Reserve. The plan, which seeks to maintain and enhance the Reserve through vegetation management, would be consistent with the LRDP.

Conclusion: Implementation of the plan would have no impacts from conflicts with applicable plans, policies, or regulations. Effects from conflicts with plans, policies, or regulations will not be evaluated further in the EIR.

C) Would the plan conflict with any applicable habitat conservation plan or natural community conservation plan?

The proposed plan would not conflict with any applicable habitat conservation plan or natural community conservation plan.

Conclusion: Implementation of the plan would have no impacts on habitat conservation plans or natural community conservation plans. Effects from conflicts with these types of plans will not be evaluated further in the EIR.

D) Would the plan exceed an applicable LRDP EIR standard of significance by being substantially incompatible with existing land uses, or by substantially conflicting use, density, height and bulk restrictions of local zoning, although UCSF is exempt from such restrictions?

The City of San Francisco Recreation and Parks Department has developed a Natural Areas 20-Year Management Plan that seeks to restore and enhance its collection of remnant natural open spaces, including the Interior Greenbelt Natural Area abutting the Reserve on its eastern border. Similar to the proposed plan, the Natural Areas Plan includes tree removal, trail maintenance, and native plant enhancement within the Interior Greenbelt. The actions proposed within the Interior Greenbelt include removing invasive trees, maintaining and enhancing scrub habitat, augmenting sensitive plant populations, reintroducing sensitive plants, developing new hiking trails, and enhancing the urban forest. The proposed plan is consistent with and would not conflict with the proposed actions for the Interior Greenbelt. The plan would have no impact on land use.

Conclusion: Implementation of the plan would have no impacts on land use. Effects from land use conflicts will not be evaluated further in the EIR.

5.3.11 Mineral Resources

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
B) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

A) Would the plan result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

and

B) Would the plan result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The proposed plan site is not in an area of known mineral resources and would not otherwise conflict with mineral resources recovery. No impact would occur on mineral resources.

Conclusion: Implementation of the plan would have no impact on mineral resources. Effects on mineral resources will not be evaluated further in the EIR.

5.3.12 Noise

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	☒	☐	☐	☐
B) Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
C) Result in a substantial permanent increase in ambient noise levels in the plan vicinity above levels existing without the plan?	☒	☐	☐	☐
D) Result in a substantial temporary or periodic increase in ambient noise levels in the plan vicinity above levels existing without the plan?	☒	☐	☐	☐

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
E) For a plan located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the plan corridor to excessive noise levels?	☐	☐	☐	☒
F) For a plan within the vicinity of a private airstrip, expose people residing or working in the plan corridor to excessive noise levels?	☐	☐	☐	☒
G) Exceed an applicable LRDP EIR standard of significance by contributing to an increase in average daily noise levels (Ldn) of 3 dB(A) or more at property lines, if ambient noise levels in areas adjacent to proposed development already exceed local noise levels set forth in local general plans or ordinances for such areas based on their use?	☒	☐	☐	☐

A) Would the plan expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Mechanical equipment noise would be generated by heavy equipment during vegetation management activities. Residences abut the Reserve to the east, south, and west. Hospital patients are also potential sensitive receptors. It is possible that trees and vegetation would not provide a sufficient noise buffer for residences and hospital patients, and chipping and other activities that generate considerable noise would occur near these sensitive receptors. The LRDP EIR includes mitigation to reduce impacts from "construction" equipment that could be applicable to the work under the plan. *Mitigation Measure NOI-LRDP-1a: Construction Noise Controls Measures* and *1b: Construction Hours* require using best available noise controls on equipment, not using tools that generate noise from compressed air release, locating any stationary noise as far as possible from receptors, and limiting work hours. Impacts could still be significant and therefore, an analysis of noise impacts on residents and other sensitive receptors from use of heavy equipment compared against standards will be included in the EIR.

Conclusion: Implementation of the plan could result in potentially significant impacts associated with noise generation and standards. This topic will be addressed in the EIR.

B) Would the plan expose persons to or generation of excessive groundborne vibration or groundborne noise levels?

The proposed plan would not expose persons to or generate excessive groundborne vibration or groundborne noise. Short-term groundborne vibrations may be felt from heavy equipment use; however, vibrations dissipate rapidly with distance (a few feet) and would be limited to the immediate vicinity of the activity where people would not be located for safety purposes.

Heavy ground-breaking equipment would not be used within close proximity of buildings that could be susceptible to vibration damage (e.g., historic structures). Tree falling would occur during tree removal, which could cause short-term groundborne vibrations in the immediate vicinity of felled trees. For safety reasons, no one would be allowed in areas where tree falling would occur. The impact of tree falling would not expose persons to excessive groundborne vibration. The impact would be less than significant.

Conclusion: Implementation of the plan would have a less than significant impact related to groundborne vibration. Effects from vibration will not be evaluated further in the EIR.

C) Would the plan cause a substantial permanent increase in ambient noise levels in the plan vicinity above levels existing without the plan?

and

G) Would the plan exceed an applicable LRDP EIR standard of significance by contributing to an increase in average daily noise levels (Ldn) of 3 dB(A) or more at property lines, if ambient noise levels in areas adjacent to proposed development already exceed local noise levels set forth in local general plans or ordinances for such areas based on their use?

Forests provide a barrier for noise, and the removal of vegetation from vegetation management activities could change the ability of the forest to act as a noise buffer. The Reserve occupies a large area of land. Equipment on the rooftops of the campus site buildings at Parnassus Heights generates noise that is currently shielded and reduced by topography and vegetation. The shielding of this noise could change due to changes in forest density, which could result in a significant permanent increase in noise levels in the forest. The effectiveness of the forest as a noise buffer would increase as remaining trees recover and grow and as planted trees become established and increase the canopy density of the forest; however, impacts will be assessed in the EIR.

Conclusion: Implementation of the plan could result in impacts from permanent increases in noise. Effects from permanent increases in noise will be evaluated in the EIR.

D) Would the plan cause a substantial temporary or periodic increase in ambient noise levels in the plan vicinity above levels existing without the plan?

Heavy equipment used for management activities could result in temporary increases in ambient noise levels in the plan vicinity. Chainsaws and chippers would be used to fell and mulch trees and other vegetation, causing short-term increases in noise levels during equipment operation. Noise in San Francisco is regulated by the San Francisco Noise Ordinance. Although UCSF is not bound by the San Francisco Noise Ordinance, it endeavors to comply. The Noise Ordinance states that powered construction equipment, other than impact tools, must not exceed 80 decibels at 100 feet (Article 20 of the City Police Code, Section 2907a). The Noise Ordinance also prohibits construction work at night from 8:00 pm until 7:00 am if noise from such work would exceed the ambient noise level by 5 decibels at the property line, unless a special permit is authorized by the San Francisco Department of Public Works. While proposed management activities are not "construction" activities, the noise impacts from proposed management activities would be analogous to construction noise impacts with the use of heavy equipment. Given the proximity of nearby residences and other sensitive receptors, impacts

from temporary increases in noise levels are potentially significant. Noise generation and the resultant levels at the nearest sensitive receptors will be addressed in the EIR.

Conclusion: Implementation of the plan could result in potentially significant temporary noise impacts. This topic will be addressed in the EIR.

E) For a plan located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the plan expose people residing or working in the plan area to excessive noise levels?

and

F) For a plan within the vicinity of a private airstrip, would the plan expose people residing or working in the plan area to excessive noise levels?

The Reserve is not included in an airport land use plan or located within the vicinity of a private airstrip. There would be no impact.

Conclusion: Implementation of the plan would have no impacts related to noise near an airport or airstrip. Effects on noise related to an airport or airstrip will not be evaluated further in the EIR.

5.3.13 Population and Housing

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
B) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
C) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
D) Exceed the LRDP EIR standard of significance by creating a demand for housing outside the market area where the facilities or site are located?	☐	☐	☐	☒

A) Would the plan induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

B) Would the plan displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

C) Would the plan displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

and

D) Would the plan exceed the LRDP EIR standard of significance by creating a demand for housing outside the market area where the facilities or site are located?

The plan does not include the addition of homes, businesses, or the infrastructure needed to induce population growth. Vegetation management activities do not involve the displacement or removal of existing housing, and no replacement housing would need to be built. Proposed management activities would not induce substantial population growth in the area, displace a substantial number of existing housing, displace a substantial number of people, or create a demand for housing; no impact would occur.

Conclusion: Implementation of the plan would have no impact on housing and displacement. Effects on housing and displacement will not be evaluated further in the EIR.

5.3.14 Public Services

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
(i) Fire protection?	☒	☐	☐	☐
(ii) Police protection?	☒	☐	☐	☐
(iii) Schools?	☐	☐	☐	☒
(iv) Parks?	☒	☐	☐	☐
(v) Other public facilities?	☐	☐	☐	☐

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

i) Fire protection?

ii) Police protection?

iii) Schools?

iv) Parks?

v) Other Public Facilities?

Proposed vegetation management activities would not require the construction or alteration of new public service facilities to maintain acceptable response times or service ratios. Vegetation management activities would involve felling trees that could temporarily block access roads within the Reserve. Temporary closure of these access roads could result in a potentially significant impact on response times for emergency service providers, which will be addressed in the EIR under the Traffic and Transportation analysis.

After the management activities have been implemented, access for fire or police protection personnel along roadways around and within the Reserve would remain unchanged from current conditions. Dead, dying, and unhealthy tree removal, removal of understory vegetation, and improved trails may enhance visibility and access for emergency personnel who may need to enter the Reserve in response to an emergency. There would be no long-term impact on fire or police protection services, and implementation of the plan would not require the construction of new facilities or reduce response times. Other fire hazards will be addressed in the EIR under the Hazards and Hazardous Materials analysis.

Implementation of the plan would not attract more people such that new schools would be needed and would not affect any of the buildings, including hospitals, on UCSF's Parnassus Heights campus site. There would be no impacts on school or other public facilities.

Vegetation removal activities could impact recreational use by requiring the temporary closure of trails during tree felling and chipping for safety purposes. Closures would be short-term, and trails in the rest of the Reserve would remain open. However, trail closures could occur for up to several months at a time, and multiple crews could work in different areas of the Reserve such that several trail segments would be closed, potentially displacing recreationalists due to the limited availability of trails. Impacts on performance objectives for the Reserve as a recreational facility would be potentially significant.

Conclusion: Implementation of the plan would have a potentially significant effect on emergency response services and parks. This topic will be evaluated in the Transportation and Traffic and Recreation sections of the EIR.

5.3.15 Recreation

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☒	☐	☐	☐
B) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☒	☐	☐	☐

A) Would the plan increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The plan seeks to improve the Reserve as an open space resource for UCSF and the community at large. Vegetation management activities endeavor to improve the health and visual quality of the Reserve, which could increase use of the Reserve. During vegetation management activities, tree removal, chipping, and trail maintenance could temporarily block access to some trails. Blocked trails and open forest areas could encourage recreationalists to travel off trail into revegetated areas. As discussed under Geology and Soils above, tree removal, chipping, and access road widening could cause erosion. Removal of trees and changes in the forest densities, composition, and understory may be considered a significant physical change. The impact from increased erosion and new access roads could cause physical deterioration of the Reserve. Impacts on recreational facilities could be potentially significant.

Conclusion: Implementation of the plan could have a significant effect on existing parks and recreational facilities. This topic will be addressed in the EIR.

B) Does the plan include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Vegetation would be removed from the sides of trails to maintain and improve existing trails, but no new trails are proposed as part of this plan. The Aldea trail, part of the LRDP, will be completed by the time the plan would take effect. No impact would occur from the construction or expansion of recreational facilities.

The plan would include widening of existing trails and creating new maintenance access roads for equipment. The widening of trails and creation of maintenance access roads could result in adverse physical effects on the environment associated with potential impacts on biological and/or cultural resources located along the road, and increased erosion. These impacts would be addressed in the Biological Resources, Cultural and Tribal Cultural Resources, Geology and Soils, and Hydrology and Water Quality sections of the EIR, as appropriate. The plan would not otherwise require the construction or expansion of recreational facilities.

Conclusion: Implementation of the plan would have no impacts associated with the need to construct new recreational facilities or expansion of recreational facilities. The plan includes alterations to a recreational facility, which could have an adverse physical effect on the environment. These physical effects on the environment will be addressed in the Biological Resources, Cultural and Tribal Cultural Resources, Geology and Soils, and Hydrology and Water Quality sections of the EIR.

5.3.16 Transportation and Traffic

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
B) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
C) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
D) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
E) Result in inadequate emergency access?	☒	☐	☐	☐
F) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
G) Exceed the applicable LRDP EIR standard of significance by causing substantial conflict among autos, bicyclists, pedestrians, and transit vehicles?	☒	☐	☐	☐

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

and

B) Would the plan conflict with an applicable congestion management program, including, but not limited to, level of service standard and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?

The plan would result in a minor temporary increase in traffic. Some large truck traffic would be generated from transporting felled logs and chips off the Reserve to a disposal facility. Heavy equipment vehicles would also be expected at the site to deliver trees for planting and tree/vegetation removal equipment (i.e., chainsaws, chippers, masticators). Off-site hauling would be limited, resulting in less than 12 haul trucks per day at the site for the removal of logs and chips. Up to 15 crew members may also travel to the site to work during the most active periods of vegetation management. Vehicles may access the Reserve from Medical Center Way at Parnassus Avenue and/or Johnstone Drive at Clarendon Avenue, although travel routes will be identified in the EIR Project Description. City-designated truck routes would be used. Worker parking would be accommodated on campus at either the Aldea or Surge Woods parking lots. The addition of up to 27 trucks and personal vehicles per day would not substantially increase traffic or cause conflicts with level of service standards and traffic plans. Impacts on traffic would be less than significant.

Conclusion: Implementation of the plan would have a less than significant effect associated with applicable transportation plans and policies and congestion management plans. Effects on traffic management plans will not be evaluated further in the EIR.

C) Would the plan result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

The plan does not involve the use of any aircraft. There would be no impact on air traffic patterns.

Conclusion: Implementation of the plan would have no impact on air traffic patterns. Effects on air traffic patterns will not be evaluated further in the EIR.

D) Would the plan substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

and

G) Would the plan exceed the applicable LRDP EIR standard of significance by causing substantial conflict among autos, bicyclists, pedestrians, and transit vehicles?

Trucks would haul trees, vegetation, and equipment used for felling trees and chipping vegetation. Haul trucks would need to enter and exit the Reserve along specific roads, some of which are narrow and steep and could, therefore, have potentially significant impacts on safety of motorists, pedestrians, and bicyclists. The LRDP EIR includes a measure to address traffic, but the measure is geared more towards building projects. Elements of *Mitigation Measure*

TRAF-LRDP-1: Construction Coordination and Monitoring Measures would be applicable to work conducted under the plan. However, impacts could still be significant and a more detailed traffic analysis will be prepared and presented in the EIR that addresses the designated routes of travel and the management of truck and worker access routes that would minimize vehicle, pedestrian, and bicycle conflicts in consideration of the access and parking needs of UCSF.

Conclusion: Implementation of the plan could result in potentially significant impacts from the use of heavy trucks and the associated hazards to motorists, pedestrians, public transit, and bicyclists. This topic will be addressed in the EIR.

E) Would the plan result in inadequate emergency access?

Access for fire or police protection personnel along roadways around and within the Reserve could be blocked temporarily by felled trees during implementation of vegetation management activities. Heavy equipment would utilize the roadways around and within the Reserve and could cause temporary road closures during management activities. Impacts on emergency access from temporary blocked or closed roads could be potentially significant.

Conclusion: Implementation of the plan would have a potentially significant impact on emergency access. This topic will be addressed in the EIR.

F) Would the plan conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

At present, conflicts sometimes occur on narrow trails between pedestrians, bike users, and dog walkers. The plan includes measures to widen trails to reduce user conflicts consistent with the LRDP. There are no public bus routes through the Reserve. There would be no conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, and the plan would not decrease the performance of trails in the Reserve.

Conclusion: Implementation of the plan would have no impact on alternative transit plans. Effects on alternative transit plans will not be evaluated further in the EIR.

5.3.17 Utilities and Service Systems

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
B) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
C) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
D) Have sufficient water supplies available to serve the plan from existing entitlements and resources, or are new or expanded entitlements needed?	☒	☐	☐	☐
E) Result in a determination by the wastewater treatment provider that serves or may serve the plan that it has adequate capacity to serve the plan's planned demand in addition to the provider's existing commitments?	☐	☐	☒	☐
F) Be served by a landfill with sufficient permitted capacity to accommodate the plan's solid waste disposal needs?	☐	☐	☒	☐
G) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐
H) Result in the wasteful, inefficient and unnecessary consumption of energy (see CEQA Statutes Section 21100(b)(3))?	☐	☐	☒	☐
I) Exceed the applicable LRDP EIR standard of significance by requiring or resulting in the construction of new electrical or natural gas facilities, which would cause significant environmental effects?	☐	☐	☐	☒

A) Would the plan exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

B) Would the plan require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

C) Would the plan require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

and

E) Would the plan result in a determination by the wastewater treatment provider, which serves or may serve the plan, that it has adequate capacity to serve the plan's planned demand in addition to the provider's existing commitments?

As discussed under Hydrology and Water Quality, proposed management activities could alter total volumes of flow to surrounding areas. A Peak Flow and Runoff Volume study will be

undertaken as described under Hydrology and Water Quality. While volumes may change, vegetation management activities would not increase impervious surfaces or substantially alter the topography or area of run-off. Any changes in flow would not result in exceedances of wastewater treatment requirements or the need to construct new water or wastewater treatment facilities or expand existing facilities.

All stormwater runoff exiting the plan sites would eventually enter San Francisco's CSS in route to either the Southeast Water WTP or the Oceanside WTP. WDRs adopted for these treatment plants include influent monitoring requirements and sampling protocols for BOD5, TSS, and pH. Measured constituents for TSS include soil particles, as well as sanitary sewage, dissolved solids (e.g., salts, sulfides) and other particulates. The minor increase in sediment yield predicted for the proposed tree removal and understory thinning would not have a significant impact on the turbidity or TSS of wet weather flows conveyed by the City of San Francisco CSS, which typically totals 500 million gallons mgd. The more serious contaminants that are monitored in WTP influent, such as ammonia, oil and grease, pesticides, PCBs, PAHs and other selected inorganic and organic contaminants would be absent in plan area stormwater runoff. Impacts on stormwater drainage and wastewater treatment facilities would be less than significant.

Conclusion: Implementation of the plan would have a less than significant effect on wastewater treatment and requirements, and stormwater drainage facilities. Effects on wastewater treatment and requirements, and stormwater drainage facilities will not be evaluated further in the EIR.

D) Would the plan have sufficient water supplies available to serve the plan from existing entitlements and resources, or are new or expanded entitlements needed?

Irrigation is not proposed for the initial phase of the plan but may be required if new plantings fail. The source of water would need to be determined and could have significant impacts on existing entitlements and resources or require expanded entitlements. Any sources and estimated quantities of water needed for irrigation, were it to be used in the future, will be addressed in the EIR.

Conclusion: Implementation of the plan could have a potentially significant impact on water supplies. Effects on water supplies will be evaluated f in the EIR.

F) Would the plan be served by a landfill with sufficient permitted capacity to accommodate the plan's solid waste disposal needs?

and

G) Would the plan comply with federal, state, and local statutes and regulations related to solid waste?

Large felled tree trunks would be left on site or hauled off-site, and any removed understory vegetation would be mulched and left on site as ground cover. Any greenwaste would be composted and recyclable materials would be sent to a recycling center. Any material that cannot be composted, reused, or recycled would be disposed of at a permitted landfill as required in compliance with all statutes and regulations related to solid waste and hazardous

waste. UC's goal is zero waste by 2020. Felled trees are considered green waste, which would need to be composted at an appropriate facility. All diverted greenwaste would be reported to the UCSF recycling coordinator for annual reporting as required. Impacts would be less than significant.

Conclusion: Implementation of the plan would have a less than significant effect on landfills and conflicts with statutes and regulations for solid waste. Effects on landfills and conflicts with solid waste requirements will not be evaluated further in the EIR.

H) Would the plan result in the wasteful, inefficient and unnecessary consumption of energy (see CEQA Statutes Section 21100(b)(3))?

Fuel would be used to power worker vehicles and heavy equipment; however, vehicles would only be run to transport workers, and equipment would only be run when it is in use for vegetation management activities. Fuel would not be used unnecessarily or in a wasteful or inefficient manner. Impacts from energy consumption would be less than significant.

Conclusion: Implementation of the plan would have a less than significant effect on energy use. Effects on energy use will not be evaluated further in the EIR.

I) Would the plan exceed the applicable LRDP EIR standard of significance by requiring or resulting in the construction of new electrical or natural gas facilities, which would cause significant environmental effects?

Proposed vegetation management activities would not require the construction of new electrical or natural gas facilities or new chilled water or steam generation facilities. There would be no impact.

Conclusion: Implementation of the plan would have no impacts associated with new electrical or natural gas facilities. Effects associated with new electrical or natural gas facilities will not be evaluated further in the EIR.

5.3.18 Mandatory Findings of Significance

The lead agency shall find that a plan may have a significant effect on the environment and thereby require an EIR to be prepared for the plan where there is substantial evidence, in light of the whole record, that any of the following conditions may occur. Where prior to commencement of the environmental analysis a plan proponent agrees to mitigation measures or plan modifications that would avoid any significant effect on the environment or would mitigate the significant environmental effect, a lead agency need not prepare an EIR solely because without mitigation the environmental effects would have been significant (per CEQA Guidelines Section 15065):

Would the plan:	Potentially Significant Impact	Less than Significant Impact with Mitigation	Less than Significant Impact	No Impact
A) 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
B) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a plan are significant when viewed in connection with the effects of past plans, the effects of other current plans, and the effects of past, present and probable future plans)?	☒	☐	☐	☐
C) Does the plan have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Implementation of the plan has the potential to affect habitat, wildlife, and plants. Impacts will be addressed and included in the EIR. Implementation of the plan could have impacts on cultural and historic resources that represent important examples of major periods of California history or prehistory. Impacts will be addressed in the EIR.

Several impacts from the implementation of the plan have the potential to be significant alone, and may combine with other plans to produce a significant cumulative effect. These cumulative impacts will be addressed in the EIR.

Implementation of the plan has the potential to result in hazards that could affect human beings including hazardous air quality emissions and wildfire. Impacts will be addressed in the EIR..

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