

Wildfire Mitigation Treatment Project Overview & Request for Proposal November 21st, 2025

Release Date: November 21st, 2025

Closing Date: December 19th, 2025

Project Title: Filoli Wildfire Mitigation Project

Funding: U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) Legislative Pre-Disaster Mitigation (LPDM) Grant Program

Contact Person: Ian Walsh, Natural Lands Manager, Filoli

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SUMMARY

San Mateo County/Filoli has been awarded a Legislative Pre-Disaster Mitigation (LPDM) grant from the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) for the Filoli Wildfire Mitigation Project. The grant will be administered through the California Governor's Office of Emergency Services (Cal OES) and the project will be managed by Filoli. The project aims to reduce the threat of wildfire to life and property within the wildland—urban interface (WUI). The project will reduce hazardous trees around power lines, reduce hazardous fuels within forested areas, and create defensible space around the main roadway and surrounding 17 structures on the Filoli estate. This project will require general avoidance and minimization measures (AAM) and species-specific conservation measures to avoid adverse effects on three federally listed species deemed present or likely to be present within the project area. This project is being conducted under a CEQA suspension granted by the State of California; therefore, the project must follow the Statewide Fuels Reduction Environmental Protection Plan.¹

 $^{^1\} https://wild firetask force.org/wp-content/uploads/2025/05/CA-Fuels-Reduction-Environmental-Protection-Plan.pdf$

PROPOSAL INSTRUCTIONS

A. Request for Proposals (RFP) Schedule

Release of RFP: November 21st, 2025

Mandatory Bid Walk: November 24th - December 12th

Final RFP Questions Due: December 12th

Final Question Responses Sent: December 17th

Proposal Due Date: December 19th

Notice of Intent to Award: December 26th

Contract Award: December 29th Notice to Proceed: January 2nd

B. Funder Acknowledgement

Funding for Filoli's Wildfire Mitigation Project is provided by FEMA's Legislative Pre-Disaster Mitigation (LPDM) Grant Program). The LPDM Grant Program makes federal funds available to eligible state, territory, and local governments and federally recognized tribes to implement sustainable, cost-effective measures designed to reduce the risk to individuals and property from future natural hazards while also reducing reliance on federal funding from future disasters.

C. Questions

Questions regarding the RFP shall be submitted by phone or email (650-503-2093 or iwalsh@filoli.org) to the Natural Lands Manager, with the subject: Wildfire Mitigation Project. Questions shall be received no later than 5:00 pm on December 12th.

Question responses will be sent to all identified bidders by email no later than June 20th. Responses will also address those questions posed during the mandatory bid walk. Any addenda to this RFP will be emailed to potential bidders no later than December 12th. Proposal should acknowledge receipt of addenda, if applicable, and of Filoli question responses.

D. Prep-Proposal Field Tour/Bid Walk

Filoli will conduct a mandatory pre-proposal bid walk field tours of the project area from November 24th – December 12th. Those interested in a pre-proposal field meeting will need to schedule an approximately 2-hour tour by RSVPing to Ian Walsh (<u>iwalsh@filoli.org</u>). The tour will commence in the parking lot of Filoli at 86 Cañada Road, Woodside, CA 94062.

E. Proposal Submission

Proposals shall be submitted electronically. Proposals must be submitted via email to Ian Walsh (iwalsh@filoli.org), with the subject: Wildfire Mitigation Project, by 5:00 pm on December 19th. Faxed or late proposals will not be accepted. It is the responsibility of the proposer to ensure that the proposal is received prior to the deadline date and time. Proposals received after the submission deadline will not be considered. Any changes to this RFP are invalid unless specifically modified by Filoli and issued as a separate addendum document. Should there be any question as to changes to the content of this document, Filoli's copy shall prevail.

F. Proposal Format

The proposals must be an 8 1/2" X 11" PDF or MS Word file and may be no more than a total of ten (10) pages.

NOTE: A single sheet cover letter and any attachments included in this RFP which are required to be submitted with the proposal, including cost proposal, insurance, licensing documents, and addenda acknowledgments, do NOT count toward the ten (10) page limit.

Proposals that do not furnish information organized according to the format or do not include the content specified in this RFP may be rejected.

G. Required Proposal Content

Cost Proposal: A cost proposal shall be submitted specifying cost per acre per treatment area, for each specific Treatment Area (Dundag, VEC To Corp Yard, Spring Creek, etc.).

The actual quantities (acres) required may fluctuate up or down, but the unit prices proposed by each respondent shall remain firm and shall not be negotiated. All unit prices shall include all necessary overhead and profit. Items not listed in the schedule of items, such as administrative overhead, profit, etc., shall be distributed throughout the respondent's unit prices for the items listed. The respondent must submit pricing as requested in the RFP.

Approach, Staffing, Work Plan, Schedule: Proposers shall provide an overview of the contractor's understanding of the services to be provided and their approach to the work, including but not limited to equipment to be utilized, staffing requirement expectations, and any other items that are necessary to demonstrate the contractor's proposed strategy to complete the project. The approach shall include the proposed work plan and schedule for accomplishing the work. Staff should address current capacity and the ability to recruit future workers if needed to complete the project by the contract end date.

Experience, Qualifications, and References: Proposers shall provide a general description of the contractor's experience and qualifications related to fuel reduction work of a similar scope and complexity, including LTO qualifications and qualifications to work around energized powerlines. Provide experience and/or resumes of key staff indicating the names and roles of staff and their experience of working with the specific equipment being proposed. Please indicate everyone's availability for this project and describe the specific role they would play in this project. Provide a description of two to three recent projects with a similar scope of work, such as projects within strike distances of powerlines, including contact information for the references who oversaw these projects. Photographs of other projects completed, especially photographs showing treatment areas 1-3 years post-treatment, are encouraged but not required.

Equipment: The contractor shall demonstrate in their proposal information about the types of equipment that will be used in each unit, as well as operator experience with each significant piece of equipment. Equipment will be in good working order and operated as proposed. Project proposals shall include sufficient information about equipment types (e.g., make/model, wheeled

vs. tracked, type of wheels/tracks, size, etc.) and this information will be used by the evaluation committee as part of its criteria for ranking proposals.

Insurance Certificates: Provide copies of insurance certificates reflecting the requirements summarized below:

- Workers Compensation Insurance with statutory limits (not less than \$1,000,000 per occurrence);
- General liability insurance (not less than \$2,000,000 per occurrence for personal injury and property damage).
- Business Auto Liability Insurance (not less than \$1,000,000 combined single limit for bodily injury and property damages covering all vehicles including hired cars ,owned and non-owned vehicles.

Licenses: Provide proof of California Business, Timber Operator's, Contractor's Licenses, and proof of needed licenses and experience for working around energized powerlines.

H. Evaluation Process

An evaluation committee will evaluate all proposals received for completeness and the proposer's ability to meet all specifications as outlined in this RFP. The following evaluation criteria and weight of importance shall be used in evaluating and selecting a contractor.

Evaluation Criteria Points

Cost Proposal: 60

Experience (including work around powerlines), Qualifications, and References: 20

Approach, Staffing, Work Plan, and Schedule: 20

Proof of Insurance: Y/N

Proof of California Business License, Licensed Timber Operator, and Contractor's

License: Y/N

I. Award of Contract

Filoli may reject all proposals and re-issue this RFP. Filoli may choose to award one or more contractors to service any portion of the project. Filoli may waive any minor irregularities or immaterial defects in a proposal. Filoli reserves the right to request additional written or oral information from proposers to obtain clarification on their proposals. All proposals become the property of Filoli. All costs associated with the development of the proposal in response to the RFP shall be the sole responsibility of the proposers and shall not be charged in any manner to Filoli. The contract is expected to be awarded by December 29th. Award of this first-year contract does not guarantee award of subsequent contracts nor other future work. Successful performance will be considered in future awards.

PROJECT BACKGROUND AND OBJECTIVES

A. About Filoli

Filoli is a 654-acre historic house, public garden, and nature preserve at the base of the Santa Cruz mountain range in the heart of San Mateo County. Nearly 500,000 visitors from the Bay Area and beyond come to Filoli annually to enjoy the beauty of the historic House and formal Gardens, explore hiking trails on the Natural Lands, and enjoy year-round arts, culture, and nature programming.

Filoli's 25-year Comprehensive Site Plan balances public access with protecting California's native ecosystems. To support these goals, Filoli has invested in a Natural Resources Management Plan and a Sustainability Action Plan aimed at responsible land stewardship, long-term sustainability, and enhancing visitor engagement. Filoli's robust natural lands management program includes wildfire mitigation and the management of wildlife, vegetation, and water resources.

B. Need

The area around Filoli includes forest and grassland and is prone to wildfires. The CZU Lightning Complex wildfire in 2020 is a recent example, which took place about 15 miles south of Filoli. The wildfire burned over 86,500 acres in San Mateo and Santa Cruz Counties during a 37-day period and created hazardous air quality for weeks. The CZU Lightning Complex wildfire was not a freak occurrence, but part of a larger wildfire trend throughout California.

Filoli is directly adjacent to a densely populated suburban area, with an estimated 104,000 people living within five miles. Residents throughout San Mateo County would be negatively affected by a wildfire at the site. Filoli is part of the Crystal Springs Watershed and is adjacent to the Crystal Springs Reservoir; therefore, a wildfire could impact the county not just through fire destruction, but also through mudslides and runoff. As one of the largest landowners in the county, Filoli is uniquely positioned to mitigate the wildfire risk and serve as an example of land stewardship and defensible space strategy for all urban-adjacent open spaces facing wildfire threats.

C. Project Description

Filoli will work with contractors and consultants to improve forest resiliency in four Treatment Areas over approximately 164 acres (See Map 1 Below). The project will implement hazardous fuels reduction and defensible space creation activities within the Filoli estate. These activities can be divided into four components, listed by priority (1) tree removal and trimming around power lines in forested areas/defensible space creation within 200 feet of structures, (2) defensible space creation adjacent to the Main Drive access road, and (3) hazardous fuels reduction in forested areas. The work associated with each of these components is detailed in the sections that follow.

The project takes place primarily in forested areas, targeting diseased and fallen trees and brush. Plant communities include redwood forest, mixed evergreen, foothill woodlands, and chaparral. Contractor work will fall into three main categories: 1. Clearing brush, 2. Identifying and removing diseased or fallen trees, and 3. Thinning forest, especially along powerlines and roads to reduce hazards and minimize the chance of trees falling on the powerline or blocking roads.

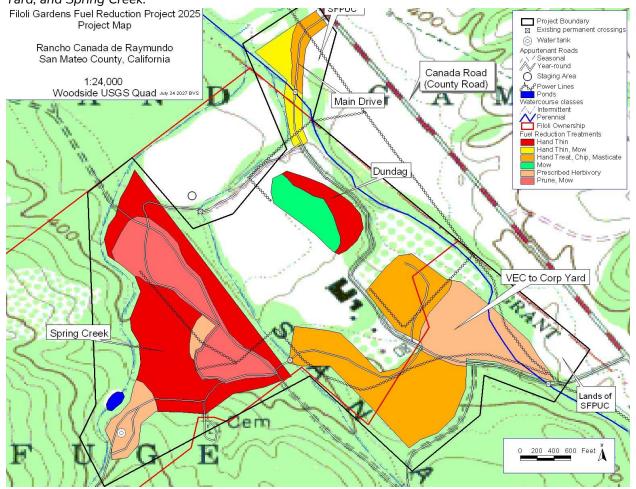
D. Treatment Types and Treatment Areas

There are four Treatment Areas, and three types of treatments. Some locations may receive more than one treatment. For example, one location may be grazed with goats, followed by either mechanical or hand treatments. Goat grazing is not included in this contract.

Table 1. Acres of Treatment, by Treatment type and Treatment Area

Treatment Area	Total Ac	Graze Ac	Hand thin Ac	Mech Ac
Dundag	14	0	10	4
Main Dr	10	0	3	7
VEC-Corp	65	10	40	25
Spring Creek	75	10	35	20

Map 1. Treatment Areas. Text box indicates Treatment Areas, which are: Main Drive, Dundag, VEC to Corp Yard, and Spring Creek.



E. Qualifications

Filoli is seeking a contractor experienced in wildfire mitigation through fuel reduction work including around energized powerlines. As this project is funded in part through FEMA, experience working on federally-funded projects in compliance with federal regulations (Title 2 CFR §200) is ideal. Contractor must be in good standing and not debarred on SAM.gov.

A Biological Assessment found two species of threatened or endangered California flora and fauna present within the project area, and there are known instances of additional threatened species nearby. Contractors must be compliant with specific avoidance and minimization measures required during project work. A California Department of Fish and Wildlife-certified biologist will be present on work days to train crews and oversee work. In addition, the Statewide Fuels Reduction Environmental Protection Plan must be followed.

SCOPE OF WORK

A. Project Areas

The project will be implemented on approximately 164 acres of the Filoli estate. The Filoli estate is a 654-acre property that includes a historic house, public garden, and nature preserve in the Town of Woodside in central San Mateo County, California. Project activities would occur within the northern and eastern portions of the Filoli Estate (see Map 1), generally located at 37.468219 degrees latitude and –122.312955 degrees longitude. The project area sits at the base of the Santa Cruz Mountain Range and can be accessed locally via Cañada Road and Edgewood Road, and regionally via Interstate 280. The project will occur on privately owned land and SFPUC owned land within the Woodside 7.5-minute U.S. Geological Survey (USGS) quadrangle.

High priority areas include: the defensible space, roadsides and powerlines along the Main Entry Drive, Visitor Center to Corporation Yard, Spring Creek Canyon, and Dundag (see Map 1). The topography of the ~165 acres includes forested areas and grassland and ranges from steep slopes along the Santa Cruz Mountain range to more gentle foothills. The House sits at 350 feet above sea level, and the western end of the site is nearly 2,000 feet above sea level. Predominant tree communities include coast live oak, mixed evergreen forest, and madrone. Brush includes poison oak and blackberries, as well as chaparral vegetation like toyon, coyote brush, and manzanita. Redwood forests are also present. Sudden Oak Death, first spotted in San Mateo County in the late 1990s, has affected vegetation at the site. Trees diseased or associated with the spread of Sudden Oak Death are a target for this project.

B. Treatments

Work includes hazardous fuels reduction and maintenance of defensible space. Contractors will likely include hand crews to complete both brush and tree work, as well as crews using heavyduty machinery to remove larger dead and dying trees. Treatment details are also conveyed by a series of maps in the Appendix. Goat grazing is not part of this contract.

General treatment descriptions are presented here. Appendix A provides maps describing treatments, and Appendix B offers Treatment Specifications.

Highest Priority: Protection of power line infrastructure in forested areas

Trees with the potential to impact the power line would be removed. Healthy trees that do not pose a risk would be retained. Hazardous trees within a distance of 1.5 times the height of the tree from the power line would be removed (e.g., a 20-foot-tall hazardous tree would be removed if it is located within 30 feet of the power line).

- Clear trees both above and below power lines from ground to sky level. Trees directly under the powerlines will be removed, within an area that can grow up into the powerlines which extends to the outermost wires. Shrubs and herbaceous plants that cannot attain the height to the powerlines will be retained. Immediately outside the route of the powerline all trees that have a potential to strike the powerline or utility poles will be removed. The trees to be removed will be determined by an RPF or arborist. Trees will be pruned to retain as many trees as possible.
- Common species affected include Bay Laurel, Oak, Douglas Fir, and Madrone.
- Treatment options include: feller buncher, hand crews with chainsaws, climbers, and bucket trucks.
- All materials, whether intact or as chips, will be taken off-site.

Highest Priority: Clearances along forested roads for emergency access

- Removal of trees along fire roads up to a breast height diameter of 8 to 10 inches, as well as the removal of dead, dying, or diseased trees; the distance from the road will be the height of the tree that might fall on the road. The trees to be removed will be determined by an RPF or arborist. Trees will be pruned to retain as many trees as possible.
- Remove ladder fuels up to 8 feet on tree trunks per Rx2 in Appendix B.
- Clear areas above roads to a height of 14 feet to accommodate emergency vehicles.
 Common species affected include Bay Laurel, Douglas Fir, Oak, Madrone, and California Buckeye.
- Treatment options include: feller buncher, hand crews with chainsaws and bladed weedcutters, or a masticator.
- All materials, whether intact or as chips, will be taken off-site. Incidental chips from mastication is acceptable.

Defensible space for structures and cultural resources

- Vegetation will be selectively cleared within 200 feet of structures per Rx1 in Appendix B.
 Each tree to be removed will be identified for removal. Shrubs under trees will be removed.
 Trees not removed will be pruned of lower branches to an 8-ft height.
- Potential treatments include hand crews with chainsaws and bladed weedcutters, the use of a feller buncher, and the use of a masticator.
- Affected tree species include Bay Laurel, Oak, Douglas Fir, and Madrone. Affected shrub species include coffee berry, coyote brush, poison oak, toyon, manzanita, and blackberries.
- All materials, whether intact or as chips, will be taken off-site. Incidental chips from mastication is acceptable

Hazardous fuel treatments

The contractor will remove trees as marked in Rx3 of Appendix B.

- Manage ladder fuels up to 8 feet on tree trunks, thin the canopy, and remove dead, dying, or diseased trees, however important large wildlife trees will be retained where possible, at a maximum of two snags per acre.
- Marking indicates removal of some trees with an average breast height diameter of 8
 inches and retention of some undisturbed to avoid limiting new growth entirely.
- Treatment options include hand crews with chainsaws and bladed weedcutters, the use of a feller buncher, the use of a masticator, and goat grazing. Hand crews will prune trees
- Affected tree species include Bay Laurel, Oak, Douglas Fir, and Madrone. Affected shrub species include coffee berry, coyote brush, poison oak, toyon, manzanita, and blackberries.
- All materials, whether intact or as chips, will be taken off-site. Incidental chips from mastication is acceptable.

C. Flagging and Monitoring

Site Managers will flag the treatment areas according to a flagging system that will be provided to the contractor prior to project initiation.

D. Waste Biomass Disposal

Woody debris (slash and chips) become the custody of the contractor. All materials, whether intact or as chips, will be taken off-site. Incidental chips from mastication is acceptable.

To minimize the volume of chips that need to be hauled away, material larger than 6 inches in diameter can be left onsite, dispersed with a maximum length 500-ft per acre. An exception to this is that all material cut from pine trees will be chipped or hauled away.

Slash from the few pines that will be felled will be chipped or scattered to receive maximum solar radiation, reduce fuel loading, and potential brood cycles or canker infestation spread. As soon is feasible, or within one week of the creation of pine slash, all branches will be chipped and hauled off.

If there is an area where material cannot be chipped due to topographic variables, safety, environmental barriers, etc., the contractor shall alert the local Site Manager, and the material will be considered for piling instead.

E. Work Sequence and Timing

The priority treatments will be completed within each Treatment Area before moving to another Treatment Area. The defensible space, roadways and powerlines are the priority treatments that will be treated first. Filoli representative will designate the movement and sequence of Treatment Areas, as appropriate.

As described previously, each proposal shall include the proposed overall work plan and schedule for accomplishing the work. Upon awarding the project to chosen contractor(s), the specific timing

of treatments in some units shall be scheduled in coordination with the project manager and/or Site Managers to minimize potential wildlife impacts. The contractor shall not be absent from the project for more than two weeks without the express permission of the project manager and/or Site Managers. If an absence is anticipated, Contractor shall notify the project manager and relevant Site Manager at least one week in advance of the anticipated absence. Absences due to weather restrictions or family emergencies are an exception to this requirement but must be coordinated with the project manager and/or Site Managers. The anticipated start date of this project (i.e., expected date of Notice to Proceed) is January 2nd, 2026. However, if fire restrictions are still in place at this time, the project start date will be postponed until after such restrictions are lifted. All project work must be completed no later than 2 years from the day on-the-ground work is started. An extension can be acquired if absolutely necessary.

Defensible space and hazardous fuel removal activities are expected to require 21 months to implement, beginning in January 2026; however, the total duration of project work would extend longer than 21 months in order to comply with seasonal work restrictions. Project work would be focused between May 1 and October 15 to reduce the potential for effects on the California redlegged frog (CRLF) and San Francisco garter snake (SFGS).

- Daily Work Hours: Activities will be limited to daylight hours during weekdays.
- Project work would be focused between May 1 and October 15 to reduce the potential for effects on the California red-legged frog (CRLF) and San Francisco garter snake (SFGS).
- Work outside May 1st October 15th will be contingent on approval of on-site biological monitor in order to reduce the risk of take for all species of concern / endangered species / migratory birds
- On-site biological monitor will have the authority to stop or redirect work to mitigate risk of take for relevant protected species.
- Timing of trees pruning will be focused outside the wet, rainy and cool times of the year to reduce risk of movement and spread of the SOD. Best practices for spread of SOD will be followed to the extent that is reasonable.

F. Communication and Coordination

The contractor shall provide one foreman that shall serve as a point of contact with the project manager. Proposals shall specify which key staff member will fill this role. The foreman will be responsible for providing weekly reports on project accomplishments to the project manager and local Site Manager (i.e., by phone call, text, or email) and will be available to respond to phone calls and/or emails from the project manager. The foreman will also be responsible for communicating project requirements to all crew members. If the Filoli project manager or a Site Manager communicates a modification to treatments or other instructions, the foreman shall pass these instructions along to all crew members within one day. The foreman will give the local Site Manager at least a 3-day notice before moving to a new treatment area.

G. Project-Specific Conditions

Filoli has been granted a suspension of CEQA for this project and therefore will follow the statewide Environmental Protection Plan, available at https://wildfiretaskforce.org/wp-content/uploads/2025/05/CA-Fuels-Reduction-Environmental-Protection-Plan.pdf. Work shall be performed or supervised by a certified or licensed responsible party such as a Registered

Professional Forester, qualified vegetation management contractor, qualified incident commander, or certified arborist. In addition, the following general avoidance and minimization measures (AMMs) will be implemented during all activities associated with the project to avoid and minimize adverse effects on biological resources, including effects on water quality in watercourses that may occur in or near the project area, and effects on listed species.

- The contractor shall prepare a Storm Water Pollution Prevention Plan. Construction projects which are greater than one acre in size are regulated by the California State Water Resources Control Board (SWRCB, the Board) via the Board's General Permit Order 2022-0057-DWQ, Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit, CGP). Contractor's stormwater consultant shall prepare a project-specific Stormwater Pollution Prevention plan (SWPPP) for approval by the Regional Water Quality Board for implementation prior to start of work.
- Dust Control Measures.
- Equipment Inspection and Maintenance.
- Materials Storage and Disposal: All work materials, wastes, debris, sediment, rubbish, trash, and fencing will be removed from the site once project work is complete and transported to an authorized disposal area, as appropriate, in compliance with applicable federal, state, and local laws and regulations.
- Fire Prevention: With the exception of vegetation-clearing equipment, no vehicles or construction equipment will be operated in tall, dry vegetation.
- Waste Management: The work area will be kept free of loose trash. All food waste will be removed from the site on a daily basis.
- Environmental Awareness Training for Construction Personnel: All construction personnel, including contractors and subcontractors, will be given environmental awareness training by the project's environmental inspector or biological monitor before the start of construction.
- Biological Monitor: A USFWS-approved biologist will be present on-site for all vegetation removal activities, and any activities that may result in take of the covered species. The USFWS-approved biologist will have the authority to stop any work activities that may result in potential adverse effects to covered species and/or their habitats.
- Invasive Non-Native Plant Species Prevention: All vehicles and equipment will be cleaned and free of mud and debris prior to entering the project area, and all erosion and other sediment controls used during and after construction will be certified weed-free, as applicable. Equipment shall be inspected before entering the project area.

The contractor shall be responsible for the following:

- The contractor shall implement all treatments in accordance with the prescriptions, as
 defined and/or modified by the project manager and/or Site Managers and following all
 flagging and marking guidelines. The contractor shall coordinate with the Site Managers to
 develop a work sequence/schedule to ensure that work will be completed prior to
 December 31st, 2027
- Should any sensitive resources, such as special-status species, active bird nest, or archaeological resource be found during project implementation, work in the affected area shall cease and the local Site Manager shall be notified immediately.
- If any wildlife is encountered during implementation, work in this direct area should cease until it is allowed to move out of harm's way of its own accord. If it cannot be allowed to

- move out of harm's way of its own accord, the local Site Manager shall be notified immediately.
- All safety rules and regulations will be followed, and all onsite are expected to adhere to rules regarding personal protective equipment.
- Contractor shall comply with all applicable federal, state, and local laws, regulations and policies governing the funds and scope under this agreement.
- Contractor will follow industry practices for fire ignition avoidance and mitigation such as referenced in the Industrial Operations Fire Prevention Field Guide at <a href="https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/prevention-field-guides/fppguidepdf102.pdf?rev=132e7e2e2e98459a8fa1bf4cf84d2431&hash=C9095A98AC7ED45CBC47E1CD2B749E24
- Work will be suspended when project area is under red flag conditions and when the SFPUC suspends work: https://www.weather.gov
- Contractor will follow Sudden Oak Death Mitigation Practices, as detailed in Appendix C.
- Leave all treated areas in an environmentally, geologically, and aesthetically sound and safe condition.

H. Equipment

Both mechanical and manual equipment would be used to implement the project.

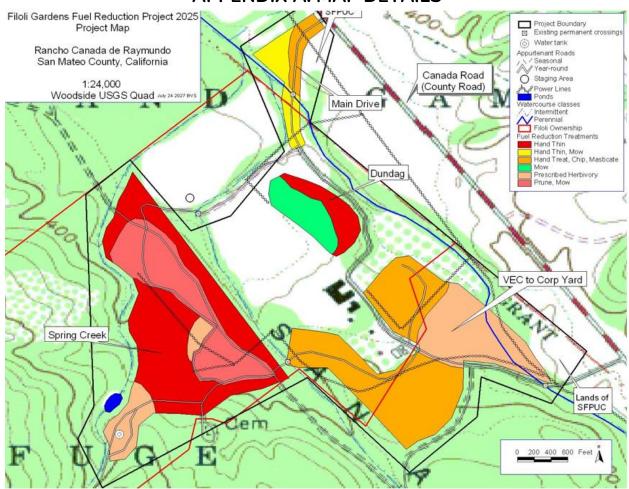
- Fueling Activities: Vehicles and equipment that are used during project implementation will be fueled and serviced in a manner that will not affect covered species or their habitats. Conduct maintenance, fueling, and storage in staging, storage, or parking area. Use drip pans if equipment is near a riparian area.
- The contractor shall furnish fuel and all supplies for equipment maintenance. Equipment should be free of leaks, in good operating condition, and have spark arresting equipment or a supercharger.
- Machine maintenance shall be performed at designated sites agreed to by the project manager and the contractor. At the maintenance site, a spill kit shall be available to capture any spilled fluids.
- No fuel, oil or machine fluids shall be stored at the project site.
- When refueling machinery, a spill kit shall be present and used.

Access Routes and Staging Areas: A staging area will be coordinated with the site manager. Equipment may also be staged on existing roads or other disturbed areas. Vehicles and other equipment would access the site via Cañada Road and the network of other access roads within the Filoli estate. Placement of all staging areas and other facilities will avoid and limit disturbance to sensitive habitats (e.g., stream banks, stream channel, and riparian habitat). All staging and material storage areas, including the locations where equipment and vehicles are parked overnight, will be placed away from riparian, wetland, and other sensitive habitats. When possible, staging and access areas will be situated in areas that are previously disturbed, such as developed areas, paved areas, parking lots, areas with bare ground or gravel, and areas clear of vegetation.

I. Inspections

Filoli will conduct inspections to ensure that the services are acceptable. Inspections do not relieve the contractor of the responsibility for maintaining quality control. Compliance inspections will be made on a sporadic basis. Such inspections are not final, and do not constitute acceptance by Filoli. Final inspections for payment will be made on completed items only.

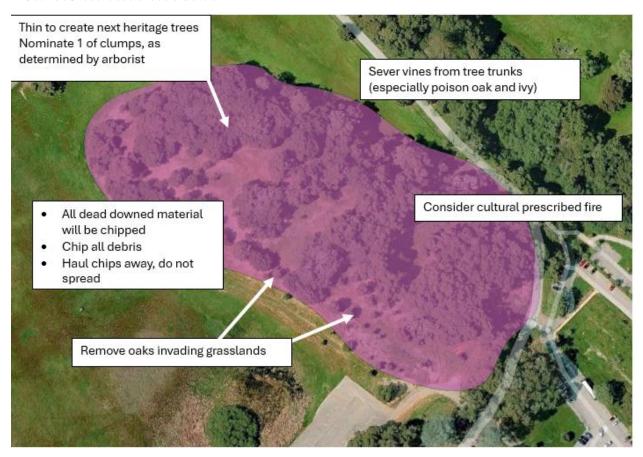
APPENDIX A: MAP DETAILS



Note that tree tallies provided in the following spreadsheets are not definitively required removals; work may end up being prioritized due to budget restrictions.

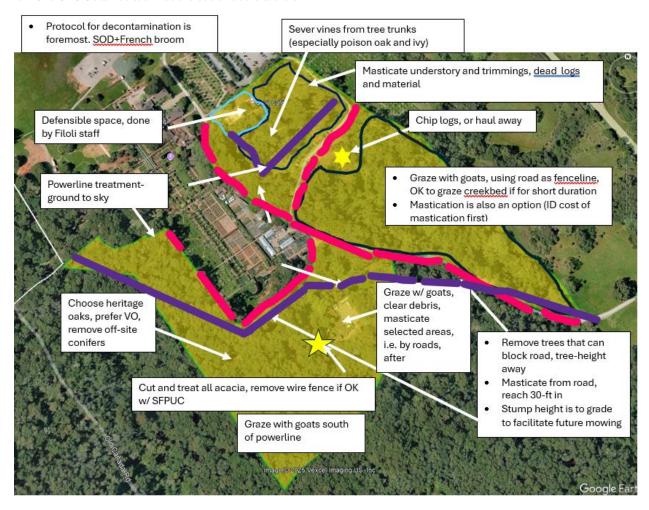
Additionally note that all trees described in the tree tallies as 2-10" are trees with a 10-12" diameter. All trees in work areas under 10" DBH will be removed per clearing specifications, unless designated with yellow paint to be kept for forest health purposes.

DUNDAG TREATMENT AREA



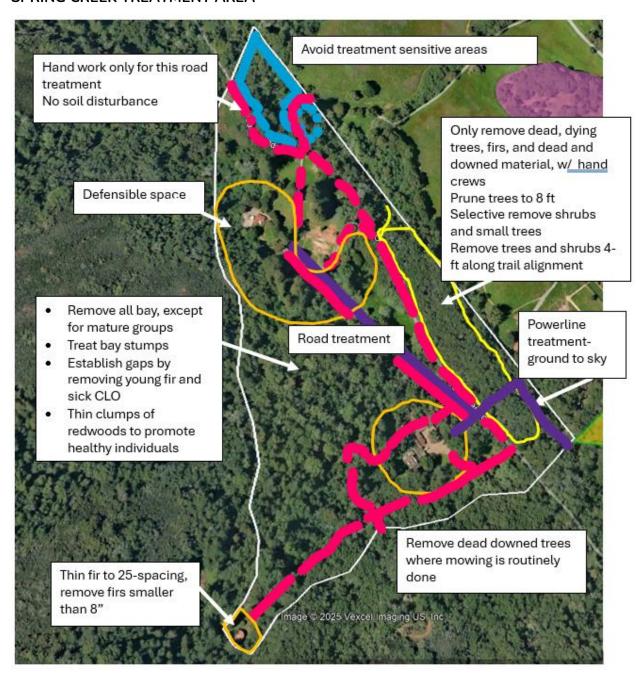
DUNDAG	DBH CLASS					
Species	2-10"	12-20"	22-30"	32-40"	>42"	total
Coast liveoak	0	13	3	0	1	17
CLO in powerline	0	0	0	0	0	0
CLO in roadside	0	0	0	0	0	0
CLO total	0	13	3	0	1	17
Valley oak	0	0	0	0	0	0
VO in powerline	0	0	0	0	0	0
VO in roadside	0	0	0	0	0	0
Valley oak total	0	0	0	0	0	0
Madrone	1	13	0	0	0	14
Madrone in powerline	0	0	0	0	0	0
Madrone in roadside	0	0	0	0	0	0
Madrone total	1	13	0	0	0	14
Monterey pine	0	0	0	0	0	0
MP in powerline	0	0	0	0	0	0
MP in roadside	0	0	0	0	0	0
Monterey pine total	0	0	0	0	0	0
California bay	0	0	0	0	0	0
Bay in powerline	0	0	0	0	0	0
Bay in roadside	0	0	0	0	0	0
California bay total	0	0	0	0	0	0
Exotic	0	0	0	0		0
EX in powerline	0	0	0	0	0	0
EX in roadside	0	0	0	0	0	0
Exotic total	0	0	0	0	0	0
Total trees marked	1	26	3	0	1	31
				class	count	percent
				snags	12	39%
				green	19	61%
				total	31	100%

VEC TO CORP YARD TREATMENT AREA



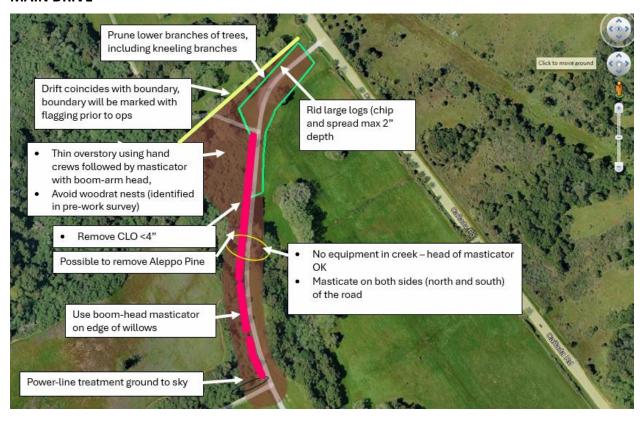
VEC-Corp Yard	DBH CLASS					
Species	2-10"	12-20"	22-30"	32-40"	>42"	total
Coast liveoak	46	171	25	0	0	242
CLO in powerline	13	119	37	1	1	171
CLO in roadside	32	148	28	2	0	210
CLO total	91	438	90	3	1	623
Valley oak	0	0	1	0	0	1
VO in powerline	1	3	2	1	0	7
VO in roadside	0	6	0	0	0	6
Valley oak total	1	9	3	1	0	14
Madrone	38	92	19	1	0	150
Madrone in powerline	7	45	12	1	0	65
Madrone in roadside	11	58	7	0	0	76
Madrone total	45	137	31	2	0	215
Conifers	3	9	3	0	0	15
Cons in powerline	0	0	0	0	0	0
Cons in roadside	0	0	0	0	0	0
Conifers total	3	9	3	0	0	15
California bay	0	0	0	0	0	0
Bay in powerline	1	1	1	0	0	3
Bay in roadside	1	1	1	0	0	3
California bay total	1	1	1	0	0	3
Exotic	3	0	1	0	0	4
EX in powerline	0	0	0	0	0	0
EX in roadside	0	0	0	0	0	0
Exotic total	3	0	1	0	0	4
Total trees marked	144	594	129	6	1	874
				class	count	percent
				snags	345	39%
				green	529	61%
				total	874	100%

SPRING CREEK TREATMENT AREA



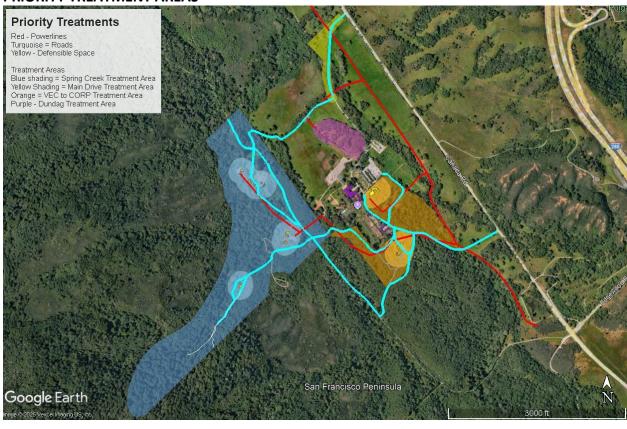
Spring Creek	DBH CLASS					
Species	2-10"	12-20"	22-30"	32-40"	>42"	total
Coast liveoak	12	35	2	1	0	50
CLO in powerline	17	64	10	1	3	95
CLO in roadside	21	143	50	11	3	228
CLO total	50	242	62	13	6	373
Valley oak	0	0	0	0	0	0
VO in powerline	0	0	1	0	0	1
VO in roadside	0	4	2	2	1	9
Valley oak total	0	4	3	2	1	10
Madrone	3	19	1	0	0	23
Madrone in powerline	0	1	0	0	0	1
Madrone in roadside	4	22	3	1	0	30
Madrone total	3	20	1	0	0	24
Conifers	1	1	0	0	0	2
Cons in powerline	0	0	0	0	0	0
Cons in roadside	1	6	5	1	0	13
Conifers total	1	1	0	0	0	2
California bay	0	0	0	0	0	0
Bay in powerline	0	0	0	0	0	0
Bay in roadside	0	0	0	0	0	0
California bay total	0	0	0	0	0	0
Exotic	0	0	0	0	0	0
EX in powerline	0	0	0	0	0	0
EX in roadside	0	0	0	0	0	0
Exotic total	0	0	0	0	0	0
Total trees marked	54	267	66	15	7	409
				class	count	percent
				snags	73	18%
				green	336	82%
				total	409	100%

MAIN DRIVE



Main Drive	DBH CLASS					
Species	2-10"	12-20"	22-30"	32-40"	>42"	total
Coast liveoak	3	3	1	3	0	10
CLO in powerline	1	1	2	0	0	4
CLO in roadside	0	0	0	0	0	0
CLO total	4	4	3	3	0	14
Valley oak	0	0	0	0	0	0
VO in powerline	0	0	0	0	2	2
VO in roadside	0	0	0	0	0	0
Valley oak total	0	0	0	0	2	2
Madrone	0	0	0	0	0	0
Madrone in powerline	0	1	0	0	0	1
Madrone in roadside	0	0	0	0	0	0
Madrone total	0	1	0	0	0	1
Monterey pine	0	0	0	0	2	2
MP in powerline	0	0	0	0	0	0
MP in roadside	0	0	0	0	0	0
Monterey pine total	0	0	0	0	2	2
California bay	0	0	0	0	0	0
Bay in powerline	0	0	0	0	0	0
Bay in roadside	0	0	0	0	0	0
California bay total	0	0	0	0	0	0
Exotic	0	0	2	0	0	2
EX in powerline	0	0	0	0	0	0
EX in roadside	0	0	0	0	1	1
Exotic total	0	0	2	0	0	2
Total trees marked	4	5	5	3	4	21
				class	count	percent
				snags	0	0%
				green	21	100%
				total	21	100%

PRIORITY TREATMENT AREAS



APPENDIX B: TREATMENT SPECIFICATIONS

Rx1. Defensible space:

- 1. Remove/treat all trees marked with blue paint dot for removal.
- 2. Prune any limbs of trees marked with a blue "P" at the branch indicated with a blue 'slash' mark on the tree. Refer to project manager if mark is ambiguous or unclear.
- 3. All dead plants and dry woody vegetation to be removed/treated.
- 4. Cut any grass within 10 ft. of pavement edges and 30 ft. of all structures to 4 in. height.
- 5. Remove leaves, bark, and humus under trees and shrubs (including vines and semi-woody species) to 1 in. Keep bare soil to under 50% of the site.
- 6. Remove dead material that drapes over retained ground cover (i.e.: leaves, bark, needles, and branches).
- 7. Remove vines, dead branches, and live branches smaller than 3 in. from retained trees up to 8 ft
- 8. All shrubs under retention trees to be removed to the tree dripline. Shrubs and short trees will be retained when not under a tree canopy.
- 9. Remove dead branches from live ground covers, vines, shrubs (including semi-woody species), and immature trees.
- 10. Prune trees and large tree-form shrubs (e.g. manzanita, elderberry, toyon) that are being retained. Exceptions may be identified by the project arborist.
- 11. In short trees, remove the branches on the lower one-third of the height of the tree. Example: if a tree is 10 ft tall, prune the lower 3–4 ft.
- 12. All dead branches smaller than 3 in. in diameter shall be removed.
- 13. Any pruning or thinning of the tree canopy on retained trees inside Defensible Space treatments shall be directed by the project arborist or Site Manager.

Rx2. Hazardous Fuel Reduction Areas:

- 1. Remove/treat all trees marked with blue paint dot for removal.
- 2. Prune any limbs of trees marked with a blue "P" at the branch indicated with a blue 'slash' mark on the tree. Refer to project manager if mark is ambiguous or unclear.
- 3. Trees to be retained in the Hazardous Fuel Reduction areas are marked with YELLOW PAINT.
- 4. Blue flagging indicates an exclusion areas.
- 5. The perimeter of the Hazardous Fuel Reduction areas is flagged in **PINK and shown on the treatment map**.
- 6. Adjacent treatment areas contain BLUE paint for REMOVAL trees.
- 7. Inside the Hazardous Fuel Reduction areas, all unmarked trees of all sizes are to be cut to the ground and material treated as described above.

Rx3. Tree pruning:

- 1. Prune any limbs of trees marked with a blue "P" at the branch indicated with a blue 'slash' mark on the tree. Refer to project manager if mark is ambiguous or unclear.
- 2. Lower branches of retained trees shall be removed to a minimum height of 8 ft.
- 3. Trees shorter than 24 ft prune no more than 1/3 third of total height.
- 4. Branches that droop below 8 ft are to be cut flush higher up the main trunk.
- 5. Large branches that serve to buttress the tree shall be retained; small material (smaller than 3 inches) will be removed. Those branches that are to be removed will be marked with blue paint.
- 6. The project arborist may designate some retention trees requiring **additional pruning**. These will be reviewed in the field with the contractors.

Rx4. Tree removal:

- 1. Remove/treat all trees marked with blue paint dot for removal.
- 2. Trees are to be cut to a maximum **6 inches stump height** (measured on uphill side to mineral soil).
- 3. Leave no hinge wood (left flat). Stump grinding is not requested.
- 4. Some oaks and bays will be removed but are **not to be treated** with herbicides.

Rx5. Dead surface fuels and branches:

- 1. Dead surface fuels under 6 in. in diameter to be removed/treated.
- 2. Large downed logs and trees already present and extending beyond the treatment area to be removed/treated. Upon treatment, logs become the property of the contractor, but may not be used for commercial purposes.
- 3. All down logs and material, including pre-existing material, within 100 ft of roadways, structures, and powerlines to be treated and hauled away.
- 4. Leaf litter and incidental chips from mastication are allowed. All other chips become the property of the contractor and are to be removed from the site, but may not be used for commercial purposes.
- 5. To minimize the volume of chips that need to be hauled away, material larger than 6 inches in diameter can be left onsite, dispersed with a maximum length 500-ft per acre.
- 6. Haul cut material out of select stream buffers and out of areas of steep (greater than 35%) slope, then chip (or masticate). All chips will be hauled offsite.
- 7. If there is an area where material cannot be chipped due to topographic variables, safety, environmental barriers, etc., the contractor shall alert the local Site Manager, and the material will be considered for piling instead.
- 8. Remove existing downed logs and cut high stumps as directed by Site Manager and approved by on-site biologist.

APPENDIX C. PHYTOSANITARY PROTOCOLS

BMPs for Managing Phytophthora NA2-lineage

The purpose of the SOD NA2 Best Management Practices are to limit and control the spread of the novel *Phytophthora ramorum* NA2-lineage in and around parklands and are intended to be used in conjunction with the existing *Phytophthora* Best Management Practices for Trail Work and Vegetation Management document.

Unlike NA1, NA2 does not survive well in soil, however it is readily spread in plant material and wind. There is some evidence that NA2 may infect more aggressively than NA1 in warmer areas and in a warming climate. Despite this, avoidance and sanitization BMPs

Sanitization Measures to Minimize Pathogen Spread:

For sanitization measures in the field, prepare and use sanitation kits consisting of:

- Isopropyl alcohol 70% solution, or Chlorine bleach and water (10:90 mixture of bleach:water), or Lysol
- Scrub brush
- Metal scraper
- Boot brush
- Plastic gloves

Use this kit to sanitize boots, tools, and equipment before and after moving to a new work site. Scrape all soil and debris off of the item then spray with alcohol solution. Use the rule **Arrive Clean Leave Clean** for each new work site.

The avoidance buffer area for each centroid of infection is 50 meters. Inside this buffer, make every effort to avoid moving plant material and soil within and outside of the buffer.

Limit or control the movement of soil and green waste from NA2-infested areas into areas with just NA1 or no SOD presence. Do not collect soil or plant material (wood, brush, leaves, litter, etc) from host trees in areas known to be infected with NA2.

- Implement daily hygiene practices like arriving to the site with clean and sanitized vehicles, equipment, tools, and personnel. All work will begin with clean equipment, and any equipment brought to the project site must arrive free of vegetation or soil.
- Decontaminate at the project site before leaving. Remove any and all vegetation and soil debris from vehicles, equipment, tools, and persons and sanitize at the project site before moving on to the next project or job site. Brush, blow, and/or knock off dirt and vegetation prior to moving any equipment off-site.
- When possible, work on P. ramorum-infected and -susceptible species during the dry season or allow flexible scheduling so that work may be done during dry periods.
 Avoid working in wet weather, on muddy trails or terrain when possible. If working in wet conditions, keep equipment on paved and dry surfaces to avoid mud and wash or brush off any mud and plant debris on equipment before moving to the next site.

BMPs for the Vegetation Management of Infected Host Trees:

California bay laurel, as well as other trees and shrubs, is a carrier of Phytophthora. Once lab results return a positive identification for the presence of the NA2-lineage in a particular bay tree, the following should be implemented to mitigate the spread of NA2 outbreaks by removing the infected bays.

- Completely remove all trees that are known to be infected by NA2. Smaller bay trees (<15 inches) are most infectious.
- If removal is not possible, prune the lower scaffold branches on infected bays. Remove the first scaffold (lowest branches) and second scaffold at most. This management method works best of larger bay trees as NA2 only inhabits the lower scaffold branches of mature bays.
- All foliage from bay trees (removed or pruned) must be:
 - o left on site in contact with the ground in a sunny area, or
 - o securely transported as green waste to a facility where it is composted or burnt.
 - o If water runoff control available, treat foliage in a facility with copper hydroxide.
- Tools used in tree removal and pruning may become contaminated and should be disinfected.
- Pile burning is a preferred way to treat cut infected material.
- Chipping is acceptable as long as the chipped material is left to dry in an area where it will not be transported and used as mulch.

Debris Disposal of Infected Material:

Vegetative material from host plants may harbor the pathogen and moving infected plant debris or live plants may inadvertently transfer the pathogen to uninfected areas. Plant material should remain on-site where possible. Do not leave infected material in an area where it might be transported.

- Infected material may be piled and burned during the burning season
- Small material left on site should be chipped and spread out in a thin layer in a sunny location to promote drying
- Larger pieces of material should be kept on-site

Sources:

www.matteolab.org Matteo M Garbelotto-Benzon Ph.D. 2024

Phytophthora Best Management Practices for Trail Work and Vegetation Management. EBRPD. 2021

Sudden Oak Death Guidelines for California Landscapers and Gardeners. California Oak Mortality Task Force. www.suddenoakdeath.org 2021