

COASTAL CONSERVANCY

Staff Recommendation
June 1, 2023

Pepperwood Strategic Fuel Break
Project No. 22-088-01
Project Manager: Sara Haugen

RECOMMENDED ACTION: Authorization to disburse up to \$515,200 to the Pepperwood Foundation to reconstruct fire-damaged grazing infrastructure and conduct vegetation management, including forest thinning, prescribed burns, and grazing to reduce wildfire risk at the Pepperwood Preserve in Sonoma County, and adoption of findings under the California Environmental Quality Act.

LOCATION: Pepperwood Preserve, Santa Rosa, Sonoma County

EXHIBITS

- Exhibit 1: [Project Location Maps](#)
- Exhibit 2: [Project Site Maps](#)
- Exhibit 3: [Photos](#)
- Exhibit 4: [Project Letters](#)
- Exhibit 5: [Vegetation Management Plan](#)
- Exhibit 6: [Chaparral Management Program Environmental Impact Review](#)

RESOLUTION AND FINDINGS

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Section 31113 of Chapter 3 of Division 21 of the Public Resources Code.

Resolution:

The State Coastal Conservancy hereby authorizes a grant of an amount not to exceed five hundred fifteen thousand two hundred dollars (\$515,200) to the Pepperwood Foundation (“the grantee”) to reconstruct fire-damaged grazing infrastructure and conduct vegetation management, including forest thinning, prescribed burns, and grazing, to reduce wildfire risk on 1054 acres of the Pepperwood Preserve (“Pepperwood”) in Sonoma County.

Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy (Executive Officer) the following:

1. A detailed work program, schedule, and budget.
2. Names and qualifications of any contractors to be retained in carrying out the project.
3. A plan for acknowledgement of Conservancy funding.
4. Evidence that all permits and approvals required to implement the project have been obtained.
5. Evidence that the grantee has entered into any agreements determined necessary for the project by the Conservancy's Executive Officer.

If the grantee uses grant funds to purchase equipment costing \$5,000 or more, the grantee shall use such equipment for wildfire-related purposes for the duration of the useful life of the equipment.

Findings:

Based on the accompanying staff recommendation and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The project will be undertaken pursuant to Section 31113 of Chapter 3 of Division 21 of the Public Resources Code.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria.
3. The Pepperwood Foundation is a nonprofit organization organized under section 501(c)(3) of the U.S. Internal Revenue Code.
4. The Conservancy has independently reviewed and considered CALFIRE's 1981 Chapparral Management Program Environmental Impact Report ("PEIR") certified by CALFIRE pursuant to the California Environmental Quality Act ("CEQA") and the Vegetation Management Plan, which includes an environmental checklist, prepared for the project by CALFIRE (adopted on March 3, 2023) pursuant to its Vegetation Management Program (See Exhibits 5-6 attached to the accompanying staff recommendation). The Conservancy finds that the Pepperwood Preserve Vegetation Management Project ("Project") is within the scope of the PEIR and that the Project as designed and mitigated avoids, reduces, or mitigates the potentially significant environmental effects to a less-than-significant level, and that there is no substantial evidence based on the record as a whole that the project may have a significant effect on the environment, as defined in 14 Cal. Code Regulations Section 15382.

STAFF RECOMMENDATION

PROJECT SUMMARY:

Staff recommends the Conservancy authorize a grant of up to \$515,200 to the Pepperwood Foundation to conduct vegetation management activities and reconstruct damaged grazing infrastructure to reduce wildfire risk at the Pepperwood Preserve in Sonoma County. The project will cover 1,054 acres of the Preserve. Vegetation management will occur on 210 acres and cattle grazing on 900 acres; 56 acres will be subject to both cattle grazing and vegetation management. Wildfire risk reduction activities on the forest land will include forest thinning, ladder fuel reductions, and prescribed burns, while activities on the grassland will include conservation grazing management. The project includes reconstructing grazing infrastructure that was damaged in two prior catastrophic wildfires.

Recent wildfires have led to catastrophic impacts to life and property at the Pepperwood Preserve and in the surrounding community. The 2017 Tubbs Fire burned 90% of the preserve, damaging essential grazing infrastructure, including fencing, water systems, a cattle processing corral, two staff homes, and a barn. The 2019 Kincade Fire then burned 60% of the preserve, further damaging the grazing infrastructure. Because of its strategic location, CALFIRE used the recently grazed Pepperwood ridgeline as an essential fuel break to stop the Kincade Fire from moving into the nearby Mark West community, which was still recovering from the Tubbs Fire. This project is needed to rebuild the conservation grazing infrastructure that was destroyed by the fires and to minimize fire risk to nearby communities through vegetation management, including forest thinning and prescribed fire treatment (see Exhibit 3: Project Photos).

The project is a continuation of previous forest stewardship and conservation grazing practices that have treated over 597 acres on the property. The project includes forest thinning and ladder fuel reductions along with prescribed burns and conservation grazing, all of which will be carried out using sustainable management practices informed by scientific research in concert with Traditional Ecological Knowledge provided by the Pepperwood Foundation's Native Advisory Council. These treatments are vital to effectively maintain a critical wildfire control line for the safety of first responders working in the area, surrounding communities, and vulnerable wildlife and their habitats.

The Pepperwood Preserve is located in Santa Rosa and sits on traditional Wappo land (See Exhibit 1: Project Location Maps). The Pepperwood Foundation engages community groups, local landowners, other research programs, and government agencies in their work to achieve mutual goals by leveraging resources such as knowledge, land, labor, and equipment. The Pepperwood Foundation has a long-standing relationship with local Tribe leaders, both through a formal partnership with their Native Advisory Council and more recently with the addition of an Indigenous Education Coordinator staff position. The Council and Coordinator give substantial input for the Pepperwood Foundation's forest stewardship planning process and outreach activities. The Pepperwood Foundation's projects are supported by the Knights Valley/Franz Valley Community Wildfire Protection Plan and are included in the Sonoma County Community Wildfire Protection Plan. In addition, the Pepperwood Foundation's 500+ members support their mission through donations and volunteer hours.

The project includes rebuilding grazing infrastructure, including new water troughs, water lines, and fencing as well as management of the conservation grazing program on 900 acres of

grasslands. Management includes scientific resource monitoring and frequently moving grazing animals to promote native grassland health and improve carbon sequestration and water infiltration. The project includes continued forest thinning and prescribed fire treatments on four units totaling 210 acres over the next three years (See Exhibit 2: Project Site Maps). The project includes:

- Three years of forest management activities, including mapping, surveys, tree marking for thinning, prescribed fire preparation, implementation, and equipment purchases, and post-fire restoration of fire lines;
- Grazing infrastructure purchases, including fencing, water troughs, and grazing supplies; and
- Grazing management activities, including hiring a project manager, herd manager, and other necessary staff.

Site Description:

Pepperwood is a 3,200-acre nature preserve owned by the Pepperwood Foundation. It features the Dwight Center for Conservation Science, which serves as a conservation think tank and a hub for ecological education. The preserve is located at the headwaters of the Mark West, Mayacama, and Brooks Creek basins and sits within a historical wildlife corridor where burns occurred in 1923, 1964, 2017 and 2019. It contains a north/south ridgeline that runs for 5.5 miles and serves as a fuel break for the communities of Knights Valley, Franz Valley, Mountain Home Ranch, Mark West, Larkfield, Shiloh Hills, Windsor, and Chalk Hill. The specific project site includes 900-acres of upland grasslands to be grazed using cattle and four forest plots totaling 210 acres for vegetation management using thinning crews, and pile and broadcast burning (See Exhibit 2: Project Site Maps).

Grant Applicant Qualifications:

The Pepperwood Foundation has successfully administered millions of dollars in government and foundation grant awards. It has implemented similar forest improvement projects since 2006 with funding from the Natural Resource Conservation Service, California Department of Fish and Wildlife, and CALFIRE's California Forest Improvement Program (See Exhibit 4: Project Letters). The Pepperwood Foundation has completed five prescribed burns in partnership with CALFIRE since 2016 and has partnered with local grazing operators for 15 years to utilize cattle to improve grassland and soil health. The Pepperwood Foundation completes a financial audit each year and has accountability measures to monitor and verify purchases and implementation within the grant timeline. Finally, the Pepperwood Foundation has an adaptive management process with a monitoring component that informs their ongoing stewardship and maintenance for the property.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA:

The proposed project is consistent with the Conservancy's Project Selection Criteria, last updated on September 23, 2021, in the following respects:

Selection Criteria

1. Extent to which the project helps the Conservancy accomplish the objectives in the Strategic Plan.

See the “Consistency with Conservancy’s Strategic Plan” section below.

2. Project is a good investment of state resources.

The proposed project will reduce the risk of wildfire for Californians in the area while providing essential benefits for wildlife and habitat and scientific research on sustainable land management. The project is feasible based on the Pepperwood Foundation’s experience with vegetation management (16 years) and cattle grazing operations (28 years). Their budget is reasonable based on contractor and vendor quotes, as well as hourly estimates for staff time and estimated burn boss fees. CALFIRE will provide in-kind support for prescribed fire implementation the day of the burns.

Pepperwood serves as a demonstration site for regenerative agriculture, vegetation fuels management, and more that could be replicated in other regions. The project work will add to the understanding of forest stewardship of inter-coastal forests which are under-represented in scientific literature, with educational activities and partnerships to share lessons learned. The Pepperwood Foundation works closely with state and federal agencies and leverages non-state resources by collaborating with their Native Advisory Council, the Sonoma County Forest Working Group, the Sonoma County Resource Conservation District, UC Cooperative Extension, and other universities. The proposed project is consistent with several state plans, including the following:

- [California’s Wildfire and Forest Resilience Action Plan](#) (Governor’s Forest Management Task Force, January 2021), which calls for activities such as fuels reduction, forest thinning, vegetation management, prescribed fire, shaded fuel breaks, defensible space, and enhancement of fire-prone habitats to reduce fire risk.
- The [California Forest Carbon Plan](#) (California Natural Resources Agency, 2018), which calls for restoration of natural fire regime and forest composition through a multitude of approaches including thinning, prescribed burns, invasive vegetation management, and shaded fuel breaks.
- The [Community Wildfire Prevention & Mitigation Report](#) (CALFIRE, 2019), which urges state and local agencies to implement the goals of the Carbon Forest Plan and lays out recommendations to agencies to increase the scale and pace of management and mitigation actions to improve forest health and resiliency.

3. Project includes a serious effort to engage tribes. Examples of tribal engagement include good faith, documented efforts to work with tribes traditionally and culturally affiliated to the project area.

The Pepperwood Foundation has a long-standing relationship with local Tribe leaders through their Native Advisory Council and with the recent addition of an Indigenous Education Coordinator staff position. As described in the Project Summary, these groups provide

Traditional Ecological Knowledge for the Pepperwood Foundation's forest stewardship planning process and outreach activities. Additionally, the Pepperwood Foundation aims to coordinate low intensity cultural burns with the Native Advisory Council once the initial fuel load has been reduced.

4. Project benefits will be sustainable or resilient over the project lifespan.

The project will deliver ecological benefits that will build upon each other for decades after the grant period. The fuel reduction will reduce ladder fuels and fire-killed understory vegetation, which will better protect large trees from being killed by fire. These older trees sequester significant amounts of carbon through their extensive root networks, help hold soil in place, and provide important nesting and foraging resources for wildlife. Therefore, keeping them alive contributes to statewide sustainability goals related to carbon sequestration and to climate resilience by enabling the ecosystem to recover more quickly after a fire and reduce the incidence of post-fire soil erosion and landslides. The grassland fuels reduction will provide safe zones for fire crews to access during wildfires and reduce the risk of nearby homes being burned. Finally, the project will benefit local habitat by keeping toxic materials from burned residences out of the environment. The Pepperwood Foundation is dedicated to long-term forest management and has a track record of implementing projects like the one proposed in coordination with CALFIRE.

5. Project delivers multiple benefits and significant positive impact.

The central benefits of this project are to help protect homes in the wildland urban interface and nearby communities, while also supporting urgent regional and state habitat and wildlife conservation goals. In addition to fuel reduction, the Pepperwood Foundation's forest stewardship goals include greenhouse gas reduction by protecting large trees and improved forest health and wildlife habitat. Grazing infrastructure improvements will not only contribute to supporting fuel reduction efforts, but also allow the Pepperwood Foundation to demonstrate how grazing cattle can be used in conservation efforts to improve grasslands to sequester more carbon, increase water infiltration, and improve wildlife habitat. Through their research facility, the Pepperwood Foundation will use data generated from this work to improve scientific knowledge and understanding of conservation management strategies that promote climate resilience.

6. Project planned with meaningful community engagement and broad community support.

As discussed in the Project Summary, the Pepperwood Foundation engages community groups, local landowners, other research programs, and government agencies in their work to achieve mutual goals by leveraging resources such as knowledge, land, labor, and equipment. The project is supported by CALFIRE, Sonoma County Agriculture and Open Space District, Upper Mark West Fire Safe Council, Friends of Mark West Watershed, and Wildland Resources Management (See Exhibit 4, Project Letters). See Selection Criteria #3 for engagement with Tribes.

PROJECT FINANCING

Coastal Conservancy	\$515,200
Sonoma County Agricultural Preservation and Open Space District	\$316,349
Project Total	\$831,549

The anticipated source of funding is a Fiscal Year 2022-23 appropriation from the General Fund to the Conservancy for wildfire resilience. The proposed project is consistent with the anticipated funding source. CALFIRE will provide in-kind support for prescribed fire implementation the day of the burns, and the Pepperwood Foundation has received funds from Sonoma County Agricultural Preservation and Open Space District for \$316,349.

Unless specifically identified as “Required Match,” the other sources of funding and in-kind contributions described above are estimates. The Conservancy does not typically require matching funds or in-kind services, nor does it require documentation of expenditures from other funders or of in-kind services. Typical grant conditions require grantees to provide any funds needed to complete a project.

CONSISTENCY WITH CONSERVANCY’S ENABLING LEGISLATION:

The recommended project will be undertaken pursuant to Section 31113 of Chapter 3 of Division 21 of the Public Resources Code, which authorizes the Conservancy to address the impacts and potential impacts of climate change on resources within the Conservancy’s jurisdiction (Section 31113(a)).

Pursuant to Section 31113(b), the Conservancy is authorized to award grants to nonprofit organizations and public agencies to undertake projects that reduce greenhouse gas emissions and address extreme weather events, sea level rise, flooding, and other coastal hazards that threaten coastal communities, infrastructure, and natural resources.

Pursuant to Section 31113(c), the Conservancy must prioritize grants for projects that maximize public benefits and have one of several purposes, including reducing emissions of greenhouse gases.

Consistent with these sections, the proposed project will restore the health and resilience of California forests and grasslands and reduce fire risk to communities. The project will help California’s natural lands to be more resilient to catastrophic wildfires which may ultimately reduce greenhouse gas emissions released from increased wildfires due to climate change.

The proposed project also addresses resources within the Conservancy’s jurisdiction by improving forests, grasslands, or natural lands and reducing the risks of wildfire that would adversely impact water quality and habitat in a coastal watershed (Chapter 5.5 of Division 21 of the Public Resources Code).

CONSISTENCY WITH CONSERVANCY'S 2023-2027 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 4.2 Wildfire Resilience**, the proposed project will implement a project to restore the health and resilience of California forests, grasslands, and natural lands in a manner that reduces fire risk to communities. The project will help California's natural lands to be more resilient to catastrophic wildfires.

CEQA COMPLIANCE:

CALFIRE prepared a Vegetation Management Plan (VMP) for this project's prescribed fire and mechanical fuel treatment activities pursuant to its Vegetation Management Program, which is the subject of the Chapparal Management Program Environmental Impact Report (PEIR), certified by CALFIRE in 1981. (See Exhibits 5-6). The VMP includes an environmental checklist that identifies the mitigation measures CALFIRE will implement to avoid potential significant impacts identified in the PEIR.

The potentially significant impacts of the prescribed fire and mechanical treatments and corresponding mitigation measures include:

Water Resources: Prescribed fire and other fuel management activities can cause increased storm runoff, increased low flow in streams and impairment of water quality. To mitigate these impacts, the VMP requires that no ignitions occur within 50 feet of intermittent and seasonal streams or the break in slope, whichever distance is greater. (There are no perennial streams in the project area.) Any vegetation shading streams will not be disturbed during prescribed fire. No ground-disturbing activities will occur adjacent to streams, and watercourses will be kept free of slash and debris.

Soils/Water Quality: Fuel management activities may cause soil erosion and sedimentation of streams and other waterbodies. To address these impacts, Pepperwood Foundation will not use heavy equipment and vegetation in natural drainages will be left to trap sediment.

Vegetation: Prescribed fire could kill or damage trees under certain conditions. During the burns, trees will be protected through cool prescription and/or clearing around the trees.

Wildlife: Prescribed fire may harm or displace wildlife and damage or convert wildlife habitat. The burns will be done in a pattern to maintain a mosaic of young and old growth for a diverse habitat structure, and islands of chaparral will be maintained for thermal protection and escape cover for wildlife.

There is a known Northern Spotted Owl activity center near the project area, but it is unlikely that their nesting habitat would be impacted by the low intensity burn. The VMP requires Pepperwood Foundation to inspect the burn area for any Northern Spotted Owl habitat or activity prior to the burn, and to avoid those areas in consultation with Pepperwood Preserve staff who may have more knowledge of recent owl activity on the property.

Air Quality: Prescribed fire produces smoke that can impair air quality in the surrounding area. A Smoke Management Plan has been prepared in consultation with the Air Pollution Control District to minimize air quality impacts.

Archaeology and Cultural Resources: Prescribed fire can damage or destroy archaeological, tribal, and cultural resources. An archeological study was carried out for the four burn units in the project area and found the proposed project will not affect historic, archeological or tribal cultural resources. The following protection measures will be implemented to protect archeological resources:

1. The CALFIRE Resource Management Project Manager will be identified to ensure protection measures are followed.
2. The CALFIRE Archeologist will be notified five business days prior to prescribed burn days.
3. The CALFIRE Resource Management Project Manager or archaeologically certified individual will be onsite to ensure cultural resource protection is carried out.
4. The Incident Commander will review the Archeological Review Memo for protection measures prior to ignitions.

Visual Impacts: Prescribed fire and other fuel management activities can cause significant visual changes to the landscape. Pepperwood Foundation will minimize these impacts by following natural features such as stream courses, vegetation type lines, and ridgetops.

Greenhouse Gases: Prescribed fire produces carbon dioxide emissions (although less than a high-intensity wildfire would generate). Trees will be protected by cool prescription and clearing around them, minimizing the potential increase in atmospheric greenhouse gases.

Staff has independently evaluated the Pepperwood Vegetation Management Plan, including the Environmental Checklist and 1981 PEIR, and concurs that the project's prescribed fire and mechanical treatment activities are within the scope of the 1981 PEIR and that there is no substantial evidence that the proposed project will have a significant effect on the environment. Staff therefore recommends that the Conservancy find that the project as mitigated avoids, reduces, or mitigates the possible significant environmental effects to a level of less-than-significant and that there is no substantial evidence that the project will have a significant effect on the environment as that term is defined by 14 Cal. Code Regs. § 15382.

Reconstruction of grazing infrastructure is categorically exempt from CEQA pursuant to 14 Cal. Code Regs. § 15302, which applies to the reconstruction or replacement of existing structures or facilities. Grazing at the Pepperwood Preserve is categorically exempt pursuant to 14 Cal. Code Regs. § 15304, because it involves a minor alteration to grasslands without the removal of healthy, mature, scenic trees.

Upon approval of the project, Conservancy staff will file a Notice of Determination.