COASTAL CONSERVANCY

Staff Recommendation
November 21, 2024

TENMILE CREEK VASSAR HABITAT ENHANCEMENT AND SEDIMENT CONTROL PROJECT

Project No.18-008-03
Project Manager: Su Corbaley

RECOMMENDED ACTION: Authorization to disburse up to $447,785 to the Mendocino County Resource Conservation District to undertake the Tenmile Creek Vassar Habitat Enhancement and Sediment Control Project, which consists of restoration of 15-19 acres of grasslands, repair of 3,000-3,600 linear feet of gullies, and upgrade of 1.2-1.4 miles of roads, to enhance water quality and reduce sediment delivery to Tenmile Creek, a tributary to the South Fork Eel River, in Mendocino County; and adoption of findings under the California Environmental Quality Act.

LOCATION: Laytonville, Mendocino County

EXHIBITS

Exhibit 1: Project Location Map

Exhibit 2: Photos

Exhibit 3: Tenmile Creek Vassar Habitat Enhancement & Sediment Control Project Basis of Design Final Report

Exhibit 4: Project Letters

Exhibit 5: Consolidated Final Restoration Projects Statewide General Order Programmatic Environmental Impact Report (PEIR)

Exhibit 6: Notice of Applicability for Coverage under the PEIR, Notice of Determination for the Tenmile Creek Vassar Habitat Enhancement and Sediment Control Project, Impact Avoidance Measures and Monitoring Plan

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RESOLUTION AND FINDINGS

Staff recommends that the State Coastal Conservancy adopt the following resolution and findings.

Resolution:

The State Coastal Conservancy hereby authorizes a grant of an amount not to exceed four hundred forty seven thousand seven hundred and eighty five dollars ($447,785) to the Mendocino County Resource Conservation District ("the grantee") to undertake the Tenmile Creek Vassar Habitat Enhancement and Sediment Control Project, which consists of restoration of 15-19 acres of grasslands, repair of 3,000-3,600 linear feet of gullies, and upgrade of 1.2-1.4 miles of roads, to enhance water quality and reduce sediment delivery to Tenmile Creek, a tributary to the South Fork Eel River, in Mendocino County (the "project"). If the anticipated additional funds are not awarded to the grantee, the Executive Officer may authorize a reduction of the project scope provided that the reduced scope shall be designed to achieve the maximum amount of restoration and sediment reduction attainable with the available funds.

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 agreements sufficient to enable the grantee to implement, operate, and maintain the project.

Findings:

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

1. The proposed authorization is consistent with Chapter 5.5 of Division 21 of the Public Resources Code, regarding integrated coastal and marine resources protection.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria.
3. The Conservancy has independently reviewed and considered the Consolidated Final Restoration Projects Statewide General Order Programmatic Environmental Impact Report (PEIR) which was certified by the California State Water Resources Control Board on August 6, 2022, pursuant to the California Environmental Quality Act ("CEQA") (Exhibit 4), and the Notice of Applicability, Notice of Determination, Avoidance Measures and Monitoring Plan for the Tenmile Creek Vassar Habitat Enhancement and Sediment Control Project approved by the North Coast Regional Water Quality Control Board on February 26, 2024 (Exhibit 5). The Conservancy finds that:
    a. The project meets the definition of a restoration project under the General Order.
    b. All the effects of the project have been covered in the PEIR and Avoidance Measures and Monitoring Plan and all applicable general protection measures, best management practices, and avoidance measures identified in the PEIR and

Impact Avoidance Measures and Monitoring Plan have been required or incorporated into the project.

c. The project is, therefore, within the scope of the PEIR and no additional CEQA documentation is required.

d. The Conservancy finds that the project will have potentially significant effects in the areas of Biological Resources and Hydrology and Water Quality. The Conservancy finds that the avoidance measures identified in the PEIR avoid, reduce, or minimize these possible significant environmental effects to less-than-significant levels and that the avoidance measures have been required or incorporated into the project. The Conservancy adopts the Findings regarding Significant Effects set forth in the accompanying staff recommendation.

STAFF RECOMMENDATION

PROJECT SUMMARY:

Staff recommends the Conservancy authorize disbursement of up to $447,785 to the Mendocino County Resource Conservation District (MCRCD) to undertake the Tenmile Creek Vassar Habitat Enhancement and Sediment Control Project, which consists of restoration of 15-19 acres of grasslands, repair of 3,000-3,600 linear feet of gullies and the upgrade of 1.2-1.4 miles of roads, to enhance water quality and reduce sediment delivery to Tenmile Creek, a tributary to the South Fork Eel River, on Vassar Ranch in Mendocino County (the "project")(See Exhibit 1). The project will improve stream flow, water quality, and aquatic habitat for endangered salmonids by reducing sediment inputs, increasing water storage, and adding large wood in salmonid rearing habitat in lower Tenmile Creek.

Tenmile Creek is a major tributary to the South Fork Eel River in northwestern Mendocino County that had substantial historic fisheries production and still supports three species listed in the Endangered Species Act: Chinook salmon, coho salmon, and steelhead. The reach of lower Tenmile Creek in the project area provides habitat for these species, including high numbers of spawning Chinook. National Marine Fisheries Service (NMFS) data shows the Tenmile Creek watershed was likely one of the most significant coho salmon producers in the Eel River watershed, which bodes well for population resilience if flow and habitat are restored. The last viable coho salmon meta-population in the Southern Oregon/Northern California Coastal ("SONCC") conservation area is in the upper South Fork Eel River, upstream and downstream of Tenmile Creek.

In 2018, the Conservancy granted $237,866 to the Eel River Recovery Project (ERRP) to complete the Tenmile Creek Water Conservation and Restoration Pilot Planning Project, a community outreach and planning project completed in 2020. The planning project assessed the health of the watershed and identified water conservation and restoration opportunities. Study results are detailed in the Tenmile Creek Watershed Conservation and Restoration Action Plan ("Action Plan"). This project is an outgrowth of the planning project. Another significant outcome of the planning project was the formation of the Tenmile Creek Watershed Council

("TCWC") a group of community volunteers that work to restore the beneficial uses of Tenmile Creek, its tributary streams, and associated riparian corridors. The TCWC will remain engaged for outreach throughout this project.

The South Fork Eel River watershed, and therefore the Tenmile Creek watershed as a tributary, is listed under Section 303(d) of the federal Clean Water Act by the U.S. Environmental Protection Agency as an impaired water system due to excessive sediment and high temperatures. The California State Water Resources Control Board (SWRCB) established Total Maximum Daily Load limits to reduce sediment and temperature and improve water quality in the South Fork Eel River. Tenmile Creek suffers from sediment over-supply that reduces spawning success, fills rearing pools, decreases aquatic insect production important for juvenile salmonids, and promotes stream warming. Salmonids in Tenmile Creek are also threatened by flow depletion, non-point source agricultural pollution, and invasive species. Gullies with downcutting in meadows and on forested hillslopes, stream bank erosion, road drainage and stream crossings are the prime erosion problems in the project area and the larger Tenmile Creek watershed (Exhibit 2).

The project will repair gullies, restore a meadow, upgrade culverts, reshape roads, and stabilize a streamside landside on Vassar Ranch, as detailed in the Project Basis of Design Report, which was prepared as part of the Conservancy's planning grant to ERRP (Exhibit 3). Approximately 32 locations will be treated, including approximately 15 stream crossings (Exhibit 1). These treatments are expected to reduce sediment delivery to Tenmile Creek by over 9,000 cubic yards over the next ten years. The project includes three years of monitoring and adaptive management.

Gully repair will involve installing permeable, hand-built structures made from locally available woody materials, such as brush and downed trees, that are designed to trap sediment, build riparian soils, and potentially raise the water table. Native grasses will be planted in sediment deposits above check dams. Gully treatment will be conducted as described in the Basis of Design at locations shown in Exhibit 1. In addition to gully treatments, the following steps will be taken to restore the meadow and adjacent oak woodland: 1) protecting seedlings and saplings from browsing, 2) planting tree saplings and seeds, 3) planting native grasses from seed and plugs. Check dams in gullies will be four feet high or less and notched in the middle to minimize potential erosion during high flow events. Native grass restoration in the meadow and in the repaired gully areas will reduce future erosion through their robust root systems.

The project will address sediment delivery from the unpaved road network by upgrading stream crossings with culvert replacements and by reshaping roads to hydrologically disconnect them from the stream system. Many culverts on Tenmile Creek Road are failing, and most will be replaced and upgraded to larger pipes. Inlets and outfalls will be armored with rock and planted with willows to prevent erosion. Portions of the road along Tenmile Creek and Hargus Road will be out-sloped to eliminate in-board ditches that are causing sediment pollution. Rolling dips will be installed to direct water off the road surface. Critical dips will be installed near stream crossings to lessen the risk of crossing failure. Where cut-banks and fill-slopes are eroding, bioengineering techniques will be employed to stabilize them.

A large woody debris and boulder structure and riparian plantings will be used to stabilize a landslide above mainstem Tenmile Creek. The landslide is actively eroding during high flows, contributing fine sediment to the creek and threatening to wash out the road prism above the channel. The wood and boulder structure will stabilize the slide and provide habitat benefits for fish, including cover and velocity refugia. Riparian plantings of willow and ash will be included within this reach.

The project will include workshops to train participants in restoration techniques, with the goal of developing a local workforce for similar projects. Up to three hands-on training sessions will be offered at Vassar Ranch, where participants can gain practical experience applying Low-Tech Process-Based Restoration methods to gully restoration. Up to four watershed-wide workshops/talks will be led by the Eel River Recovery Project, emphasizing the importance of integrative ecological restoration throughout the Tenmile Creek Basin.

The project is nearly ready to proceed to implementation. While some final design work remains to be completed, 60% designs are complete and permitting is nearly complete for the project. The NMFS covered the project under its regional Programmatic Biological Opinion (PBO), the US Army Corps of Engineers issued a Clean Water Act Section 404 permit, and the North Coast Regional Water Quality Control Board (NCRWQCB) permitted the project under SWRCB's Statewide Restoration General Order. The application for a Lake and Streambed Alteration Agreement permit from California Department of Fish and Wildlife has been submitted and it is anticipated that this permit will be issued as soon as the permit fee is paid from the proposed grant.

The project has not secured all the funding needed for full implementation. If the funding needed for full implementation is not obtained, the project will be reduced in scope so that the recommended Conservancy grant pays for partial implementation. Partial implementation of the project will still yield significant benefits by reducing sediment inputs into Tenmile Creek to a lesser degree and restoring a smaller acreage of meadow habitat. The reduced scope will be designed to achieve the maximum amount of restoration and sediment reduction attainable with the available funds.

Site Description: The Vassar Family Ranch, located five miles north of Laytonville, spans two ridgetops, with lower Tenmile Creek running through the center. Although the Vassar family has not grazed the land in decades, the impacts of past grazing are still evident in a 52-acre steep meadow and in the form of gullies that have developed. Landowner Bob Vassar has spent the past eighty-three years on this family ranch and recalls how overgrazing by heavy cattle led to the colonization of the meadow by invasive medusa head grass and increased soil movement. Additionally, the Tenmile Creek Conservation and Restoration Action Plan (ERRP 2020) prioritized this area due to the extensive use of Lower Tenmile Creek by salmonid species. It is one of the most productive reaches for Chinook salmon in the entire Eel River watershed and is also seasonally used by coho salmon and steelhead trout.

Swaths of native grass still exist in the meadow on Vassar Ranch as a seed bank, and these areas show the best soil-surface stability. Over two hundred oak and hardwood starts and saplings are being heavily grazed by wildlife, limiting riparian recovery. Neighboring forests are being concurrently treated for wildfire resiliency under a CAL FIRE forest health grant and will

provide biomass materials for the project, as well as reduce impacts of Douglas-firs on oak woodland and savanna habitat.

The Vassar Family Ranch currently has a Landowner Access Agreement with ERRP. The family has expressed excitement and support for the proposed project and are aware that MCRCD is the project proponent. The MCRCD and Vassar family will execute a Landowner Access Agreement before commencing work.

Grant Applicant Qualifications: The mission of the MCRCD is to conserve, protect and restore wild and working landscapes to enhance the health of the water, soil and forests in Mendocino County. MCRCD has extensive experience with managing watershed restoration grants over the last 20 years. In addition to managing projects with the Conservancy, MCRCD has successfully managed projects with SWRCB, California Department of Fish and Wildlife, the Wildlife Conservation Board, California Department of Food and Agriculture, the Natural Resources Conservation Service, and CALFIRE. MCRCD staff have worked with landowners and the Cahto Tribe in the Tenmile Creek watershed since 2013. MCRCD has experience with all aspects of this project and will also involve a suite of expert contractors and consultants to ensure success.

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 project provides important benefits to Californians by enhancing water quality and salmonid habitat in Tenmile Creek and downstream in the South Fork Eel River. The project is feasible, using tested methods, and the project cost is reasonable. The project leverages partnerships between MCRCD, ERRP, TCWC's volunteers, and the Cahto Tribe. The project advances statewide goals for salmonid recovery and is consistent with the following plans:

- The project carries out the recommendations of the **Tenmile Creek Conservation and Restoration Action Plan** (ERRP 2020) as discussed above.
- The project addresses the recommendation in the **South Fork Eel River Basin Overview Final Report (California Department of Fish and Wildlife 2014)** to carry out Flow and Water Quality Improvement Activities by enhancing water quality.
- The project promotes the goal of restoration of important species and habitat in support of the **California Water Action Plan**. The project also supports the goals of the following actions: protect and restore important ecosystems, provide assistance to disadvantaged communities, encourage State focus on projects with multiple benefits, and manage headwaters for multiple benefits.

- **California Climate Adaptation Strategy/Safeguarding California: Reducing Climate Risk Plan**: Goal B-3 "Increase restoration and enhancement activities to increase climate resiliency of natural and working lands."

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 Cahto Tribe was continuously consulted during the ERRP's pilot grant from the Conservancy from 2018 to 2020 and is actively engaged to provide cultural monitoring on an ERRP grant from CAL FIRE for a forest health project taking place on Vassar Ranch; ERRP has a $30,000 contract with the Cahto Tribe for these services. The Cahto Tribe will monitor the proposed sediment reduction project as well.

MCRCD has worked with the Cahto Tribe in the Tenmile Creek Watershed since 2013. To the extent possible, MCRCD's request for proposals will include provisions for local and Indigenous companies and crews to participate in the project. MCRCD and ERRP hope to incorporate traditional ecological knowledge and provide training to local crews through this project.

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

The project will enhance project area roads and habitats, resulting in reduced maintenance needs. The project includes five years of maintenance and monitoring. The landowner is committed to maintaining project improvements after this period for the lifespan of the project. Monitoring culvert inlets for plugging potential is a standard management procedure for the Vassar family, and that effort will also be reduced due to the proper sizing of culverts for the 100-year flow events. The Vassar family is committed to being good stewards of their roads, having demonstrated this through regular road maintenance over the years. They are committed to not grazing the meadow, a practice they discontinued decades ago.

5. Project delivers multiple benefits and significant positive impact.

The primary goal of this project is enhancement of salmonid habitat in Tenmile Creek and the South Fork Eel River through the reduction of sediment delivery to Tenmile Creek. The project is one component of a community-based effort to restore a watershed in a severely disadvantaged community with little access to services. The project will enhance carbon sequestration by restoring deep-rooted native plants in the Vassar Meadow. The project will incorporate work force development and plans to engage a local indigenous nonprofit organization, to assist with the gully repairs on Vassar meadow.

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

Laytonville, a nearby town with a population of 1,152, faces significant economic challenges, exacerbated by the collapse of the cannabis industry and the recent closure of the local grocery store. During the outreach and design phases of the project, ERRP identified many skilled individuals seeking training and employment in watershed restoration and forestry.

This project has the potential to use local contractors and consultants for work in erosion prevention, sediment control, and ecological restoration. MCRCD's procurement policy allows

the use of a "Triple Bottom Line" approach to consider cost, ecological benefits, and social benefits when selecting firms for work. This option increases the odds for local entities to participate in the project.

The ERRP engaged with the Laytonville community extensively over the last six years while developing the pilot project. This engagement has resulted in a well-informed and enthusiastic community excited about and supportive of the restoration efforts in their watershed. Letters showing support for the project are included in Exhibit 4.

PROJECT FINANCING

Coastal Conservancy	**$447,785**
To Be Determined	$1,392,415
Project Total	**$1,840,200**

Conservancy funding for the proposed project is expected to come from a FY 2022/23 appropriation to the Conservancy from the General Fund for the purposes of "urgent sea level rise adaptation and coastal resilience needs using nature-based solutions or other strategies" (Budget Act of 2022, SB 154 as amended by the Budget Act of 2023, SB 101). The coastal resilience funds are available for the purposes described in Section 52 of SB 155 (Chapter 258, Statutes of 2021). The proposed project is consistent with this funding source because it is a coastal resilience project that will restore and increase the resilience of the Tenmile Creek Watershed, part of the Eel River coastal watershed, and the human and wildlife communities it supports.

A grant application for the project has been submitted to the SWRCB and Caltrans, who are working together to address water quality enhancement measures associated with impacts from Highway 101 in the South Fork Eel River watershed. If the project passes the first round of review, MCRCD will submit a detailed proposal by December 2024 to SWRCB and Caltrans, seeking 1.4 million dollars. If additional funds are not secured, MCRCD will reduce the project scope to the project elements that can be completed for the amount of the Conservancy grant.

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 proposed project will be undertaken pursuant to Chapter 5.5 of Division 21 of the Public Resources Code, Section 31220. Pursuant to section 31220(b), the Conservancy may award grants in order to improve and protect coastal, coastal watershed and marine water quality and habitat, including projects that restore fish habitat within coastal watersheds (§ 31220(b)(2)) and reduce unnatural erosion and sedimentation of coastal watersheds (§ 31220(b)(4)). As

discussed above, the project will benefit anadromous salmonids and enhance coastal watershed habitat by reducing sediment delivery to Tenmile Creek with an expected total sediment savings of over 9,000 cubic yards over the next 10 years.

As required by Section 31220(a), staff have consulted with the NCRWQCB about the project and established that the project will help enhance the beneficial uses, such as cold-water fisheries, identified in the basin plan for the Eel River. Finally, consistent with section 31220(c), the project will include monitoring and evaluation of the restoration, once implemented to allow for adaptive management of gully repairs for three years.

This project will improve aquatic habitat for endangered pacific salmon by reducing sediment load in salmonid rearing habitat in lower Tenmile Creek.

CONSISTENCY WITH CONSERVANCY'S 2023-2027 STRATEGIC PLAN:

Consistent with **Goal 1.1 Commit Funding to Benefit Systemically Excluded Communities**, the proposed project was developed in collaboration with watershed residents who reside in a severely disadvantaged community (SDAC) and will enhance the resilience of the community to climate change and provide jobs to community members.

Consistent with **Goal 1.4 Incorporate Workforce Development in Our Projects**, the proposed project will provide training in restoration techniques and will work with local contractors and workers if feasible.

Consistent with **Goal 3.2 Restore or Enhance Habitats**, the proposed project will restore habitat in a coastal watershed, benefiting anadromous fish populations.

CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/STATE WATER QUALITY CONTROL PLAN:

The project is consistent with the North Coast Integrated Regional Water Management Plan Phase III (2014) Goal 3: Ecosystem Restoration and Enhancement, Objectives (5) Conserve, enhance, and restore watersheds and aquatic ecosystems, including functions, habitats, and elements that support biological diversity and (6) Enhance salmonid populations by conserving, enhancing, and restoring required habitats and watershed processes.

CEQA COMPLIANCE:

On August 16, 2022, the State Water Quality Control Board adopted a Statewide Restoration General Order (SRGO) for Clean Water Act Section 401 Water Quality Certification and Waste Discharge Requirements for Restoration Projects Statewide – Order No. WQ 2022-0048-DWQ (Order) and certified the Consolidated Final Restoration Projects Statewide Order Programmatic Environmental Impact Report (PEIR) (Exhibit 5). The Order establishes a permitting process for a set of environmentally beneficial restoration project types and associated measures to protect species and the environment. The order covers 10 categories of restoration projects.

To be permitted under the Order, a project must meet the Order's definition of a restoration project: an eligible project type that would result in a net increase in aquatic or riparian resource functions and/or services through implementation of relevant protection measures. A restoration project permitted by the Order may include multiple benefits, such as groundwater recharge, recreation, flood management, water quality improvement, and/or adaptation to climate change. The Order includes General Protection Measures and Design Guidelines that must be incorporated into permitted projects. In addition, the PEIR identifies additional avoidance measures to reduce and avoid potential project impacts.

Projects permitted under the Order can use the PEIR to comply with CEQA. If the party implementing an individual restoration project is a public agency, that agency will typically be the CEQA lead agency under the Order. If the implementing party is a private entity, that party will coordinate with the public agency with principal responsibility to approve the project and serve as the CEQA lead agency. In this case, MCRCD, a public entity, is implementing the project with ERRP, a private entity, and the NCRWQCB is the CEQA lead agency. If an individual restoration project would not result in new significant effects not considered in the PEIR and would not require additional mitigation measures, then no additional CEQA document is required. If an individual restoration project would have impacts that were not fully described in the PEIR or new impacts not examined in the PEIR, the CEQA lead agency would need to prepare an initial study to determine the appropriate additional environmental review document.

The NCRWQCB adopted a Notice of Applicability for Coverage under the PEIR (NOA) and Impact Avoidance Measures and Monitoring Plan and issued a Notice of Determination for the project on February 26, 2024 (Exhibit 6), finding that the project meets the Order's definition of a restoration project, is consistent with the activities listed in the PEIR, will not result in new significant impacts not covered in the PEIR, and will not require additional mitigation measures. NCRWQCB has permitted the project under the Order.

Conservancy Staff has reviewed the Order, PEIR, NOA, Impact Avoidance Measures and Monitoring Plan, and NCRWQCB's Notice of Determination for the project. The project meets the Order's definition of a restoration project and is consistent with the activities considered in the PEIR. The project and site-specific characteristics are consistent with the PEIR's environmental and regulatory setting. The project will not result in new significant impacts that were not covered in the PEIR, nor will it require additional mitigation measures.

The project will have potentially significant environmental effects in the areas of Biological Resources and Hydrology and Water Quality. The Conservancy finds that the avoidance measures identified in PEIR and Impact Avoidance Measures and Monitoring Plan will avoid, reduce, or mitigate these possible significant environmental effects to less-than-significant levels and that these avoidance measures have been required or incorporated into the project. These impacts are summarized below. The project will not result in any new significant effects nor require additional mitigation measures beyond what is included in the PEIR and Impact Avoidance Measures and Monitoring Plan. Therefore, no further CEQA documentation is required.

Findings for Potentially Significant Effects that will be Reduced to Less-Than-Significant Levels

Biological Resources- Temporary impacts to listed salmonids, northern spotted owl, and riparian habitat may occur because of construction activities. These impacts would be short-term and would be partially offset by long term reduction in sediment inputs and improvements to instream habitat in Tenmile Creek due to project actions. These potential short-term impacts would be minimized by the following General Protection Measure (GPMs) under the SRGO PEIR. In addition, if there is flow in the channel when construction in the channel occurs, the stream channel will be de-watered and any salmonids present will be removed and relocated after a coffer dam is constructed and a bypass pipe is installed, which will be allowed by a take Permit from NOAA and with permission of CDFW. GPMs are summarized below and are described in detail in the SRGO Final Order, available at: Final Order Attachment A (ca.gov)

GPM-2: Construction Work Windows. All work on the Vassar sediment control project will be done between June 1 and October 31 to avoid saturated ground conditions in meadow areas or wet conditions of roadbeds and stream crossings.

GPM-4: Environmental Awareness Training. All contractors associated with the Vassar sediment abatement project will be informed about sensitive plants and aquatic and wetland resources and how to avoid damaging them prior to implementation, especially those involved in construction of the fish habitat improvement structure that may affect ESA-listed salmonids.

GPM-5: Environmental Monitoring. A resource specialist will ensure that all applicable protective measures are implemented during project construction. The resource specialist will have authority to stop any work if they determine that any permit requirement is not fully implemented. Managers of different project elements will keep a daily journal of compliance with permit avoidance measures and record related activities and those records will be part of deliverables and kept on file by ERRP.

GPM-7: Environmentally Sensitive Areas. Monitoring, flagging, or fencing will be used, where appropriate, to minimize disturbance to environmentally sensitive areas (e.g., waters and wetlands).

GPM-8: Prevent Spread of Invasive Species. Construction equipment will be thoroughly cleaned before being brought to the site to make sure no invasive weed seeds or pathogens are imported. Post project monitoring will make sure that pests like star thistle were not introduced and make sure they are removed to prevent their establishment and spread. All mulch or straw used to control surface erosion after project completion will be certified weed-free.

GPM-9: Practices to Prevent Pathogen Contamination. The Guidelines for Restoration and Fieldwork published by the California Oak Mortality Task Force will be followed to make sure that equipment is free of pathogens and has been thoroughly cleaned to prevent importation of sudden oak death syndrome.

Hydrology and Water Quality- Temporary impacts to water quality due to an increase in erosion from ground disturbance and due to leaks and spills from equipment could occur because of construction activities. These impacts would be short-term and would be partially

offset by long term reduction in sediment inputs to Tenmile Creek due to project actions. These potential short-term impacts would be minimized by the GPMs listed below.

GPM-6: Work Area and Speed Limits. Staging areas for equipment and materials will be demarcated in previously disturbed areas to minimize disturbance to vegetation and soil from staging (See WQHM-1 below). Work vehicles shall follow speed limits to minimize dust (see GPM-12 below).

GPM-10: Equipment Maintenance and Materials Storage. All construction equipment used on the project shall be maintained in good working order with no signs of leaks of fuel, oil or any other fluids. Equipment will be inspected daily, and any sign of impairment will lead to a stop work order until appropriate repairs are made. Absorbent pads will be placed under equipment when it is not being operated to detect leaks and prevent contamination of soil. Absorbent padding, a tarp, and a bucket will be the minimum contents of spill kits kept on sight. Fueling and the addition of fluids necessary for equipment operation will take place at least 100 feet from any water course. All fuel and other fluids needed for equipment operation will be in leak-proof containers and properly recycled or disposed of off-site after products within them have been used.

GPM -11: Material Disposal. No refuse or debris will be left at the job site upon project completion. Hazardous materials, such as fuel and lubricants for equipment, will be handled with the utmost caution. Containers for hazardous materials will be closely controlled and disposed of appropriately off site at an appropriate facility.

GPM-12: Fugitive Dust Reduction. Vehicles traveling to and from the job site will travel at a speed of 25 mph or slower on Hargus Road and 15 mph or less on Tenmile Creek Road to reduce fugitive dust caused by traffic. All project materials will be secured in staging areas and no packaging or empty containers will be left untended that could be carried away by the wind. During road erosion control activities, a water truck will be used to control dust from road grading and culvert replacement activities.

GPM-13: Trash Containment and Removal. All trash generated by any activity related to the Vassar sediment abatement and fish enhancement project activities will be immediately confined in sealed trash containers and placed at the staging area. No trash will be left at the job site or at the staging area at the end of the project.

GPM-14: Project Cleanup After Completion. All construction materials, work pads and trash receptacles will be removed from all job sites at the completion of work and all sites fully treated to prevent erosion.

GPM-15: Revegetate Disturbed Areas. All temporarily disturbed areas will be de-compacted and seeded/planted with an assemblage of native riparian, wetland, and/or upland plant species suitable for the area.

WQHM-1: Staging Areas and Stockpiling of Materials and Equipment. Staging of materials will be in previously disturbed roadside areas suitably wide for the purpose. All equipment and materials like road rock, boulders for outlet armoring and filter fabric materials like coir will be restricted to these sites prior to implementation. Maintenance of equipment will take place

outside riparian zones and at least 100 feet from any water course. Any containers of fuel, lubricants or other hazardous materials will be disposed of safely at appropriate facilities.

WQHM-3: Erosion and Sediment Control Measures. Erosion and sediment control measures are discussed above in GPM-6, GPM-12, and GPM-14. Best management practices that will be employed to reduce the risk of sediment contributions to the creek include application of rice straw or weed-free mulch to bare soil areas at project completion or in wet periods during construction; sprigging, coppicing, and planting ash trees at culvert inlets and outlets to prevent erosion; and caging and protecting over 200 native tree seedlings and saplings. For instream work, a ramp from Tenmile Creek road will be constructed so that heavy equipment can access the stream bed to construct the large woody debris and boulder structure. The slope will be recontoured after equipment leaves the channel and mulch and weed-free straw will be used to cover any bare areas. No soil or pollutants will be left in the stream bed after construction is complete.

WQHM-4: Hazardous Materials Management and Spill Response Plan. ERRP will create an Accidental Discharge of Hazardous Materials memo for the project and provide it to project site managers. It will incorporate GPM-10, 11, and 14.

WQHM-6. Accidental Discharge of Hazardous Materials. Following an accidental discharge of a hazardous material, the project site manager will notify the local emergency response agency (911), the Office of Emergency Services, and the NWQRCB.

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