

**MITIGATED NEGATIVE DECLARATION
SEQUOIA NATIONAL FOREST, KERN RIVER RANGER DISTRICT
OSA MEADOW RESTORATION PROJECT**

**PURSUANT TO THE TITLE 14, CALIFORNIA CODE OF REGULATIONS
SECTION 15000, et seq.**

PROJECT TITLE: Osa Meadow Restoration Project

LEAD AGENCY: Central Valley Regional Water Quality Control Board

APPLICANT: Sequoia National Forest, Kern River Ranger District

PROJECT DESCRIPTION:

Sequoia National Forest, Kern River Ranger District (hereinafter Discharger) will restore channel/floodplain connectivity and function of the incised reaches of Osa Meadow, approximately 19 acres of the 55-acre meadow area, by filling the incised channel/gully to restore the base level of the channel to the historic meadow elevation. The project is part of a proposed greenhouse gas research project in collaboration with the Sierra Meadow Restoration Research Partnership. The project area is being monitored before and after restoration for greenhouse gas emissions, soil carbon sequestration, groundwater levels, and vegetation.

PROJECT LOCATION:

The project site is located in the Sequoia National Forest, Kern River Ranger District in Tulare County.

MITIGATION MEASURES:

This subsection includes the full text of project-specific mitigation measures identified in the Initial Study/Proposed Mitigated Negative Declaration.

Mitigation Measures to Protect Biological Resources (Section 4):

4a. A USFS biologist and/or hydrologist will be present to ensure compliance with all mitigations.

4b. Equipment will remain on road bed as much as possible during construction.

4c. Spill Plan: A spill plan will be in place with absorbent material on hand to mop up any accidental spills. Vehicles will be inspected to make sure all are in good functioning order (no leaks) before being brought to the site. All fueling, maintenance, and staging of equipment and vehicles will occur outside of active stream channels, above the top of the bank, and outside of riparian areas. Heavy equipment and pumps will be checked daily for leaks. Equipment with leaks will not be used until leaks are fixed. Any leaks, drips, or spills shall be immediately controlled to prevent entry into waterways, ditches, or other tributaries to waterways. The operator will have spill control kits on each piece of heavy equipment in order to quickly isolate and collect any spill should it occur.

4d. There will be no equipment use during rain events or soon thereafter. Construction would occur during the driest time of the year to avoid rain and higher stream flows. If significant rain

occurs during construction; steps will be taken to control erosion and operations will be temporarily shut down. The project will obtain coverage under the "NPDES General Permit for Construction Activities" through the State Water Resources Control Board.

4e. Limited operating period: Project work will not commence prior to July 15. Construction will occur under hot and dry conditions when the likelihood of migrating frogs is low.

4f. Locally collected native graminoids and willows will be planted along the channel and in high-stress areas. Bare areas will be mulched. Riparian vegetation that would be disturbed by project activities will be removed, conserved, and re-planted. Erosion control fabric will not be used in any of the area to be restored as there is much better success planting native sedges, grasses, or rushes; seeding with native species; and mulching using weed free straw or other native mulch materials.

4g. To protect MYLF, a biologist will survey the site prior to start of work and following rains during project implementation. If MYLF are detected in the work area, USFWS will be notified and project work will cease until the frog is moved out of harm's way. If, at any time, a mountain yellow legged frog is discovered, all work in the immediate area will cease. The frog will be placed in a sterile transport container, photographed for identification purposes, and be relocated upstream to the nearest appropriate habitat. GPS location will be noted for reference. USFWS will be contacted within 24 hours of discovery. If frogs are discovered, blocking nets will be placed to block migrating frogs upstream and downstream of the work area, and the whole area will be surveyed daily for frogs. Therefore, the effect of crushing or disturbing frogs is expected to be discountable.

4h. A botanical survey will be conducted prior to construction. Sensitive plants will be flagged and avoided and/or transplanted. The perimeter of populations of sensitive habitats will be marked with flagging to avoid trampling or impact to the species during project implementation. Construction personnel will be educated on the sensitivity of the species which are to be avoided.

4i. Noxious weed & disease prevention: All equipment will be steam-washed and inspected for noxious weeds and dirt prior to arrival at project site. Vehicles used to transport personnel and materials; personnel clothing and footwear; or any other equipment or hand tools used will be cleaned to remove soil, seed, and plant materials before entering the Forest. Boots and/or waders used by personnel will be decontaminated prior to entry into the meadow to help mitigate the spread of chytrid fungus. Any noxious weed occurrences found during project work will be reported to the Forest Botanist. Only certified weed-free materials may be brought into the site, and only to the minimal extent needed to stabilize bare soil. The project area will be monitored for three years after construction to identify and remove noxious weeds.

Mitigation Measures to protect cultural resources (Section 5):

5a. Archaeological site boundaries near the project work area would be re-flagged and avoided during construction. A project manager on site at all times will ensure the avoidance of sites, and all project personnel would be trained to avoid sites.

5b. An archeologist would be on-site during certain construction activities near sensitive areas.

5c. Although a surface survey has been completed, this does not fully eliminate the chance of subsurface remains within the project boundary. If project ground disturbance exposes a cultural deposit, it is recommended that the disturbance stop until an archaeologist can evaluate the material. In the event that human remains are discovered during project activity, existing law requires that project managers contact the Tulare County Coroner. If the remains are determined to be of Native American origin, both the Native American Heritage Commission and any identified

descendants shall be notified (Health and Safety Code Section 7050.5, Public Resources Code Section 5097.94 and 5097.98).

Mitigation Measures to protect geology and soils (Section 6):

Standard mitigation measures have been developed under consultation with soil scientists and engineers as an integral component of meadow floodplain restoration. These mitigation measures have been monitored and refined based on previous projects of this type (Last Chance Creek, 2002-5; Red Clover/McReynolds, 2006; Long Valley Creek, 2008; etc).

6a. Construction would occur during the low flow period, and coincides with the most favorable moisture conditions to the depth of borrow site excavation. The subsurface soil material excavated will be used to plug the adjacent channel incision. This material requires enough moisture to allow for compaction to background condition of the adjacent native soil. (The purpose of compaction is to preclude subsidence of the plug material during saturated conditions. Subsidence can lead to the initiation of erosion on the plugs.) Utilization of onsite fill material allows the best match of soil types at the least cost. Material too wet to efficiently transport and work would be avoided. The subsurface (compacted) portions of the plug are constructed using the 'layer lift' method, which entails spreading the material in a thin veneer over the general area of the plug with each delivered bucket load of material. This repeated action, with occasional re-cutting of the working surface allows for efficient wheel compaction without supplemental equipment.

6b. Topsoil and any organic material in the area of excavation will be removed to a depth of approximately one foot and stockpiled adjacent to the plugs. When the plugs have been constructed to the design elevation, the plug surface will be cross-ripped to a depth of 12" to restore deep infiltration capacity. Stockpiled topsoil with associated organics and native seed will be spread across the plug with a low ground-pressure track loader. The final pass with equipment is to dress and roughen the topsoil surface for microclimate roughness and to fully incorporate the topsoil with the surface of the subsoil.

6c. All desirable plant material that would be excavated or buried in plugs will be removed and transplanted. Locations of transplants are prioritized according to need for maximum soil protection in bare areas and areas of potentially high stress.

6d. Equipment travel into the project area will be restricted to the designated access route shown on the plan view map. Following construction, routes from the borrow sites to plug areas that may have been compacted by equipment travel will be scarified perpendicular to expected surface water flow and dressed with scattered organic material.

6e. Staging areas and temporary haul routes used during the project will be minimized to minimize soil compaction and disturbance to the greatest extent possible. After construction, they will be sub-soiled, perpendicular to surface flow directions, to the full depth of compaction to restore soil porosity. Areas with residual meadow sod will only be lightly scarified to preserve sod integrity. The emphasis is on the least soil disruption while loosening the soil. Extensive mixing or plowing can have a negative effect on soil microorganisms. This technique has been successful in loosening the soil, restoring soil porosity, providing a high infiltration capacity, and thereby reducing cumulative watershed effects.

6f. The project will require re-vegetation. Access routes are expected to have residual sod, and thus, not require seeding, but may receive mulching and possibly seed depending on the condition of the sod. Re-vegetation will consist of transplanting as many live plants as possible, planting locally collected native seed at a rate of 15 pounds per acre, and mulching with certified weed-free straw or other local native mulch material.

6g. The project includes rest from grazing in disturbed areas for up to three years after construction in order to allow the newly planted vegetation to become established. Currently, the project area is not grazed, so this mitigation requires no further action.

Mitigation Measures to protect the environment from hazards and hazardous materials (Section 8):

8a. Equipment will be re-fueled and serviced at the designated staging area, which is outside of the riparian area and meadow. No fuel will be stored on-site. In the event of an accidental spill, hazmat materials for quick on-site clean-up will be kept at the project sites during all construction activities and in each piece of equipment. For fire prevention, a trash pump will be on-site.

Mitigation Measures to protect hydrology and water quality (Section 9):

Best Management Practices (BMPs), as described in this document, have been effective in protecting beneficial uses of water within the affected watersheds. These practices have been applied in other projects on the Sequoia National Forest. Where proper BMP implementation has occurred there have not been any substantive adverse impacts to beneficial uses. The practices specified herein are expected to be equally effective in maintaining the identified beneficial uses. The following management requirements are designed to address the watershed management concerns. All of the BMPs are from the Forest Service publication "Water Quality Management Handbook" (*R5 FSH 2509.22 – Soil and Water Conservation Handbook, Chapter 10 – Water Quality Management Handbook. 2011.*).

BMP 2.13 Erosion Control Plan: Implementation of this BMP is required since the restoration site is greater than 50 square feet located in a riparian area and wheeled or tracked equipment will be utilized for construction. This plan is further discussed in detail under Appendix A of the hydrology report.

BMP 2.5 Water Source Development and Utilization: The objective of this BMP applies to dust abatement and other management activities requiring the use of water while protecting and maintaining water quality. Water may be needed to assist in construction of structures. Approved drafting sites designated by the district hydrologist would be utilized.

BMP 2.11 Equipment Refueling and Servicing: This BMP prevents pollutants such as fuels, lubricants, bitumen and other harmful materials from being discharged into or near rivers, streams and impoundments, or into natural or man-made channels. Servicing and refueling activities will be located a minimum of 100 feet away from the meadow edge. Site specific locations for equipment fueling will be identified prior to or during project implementation. A non-porous mat or equivalent would be used for the refueling at the staging area.

BMP 7.1 Watershed Restoration: The objective of this BMP is to repair degraded watershed conditions and improve water quality and soil stability. Restoration measures described herein reflect state-of-the-art techniques and have been chosen to custom fit the unique hydrologic, physical, biological, and climatic characteristics of Osa Meadow. The proposed design for restoration of Osa Meadow restores the meadow condition and hydrologic function to the watershed as described in this document.

BMP 7.4 Forest and Hazardous Substance Spill Prevention Control and Countermeasure (SPCC) Plan: The objective of this BMP is to prevent contamination of waters from accidental spills. BMP 7.4 will be implemented when a total oil product at a site exceeds 1,320 gallons or any single container exceeds 660 gallons. The forest has a SPCC spill plan designed to guide the emergency response to spills during construction. Please refer to the SPCC for further information regarding pollutants and their associated spill plan design for this project.

BMP 7.6 Water Quality Monitoring: The objective of this BMP is to collect representative water data to determine base line conditions for comparison to established water quality standards, which are related to beneficial uses for the particular watershed. This BMP is implemented through establishment of Stream Condition Inventory (SCI) site prior to project implementation to establish a pre-project condition.

BMP 7.8 Cumulative Off-site Watershed Effect: This BMP serves to protect the identified beneficial uses of water from the combined effects of multiple management activities. Beneficial uses and effects have been documented in the Hydrology report. Impacts of past and present activities, including impacts of the proposed future management activities, were considered in the evaluation of the watershed area analysis and are summarized in the attached hydrology report.

Monitoring & Reporting

Monitoring is a means to determine if conditions in Osa Meadow are meeting or moving toward the desired conditions. Extensive surveys have been conducted to document the existing conditions within the meadow and stream channel. Amphibian surveys were performed in 2010, and again in 2015. Additional monitoring would take place immediately after the project is implemented and annually for five years to document the effectiveness of the project. This monitoring would be conducted by Kern River Ranger District staff and project partners, and include: ground water, carbon sequestration/greenhouse gas emissions, sedimentation, planted vegetation success or mortality, noxious weeds, the integrity of the restoration, and the presence of new headcuts.

During construction, Plumas Corporation staff would be on-site continuously, and responsible for ensuring that Best Management Practices are followed, mitigations measures are implemented, and water quality leaving the project area is sampled (in the event of surface water during construction). Once the project is completed, a report on construction will be sent to the funding agency and to any permitting agencies that require it. The report will outline how environmental protection requirements were met.

FINDING:

Based on the Initial Study prepared for the project, the California Regional Water Quality Control Board, Central Valley Region has determined that potential project impacts on the environment would be mitigated to a less than significant level through incorporation of mitigation measures and therefore, the preparation of an Environmental Impact Report is not required.

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Date

