

Mitigation Monitoring Plan

Sinkyone Wilderness State Park Coastal Watersheds Road Removal Project

INTRODUCTION

Background An Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the California Department of Parks and Recreation (DPR) to evaluate the potential environmental effects of the proposed Coastal Watersheds Road Removal at Sinkyone Wilderness State Park (SWSP), Mendocino and Humboldt counties, California. The IS/MND was prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 *et seq.*, and the State CEQA Guidelines, California Code of Regulations (CCR) §15000 *et seq.* CEQA requires all public agencies to adopt mitigation monitoring plans when they approve projects with Mitigated negative Declarations or Environmental Impact Monitoring plans can include reporting if reporting to permitting agencies is required to ensure mitigations are implemented and effective. The plan must be designed to ensure project compliance with mitigation measures during project implementation. If any project impacts extend beyond the project implementation phase, long-term mitigation monitoring should be provided in the monitoring plan.

Purpose The Sinkyone Wilderness State Park Coastal Watersheds Road Removal Project Mitigation Monitoring Plan will be used to ensure that all mitigation measures required by the Mitigated Negative Declaration and agreed to by the project proponent are completed as part of project construction and are maintained in a satisfactory manner during and following project implementation. This plan is designed in a table format for ease of use by the individuals or groups responsible for implementation of mitigation measures. The table identifies the potential impacts, the corresponding mitigation measures, the individual or group responsible for implementation, the time frame for implementation, and assigns a person or group who is responsible to confirm that the mitigation was implemented as required.

PROJECT DESCRIPTION

The project involves full road recontouring of approximately 44 miles of abandoned, unstable inner-gorge service and skid roads within the Coastal Watersheds of Sinkyone Wilderness State Park (SWSP). The work includes excavation of embankment fill from roads and stabilization of excavated materials on cutbench to fully recontour natural (pre-disturbance) topography. The project also includes removal of fill material from 187 stream crossings associated with those service and skid roads. Stream crossing removal includes excavation of road and landing fill from road/stream channel crossings and stabilization of excavated materials. Stream channel bed, banks, and adjacent slopes are to be restored to their pre-crossing configuration and longitudinal stream gradient would be reestablished throughout the crossing site.

Exhibit 4: Mitigation Monitoring Program

SWSP is located in the coastal mountains of northwestern Mendocino County and southwestern Humboldt County and is part of the North Coast Redwoods District of California State Parks.

The road removal sites are completely within an area that was clear-cut and tractor logged prior to DPR ownership. In some locations, the clear-cut blocks are adjacent to old growth forest. The sites contain a dense network of skid roads that were abandoned after logging operations ceased in the early 1980's. The sites have numerous unstable stream crossings and inboard road construction that interrupt and concentrate runoff onto slopes prone to landslides. Many gullies and landslides exist that are related to the road network proposed for removal. Numerous active landslides intersect the roads and many are located along the slope between the roads and the stream channels. After the completion of this project, the network of abandoned logging roads would be removed, and the Park would then be eligible for reclassification as State Wilderness. The project is intended to diminish the impacts of abandoned roads to the natural resources of the SWSP and associated coastal watersheds.

MITIGATION MONITORING PLAN

Management The North Coast Redwoods District of California State Parks will be responsible for overseeing implementation and administration of the Mitigation Monitoring Plan (MMP) for the Sinkyone Wilderness State Park Coastal Watersheds Road Removal Project. The North Coast Redwoods District Roads, Trails & Resources Engineering Geologist will manage and implement the MMP.

Dispute Resolution In the event that a dispute arises over what constitutes compliance with the MMP, the District Environmental Coordinator will be responsible for determining the best approach to resolving the dispute. Any dispute will be outlined and included as an attachment to this document.

Enforcement All mitigation measures listed in the MND must be implemented by the responsible parties and checked off in this document as completed by the Engineering Geologist. During implementation, if contractors conducting the road removal work do not comply with the mitigation requirements, stop work orders will be issued.

Exhibit 4: Mitigation Monitoring Program

MMP CHECKLIST

DATE:

MONITORING CONDUCTED BY

MITIGATION MEASURES AIR-1

- All equipment engines would be maintained in good condition, in proper tune (according to manufacturer’s specifications), and in compliance with all State and federal requirements.
- Traffic speed on unpaved roads would be limited to 15 miles per hour (mph).
- Excavation and grading activities would be suspended when sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or when dust from construction might obscure driver visibility on public roads.
- No more than eight pieces of heavy equipment would operate at the sites at the same time. No more than ten service vehicles would enter the project site at one time.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

MITIGATION MEASURES AIR-2

- The cabs of heavy equipment, including seals, windows, and doors, would be kept in good serviceable condition to provide protection from exhaust and dust. Seals, windows and doors would be kept in good condition to provide protection when necessary.
- Detected exhaust leaks would be repaired immediately to protect workers from exhaust exposure and reduce fire hazard.
- Project inspectors would position themselves upwind of heavy equipment operations to reduce exposure to exhaust and dust. Equipment operators and inspectors would use dust masks to reduce inhalation of particulates, if they cannot position themselves upwind.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

Exhibit 4: Mitigation Monitoring Program

MITIGATION MEASURES BIO-1 (PLANTS)

- Plant surveys have been conducted throughout SWSP on all road removal and stream crossing construction sites and special status plant occurrences have been mapped and flagged. Lists 1B and 2 plants would be avoided and no modifications would occur to the canopy cover or soils adjacent to individuals or populations. As previously noted, the exception to this is at Point 4 (See Sinkyone Botanical Survey Map) where a very small portion of a population of *Sidelcea malchroides* would be impacted by the construction of a temporary access road. However, this impact would not significantly impact the population.

Mitigation timeline: During project planning
Mitigation to be implemented by: District Ecologist
Mitigation to be monitored by: District Environmental Coordinator
Mitigation verified by:

MITIGATION MEASURES BIO-2 (FISH)

- Stream crossing excavations would take place in dry channels or in channels where stream flow is below the minimum required for fish survival. Excavations have been designed to limit negative effects on water quality to the maximum extent practicable.
- In some crossings, where the stream is flowing at a slow rate and cannot be captured and diverted, filter structures would be installed downstream to filter turbid discharge from the worksite. In other crossings, where flow is sufficient to be intercepted, a small diversion dam would be built upstream and stream flow piped around the worksite and discharged into the stream below the work-site.
- On roads where potential sediment delivery to streams exists, construction activities after October 15th would proceed using general guidelines recommended by the National Marine Fisheries Service (NMFS) on road removal projects located on nearby federal lands, where feasible.
- Work in the rainy season (after October 15th) would only occur during dry spells, with materials for surface mulching on-site at all times. Work would be conducted so that no more than one-half day would be required to finish all earth moving and mulching work. All access roads would be winterized prior to any additional earth moving tasks.
- Any disturbed soil adjacent to stream channels would receive evenly distributed mulch coverage with masticated brush and trees to reduce sheet erosion. Mulch generated during the clearing phase of the rehabilitation work would be used on-site, to the maximum extent practicable.
- A DPR-qualified biologist or resource ecologist would periodically monitor work in high-risk sedimentation areas (as identified by the District Resource Ecologist) and consult with the on-site Project Manager regarding threshold sediment (i.e., quantity, quality, and duration) that may effect species of special concern at a specific site. Mitigation measures, as indicated above, would be modified as necessary to reduce

Exhibit 4: Mitigation Monitoring Program

potential sedimentation impacts to a less than significant level. Consultation with USFWS and/or CDFG would be conducted on an "as needed" basis.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

MITIGATION MEASURES BIO-3 (BIRDS)

- Work at sites within one-quarter mile of potential habitat for marbled murrelet would only take place between September 15 and March 24. The site maps identify start dates for protection of murrelets at known old-growth groves. Additional murrelet restrictions would be documented in a Technical Assistance letter with the USFWS.
- To avoid noise disturbances to Northern spotted owl, work within one-quarter mile of suitable roosting and nesting habitat would only occur between July 10 and January 31. Because the entire project is within one-quarter mile of potential habitat, all work would occur within this timeframe.
- Prior to operations the DPR inspector would be instructed in the identification of raptor nests (both occupied and unoccupied) and raptor breeding behavior. During operations the inspector would be responsible for assuring that no raptor nests are impacted by the proposed treatments.
- If an unoccupied raptor nest is detected then the nest tree would not be disturbed and the location reported to the District Resource Ecologist.
- If an occupied raptor nest is detected then the DPR inspector would cease operations within ¼ mile of the raptor nest and immediately notify the District Resource Ecologist. A minimum 300-foot habitat retention zone would be established around all active raptor nests. No operations would be allowed within this zone. In addition a ¼ mile temporal operation zone would be established around all raptor nests from February 01 though August 31. The DPR, through the District Ecologist would reserve the right to consult with DFG on site specific and species-specific mitigation measures. Any such changes would be amended into the MND, if necessary.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

Exhibit 4: Mitigation Monitoring Program

MITIGATION MEASURES BIO-4 (TREES)

- Equipment operators would be required to avoid striking retained trees to minimize damage to the tree structure or bark. Contract specifications would establish fines for any damage to retained trees and fines would be levied on the contractor for such damage.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

MITIGATION MEASURES CULT-1

- Site-specific surveys have been conducted to locate potentially significant historical resources. No excavation would occur within identified site boundaries. A DPR-qualified cultural resource specialist would monitor the identified sites when equipment travels across the site to access other project areas, or fill is being placed to cap the site. A witness layer of geotextile fabric would be placed on the existing ground surface prior to any fill being placed. If any excavation activities are proposed in the area of CA-MEN-1925, a detailed archaeological testing program would be implemented to determine the level of significance, integrity, and boundaries of the site. Required avoidance and/or mitigation measures, based on the results of testing, would be identified and implemented following approval of a DPR-qualified archaeologist, and Sinkyone Intertribal representative, if appropriate.
- In the event that previously undocumented cultural resources are encountered during project construction (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic trash), work within the immediate vicinity of the find would be temporarily halted or diverted. Work would not continue at the site until a DPR-qualified cultural resource specialist, in consultation with the Sinkyone Intertribal representative, if appropriate, has evaluated the find and implemented appropriate treatment and disposition of the artifact(s).
- Once any significant cultural resources are found in a project location, a DPR-qualified historian, archaeologist and/or appropriate Native American Tribal representative would monitor any ground-disturbing work in that area from that point forward.

Mitigation timeline: During project planning and construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

Exhibit 4: Mitigation Monitoring Program

MITIGATION MEASURES CULT-2

- In the event that human remains are discovered, work would cease immediately in the area of the find and the project manager/site supervisor would notify the appropriate DPR personnel. Any human remains and/or funerary objects would be left in place or returned to the point of discovery and covered with soil. The DPR Sector Superintendent (or authorized representative) would notify the County Coroner, in accordance with §7050.5 of the California Health and Safety Code, and the Native American Heritage Commission (NAHC) or Native American Tribal representative. If a Native American monitor is on-site at the time of the discovery, the monitor would be responsible for notifying the appropriate Native American authorities.
- If the coroner or tribal representative determines the remains represent Native American interment, the NAHC in Sacramento and/or tribe would be consulted to identify the most likely descendants and appropriate disposition of the remains. Work would not resume in the area of the find until proper disposition is complete (PRC §5097.98). No human remains or funerary objects would be cleaned, photographed, analyzed, or removed from the site prior to determination
- If it is determined the find indicates a sacred or religious site, the site would be avoided to the maximum extent practicable. Formal consultation with the State Historic Preservation Office and review by the NAHC/Tribal Cultural representatives would also occur as necessary to define additional site mitigation or future restrictions.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

Exhibit 4: Mitigation Monitoring Program

MITIGATION MEASURES GEO-1

- Inspectors trained in landform restoration would oversee the work to ensure that the final landforms have a natural appearance and stable geometry, to the greatest extent feasible.
- The recontoured slopes would be compacted in lifts to prevent loose material from sloughing off, then smoothed and raked to provide uniform drainage and prevent concentration of flow.
- Bare ground would be mulched to minimize surface erosion, using vegetation removed from the road prism prior to road recontouring.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

MITIGATION MEASURES GEO-2 (STREAM CROSSINGS)

- Work would generally be conducted during the dry season when stream flow is minimal or non-existent.
- In channels with flowing water, a small collection pool would be created, using sand bags, to eliminate the potential for sediment transport, and the flow diverted around the site using flexible poly-pipe. The flow would be returned to the channel directly below the work site.
- If flow is dispersed or subsurface, a sediment filter would be temporarily placed downstream from the crossing excavation. The collection pool, pipe, and filter would be removed following the excavation.
- Mulch would be preferentially applied to stream crossing sites to reduce the delivery of sediment from surface erosion on crossing side-slopes. All exposed soil within 100 feet of a stream channel would have mulch applied to provide a minimum of 70% soil cover. Mulch applied at crossing sites would be pressed into contact with the ground surface.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

MITIGATION MEASURES GEO-3

- All workers would be advised of high-risk areas and cautioned to use extreme care while working in those areas.
- All heavy equipment operators would be required to have experience working in conditions similar to the proposed project.
- A qualified inspector, trained in landform rehabilitation, would monitor equipment operation.

Exhibit 4: Mitigation Monitoring Program

- Hand crews or other workers on the ground would be required to position themselves upslope of sites where excavations are actively under construction.
- Heavy equipment operators would be cautioned to minimize their exposure to unstable slopes that may occur naturally or result from the earthmoving process. Inspectors would continually evaluate slope geometry and caution operators if unstable conditions are indicated.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

MITIGATION MEASURES GEO-4

- In the event that previously undocumented unique paleontological resources or geologic features are encountered during project construction, work within the immediate vicinity of the find would be temporarily halted or diverted. Work would not continue at the site until the engineering geologist responsible for the project can make a determination of significance.
- If evidence of soil displacement is observed along any faults that might be encountered during the grading, work would be halted or diverted at that site until a qualified paleoseismologist with background in soil stratigraphic can conduct an analysis and make a recommendation.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

MITIGATION MEASURES HAZMAT-1

- All equipment would be inspected for leaks immediately prior to the start of construction, and regularly inspected thereafter until equipment is removed from park premises. Leaks that develop would be repaired immediately in the field or work with that equipment would be suspended until repairs could be made.
- The contractor(s) would prepare an emergency spill response plan prior to the start of construction and maintain a spill kit on-site throughout the life of the project. This plan would include a map that delineates construction areas, where refueling, lubrication, and maintenance of equipment may occur. In the event of any spill or release of any chemical in any physical form on or immediately adjacent to the project sites or within SWSP during construction, the contractor would immediately notify the appropriate DPR staff (e.g., project manager or supervisor). Appropriate agencies would be notified in the event of significant spillage.
- Equipment would be cleaned and repaired (other than emergency repairs) outside the park boundaries. All contaminated water, sludge, spill residue, or

Exhibit 4: Mitigation Monitoring Program

other hazardous compounds would be disposed of outside park boundaries, at a lawfully permitted or authorized designation.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

MITIGATION MEASURES HAZMAT-2

- If there is evidence of spillage from or free product in barrels discovered on or adjacent to the project sites, work would be halted or diverted from the immediate vicinity of the find and the District’s hazardous materials coordinator would be contacted. Work would not resume until required avoidance and/or mitigation measures have been identified and implemented. Removal of all contaminants, including sludge, spill residue, or containers, would be conducted following established DPR procedures and in compliance with all local, state, and federal regulations and guidelines regarding the handling and disposal of hazardous materials.
- Abandoned vehicles located within the project sites would be removed and disposed of under the supervision of the hazardous materials coordinator.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

MITIGATION MEASURES HAZMAT-3

- A fire safety plan would be in place prior to the start of any construction, including availability of identified fire suppression equipment and any required employee training.
- Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers would be required for all heavy equipment.
- Construction crews would be required to park vehicles away from flammable material such as dry grass and brush. At the end of each workday, heavy equipment would be parked over mineral soil to reduce the chance of fire. All equipment would be required to be mechanically sound and free of flammable debris.
- Park staff would be required to have a State Park radio on site, which allows direct contact to California Department of Forestry and Fire Protection and centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector

Exhibit 4: Mitigation Monitoring Program

Mitigation to be monitored by: Project Inspector
Mitigation verified by:

MITIGATION MEASURES HYDRO-1

- Cutbanks exposing seeps or springs would not be recontoured. Instead, the embankment fill adjacent to the wet area would be exported to nearby dry sections of the road. An outsloped cutbench would extend along all wet road sections. No vegetation would be removed within 25 feet of a spring that emanates from a cut slope.
- If a long section of road were not suitable for full recontouring, the excavator would remove the embankment fill and load it into a dump truck to be end-hauled to a stable location on a nearby site proposed for recontouring site. The excavator and dozer recover the entire embankment fill and outslope the cutbench of the road. On steep linear road grades, broad swales would be constructed along the road at appropriate locations to convey flow into natural drainage features below the road.
- Road sections immediately adjacent to stream crossings would not be fully recontoured. Instead, the fill would be tapered toward the crossing and the cutbank laid back to a more stable slope. This reduces the slope on each side of the crossing, decreasing the chance for direct sediment delivery if a post-treatment slope failure should occur.
- If the stream has running water, it would be diverted away from excavation areas to reduce turbidity and returned to the channel immediately downstream. Where channel widths are wide enough, a berm would be constructed to divert water away from the work area. Where channels are narrow, a small diversion dam would be built upstream and stream flow piped around the worksite and discharged into the stream below the worksite. Instream filters would be installed where diversion is not possible. The project inspector would carefully monitor the structures to prevent failures.
- If the crossing has already partially failed, a small road bench would be reconstructed along the upstream end of the crossing to allow access to both sides of the crossing. A minimal amount of fill would be used and streamflow (if present) piped around the site or a culvert installed to convey streamflow under the temporary road.
- Logs and rocks would not be placed in the excavated channel because they cause lateral migration resulting in bank erosion. Instead, logs would be placed on the channel margins or span the removed crossing.
- All temporary berms, ponds, and piping would be completely removed at the completion of construction.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

Exhibit 4: Mitigation Monitoring Program

MITIGATION MEASURES HYDRO-2

- Following October 15th of any work year, any roads remaining open to service vehicles would be winterized by installing rolling dips at all stream and swale crossings; portions of the outside berm would be removed to allow drainage and any unstable fill would be pulled back from stream crossings.
- Following October 15th of any work year, work would not proceed in any area where soils have become saturated. Construction work would generally be limited to the dry periods of the year, when rain is unlikely.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by:

MITIGATION MEASURES NOISE-1

- Construction activities would generally be limited to the hours between 6 a.m. and 6 p.m.; construction activities adjacent to campgrounds would be limited to the hours between 8 a.m. and 5 p.m.
- Internal combustion engines used for any purpose at the job site would be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction would utilize the best available noise control techniques (e.g., engine enclosures, acoustically-attenuating shields or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary.
- Stationary noise sources and staging areas would be located as far from sensitive receptors as possible. If they must be located near sensitive receptors, stationary noise sources would be muffled to the extent feasible and/or, where practicable, enclosed within temporary sheds.
- Construction workers would be required to wear earplugs during operations, if not otherwise protected.

Mitigation timeline: During project construction
Mitigation to be implemented by: Contractor and Project Inspector
Mitigation to be monitored by: Project Inspector
Mitigation verified by: