

**Tin House Road Project
Julia Pfeiffer Burns State Park
Mitigation Monitoring and Reporting Plan
January 2006**

Mitigation Measure	Timing	Responsible for Implementing Mitigations	Responsible for Insuring Implementation	Required for Task to be Complete	Date Completed	Status / Comments
Air Quality						
All active construction areas will be watered at least twice daily during dry, dusty conditions.	Duration of project construction	Contractor	Project Manager, Sector Maintenance Chief	Water truck on site for duration of active construction.		
All trucks hauling soil, sand or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard.	Duration of project construction	Contractor	Project Manager, Sector Maintenance Chief	Appropriate cover for trucks or maintenance of freeboard throughout construction.		
All equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all State and federal requirements.	Duration of project construction	Contractor	Project Manager, Sector Maintenance Chief	Contractor maintenance of vehicles until end of construction.		
Excavation and grading activities will be suspended when sustained winds exceed 25 mph, instantaneous gusts exceed 35 mph, or dust from construction might obscure driver visibility on public roads.	Duration of project construction	Contractor	Project Manager, Sector Maintenance Chief	Attention to weather reports and site conditions during any given construction period.		
Cover inactive storage piles.	Duration of project construction	Contractor	Project Manager, Sector Maintenance Chief	Storage piles will be covered by contractor at the end of each work day.		
Biological Resources						
Recommendations provided by the U.S. Fish and Wildlife Service (USFWS) will be adopted as mitigation for any potential impacts that may occur to the Smith's blue butterfly and its habitat (seacliff buckwheat and associated duff), including starting work in late summer after the butterfly has pupated, salvaging/removing buckwheat plants and duff prior to construction and spreading this material back over the site following construction, and replanting buckwheat plants lost during the proposed work at a 3:1 ratio. Any spreading dudleya and Lewis' clarkia occurring in the project area will be salvaged to the best extent possible and any plants lost during construction will be replaced at a 3:1 ratio. Certain designated areas containing concentrations of seacliff buckwheat, spreading dudleya and/or Lewis' clarkia will be avoided by project construction entirely.	Fall 2006 - approx. Spring 2007	Contractor, DPR Natural Resources Staff	Project Manager, Senior Resource Ecologist	Construction to occur after butterfly has pupated in the late summer. Buckwheat plants and associated duff will be salvaged and replaced on the site following construction. Lost plants will be replaced at a 3:1 ratio.		
Recontoured areas will be re-vegetated as soon as construction work is completed to protect against excessive erosion or loss of topsoil and intrusion of invasive plants.	Fall 2006 - approx. Spring 2007	DPR Natural Resources Staff	Project Manager, Senior Resource Ecologist	Application of native seed mix following completion of construction.		
Project design and construction methods will be altered as necessary to comply with DFG, USFWS, or other responsible agency permitting requirements.	Duration of project construction.	Project Manager, Contractor	Project Manager, Senior Resource Ecologist	Periodic review of project throughout all stages of implementation.		
All mature trees at the site will be retained and protected from construction impacts using best management practices. Special care will be taken to avoid impacts to the old growth redwoods adjacent to the creek channel.	Duration of project construction.	Project Manager, Contractor	Project Manager	Contractor will be required to use BMPs and to use care when working near old growth Redwood or other mature trees. Periodic review of project site.		
All impacts to wetland plant species will be mitigated by replacing them on a 3:1 ratio.	Following construction - approx. Spring 2007	DPR Natural Resources Staff	Project Manager, Senior Resource Ecologist	Replacement of any lost wetland plant species will be replanted at a 3:1 ratio.		

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Cultural Resources						
A DPR-approved archaeologist will be on-site during excavation occurring near the hairpin turn at Redwood Creek. The archaeologist will photo document as necessary and record any archaeological features that may be discovered.	Duration of project construction	Project Manager	Project Manager, Sector Maintenance Chief	Archaeologist to be on-site during construction.		
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 in the immediate vicinity of the find will be temporarily halted or diverted until a DPR-qualified cultural resource specialist has evaluated the find and implemented appropriate treatment and disposition of the artifact(s).	Duration of project construction	Contractor	Project Manager, Cultural Resource Specialist	If artifacts are found work will be halted in the immediate vicinity of the find until a DPR-qualified cultural resource specialist is notified.		
Once any significant cultural resources are found in a project location, a DPR-qualified historian and archaeologist (and Native American representative, if appropriate) will monitor any ground-disturbing work in that area from that point forward.	Duration of project construction	Contractor, Cultural Resource Specialist	Project Manager, Cultural Resource Specialist	While ground-disturbing work is going on a cultural resource specialist will be on-site.		
In the event that human remains are discovered, work will cease immediately in the area of the find and the project manager/site supervisor will notify the appropriate DPR personnel. Any human remains and/or funerary objects will be left in place or returned to the point of discovery and covered with soil. The DPR Sector Superintendent (or State Representative) will notify the County Coroner, in accordance with §7050.5 of the California Health and Safety Code, and the Native American Heritage Commission (or Tribal Representative). If a Native American monitor is on-site at the time of the discovery, the monitor will be responsible for notifying the appropriate Native American authorities.	Duration of project construction	Contractor, Project Manager, Cultural Resource Specialist	Project Manager	Work will cease immediately in the area of the find and appropriate actions taken.		
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 will 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.	Duration of project construction	Cultural Resource Specialist	Cultural Resource Specialist, Project Manager	Consult Sacramento if Native American interment has been uncovered.		
If it is determined the find indicates a sacred or religious site, the site will be avoided to the maximum extent practicable. Formal consultation with the State Historic Preservation Office and review by the Native American Heritage Commission/Tribal Cultural representatives would also occur as necessary to define additional site mitigation or future restrictions.	Duration of project construction	Cultural Resource Specialist	Cultural Resource Specialist, Project Manager	Any cultural sites found will be evaluated by cultural resource specialist.		
Geology and Soils						
DPR North Coast Redwoods District Road Recontouring Best Management Practices (BMPs) will be used in all areas to control soil and surface water runoff, including recontouring to restore natural drainage patterns, placement of geotextiles, or biodegradable reinforcement, and drainage and slope erosion control methods, as appropriate.	Duration of project construction.	Contractor	Project Manager	Contractor's adherence to BMPs.		
If storms are anticipated during construction, "winterizing" will occur, including the covering of any stockpiled soils and the use of temporary erosion control methods to protect disturbed soil.	Duration of project construction.	Contractor	Project Manager	Contractor "winterizes" site in a timely manner when and if appropriate.		

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Geology and Soils continued						
Other temporary erosion control measures will also be used as needed, including, but not limited to, the following: 1) fillcompaction to stabilize material, including tractor walking all placed fill material, 2) Standard erosion control measures on all areas of ground disturbance, silt fences, weed-free straw bales, weed-free straw or rice wattles, and/or sediment detention basins to prevent soil loss and siltation, 3) Weed-free straw mulch will be applied to the site, and 4) all disturbed areas along the roadway will be seeded with a native and/or erosion control mix and planted with nursery-grown plants to provide soil stability and immediate cover, and 5) Plant duff and organic soil will be removed from graded areas and stored; after grading is complete this stored material will be spread over disturbed areas intended for revegetation.	Duration of project construction.	Contractor, DPR Natural Resources Staff	Project Manager, Senior Resource Ecologist	Contractor uses appropriate erosion control measures to prevent loss of soil resources on site.		
Hazards and Hazardous Materials						
All equipment will be inspected for leaks immediately prior to the start of construction, and regularly inspected thereafter until equipment is removed from park premises.	Duration of project construction.	Contractor	Project Manager, Sector Superintendent/Sector Maintenance Chief	Contractor and Sector Maintenance Chief perform inspections of equipment throughout construction period.		
The contractor(s) will 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 will include a map that delineates construction staging 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 Julia Pfeiffer Burns SP during construction, the contractor would immediately notify the appropriate DPR staff (e.g. project manager or state representative).	Duration of project construction.	Contractor	Project Manager, Sector Superintendent/Sector Maintenance Chief	Preparation and implementation of emergency spill response plan by the contractor. On-site spill kit ready for use at any time		
Equipment will be cleaned and repaired (other than emergency repairs) outside the park boundaries. All contaminated water, sludge, spill residue, or other hazardous compounds would be disposed of outside park boundaries, at a lawfully permitted or authorized destination.	Duration of project construction	Contractor	Project Manager, Sector Superintendent/Sector Maintenance Chief	Contractor cleans and repairs equipment and disposes of waste in appropriate locations as specified in mitigation measure.		
A safety plan will be developed and reviewed by all project staff prior to the start of any work. Job site characteristics to reduce the potential for fire will be included.	Prior to project construction	Contractor	Project Manager, Sector Superintendent/Sector Maintenance Chief	Contractor prepares safety plan and reviews with staff prior to construction start.		
Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment.	Duration of project construction	Contractor	Project Manager, Sector Superintendent/Sector Maintenance Chief	Contractor obtains appropriate equipment prior to construction start.		
The project manual shall specify that equipment operators assigned to this project shall have documented previous experience on steep terrain and in confined areas.	Prior to project construction	Contractor	Project Manager, Sector Superintendent/Sector Maintenance Chief	Requirement will be included in project manual provided to contractor.		
Construction crews will be required to park vehicles away from flammable material, such as dry grass and brush. At the end of each workday, heavy equipment will be parked over mineral soil, asphalt, or concrete to reduce chance of fire.	Duration of project construction	Contractor	Project Manager, Sector Superintendent/Sector Maintenance Chief	Contractor parks equipment in appropriate areas to reduce risk of fire. Park staff can assist in identifying locations.		

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Hazards and Hazardous Materials, continued						
While on-site park staff will be required to have a State Park radio or cell phone, which allows direct contact to the Monterey County Fire Department and centralized dispatch center, to facilitate the rapid dispatch of control crews and equipment in case of a fire. Fire suppression equipment will also be available on park grounds.	Duration of project construction	Contractor	Project Manager, Sector Superintendent/Sector Maintenance Chief	Park staff to have functioning radios while on-site. Contractor also carries operable cell phone in case of an emergency.		
Signs will be installed at entry points and along the road advising visitors of fire dangers and avoidance measures for potential causes of accidental ignition.	Duration of project	Park Staff	Project Manager, Sector Superintendent/Sector Maintenance Chief	Park staff and contractor work together to design and post signage where appropriate.		
Hydrology and Water Quality						
Work will be conducted during the dry season (July-October).	Duration of project construction	Contactar	Project Manager	Adherance to project timeline by contractor.		
No excavation work will occur on slopes greater than 10% during periods of heavy rains or when soils are saturated.	Duration of project construction	Contractor	Project Manager, Sector Superintendent/Sector Maintenance Chief	Excation would cease during heavy rainstorms on slopes greater than 10%.		
Work will be directed and/or periodically inspected on-site by qualified person to assure soil compaction and finish grading meet job specifications.	Duration of project construction	Park Maintenance Chief	Project Manager, Park Maintenance Chief	Direction/inspection by qualified person to ensure mitigation measure is being followed.		
Noise						
Construction activities will generally be limited to daylight hours and Monday through Friday work week. Any alterations in this schedule, if deemed necessary, would be made to address overriding construction considerations or worker safety.	Duration of project construction	Contractor	Project Manager, Sector Superintendent/Sector Maintenance Chief	Contractor to adhere to specified construction timetables unless approval is obtained from appropriate park staff.		
Internal combustion engines used for any purpose at the job site will 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.	Duration of project construction	Contactar	Project Manager, Sector Superintendent/Sector Maintenance Chief	Contractor utilizes proper equipment.		
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 will be muffled to a feasible extent and/or, whre practicable, enclosed within temporary sheds.	Duration of project construction	Contactar	Project Manager, Sector Superintendent/Sector Maintenance Chief	Park staff to work with contractor to identify sensitive areas prior to and throughout project construction.		