

Appendix E: Mitigation Measures Common to all Action Alternatives

The National Park Service places a strong emphasis on avoidance, minimization, and mitigation of impacts. Mitigation measures have been developed to help ensure that field activities associated with The Ahwahnee Comprehensive Rehabilitation Plan protect natural, cultural, and social resources and the quality of the visitor experience. The following section discusses mitigation measures that would occur prior to, during, and after construction of the proposed improvements.

Mitigation Measure	Responsibility	Critical Milestones
CONSTRUCTION MITIGATION MEASURES		
Prior to entry into the park, steam-clean heavy equipment to prevent importation of non-native plant species, tighten hydraulic fittings, ensure hydraulic hoses are in good condition and replace if damaged, and repair all petroleum leaks.	Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Inspect the project to ensure that impacts stay within the parameters of the project area and do not escalate beyond the scope of the environmental assessment, as well as to ensure that the project conforms with all applicable permits or project conditions. Store all construction equipment within the delineated work limits. Confine work areas within creek channels to the smallest area necessary.	Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Implement compliance monitoring to ensure that the project remains within the parameters of National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA) compliance documents.	Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
Provide a project orientation for all construction workers to increase their understanding and sensitivity to the challenges of the special environment in which they will be working.	Yosemite National Park, Project Manager	Prior to and concurrent with project activities
If deemed necessary, demolition/construction work on weekends or federal government holidays may be authorized, with prior written approval of the Superintendent.	Yosemite National Park, Project Manager	Prior to and concurrent with project activities
Remove all tools, equipment, barricades, signs, surplus materials, and rubbish from the project work limits upon project completion. Repair any asphalt surfaces that are damaged due to work on the project to original condition. Remove all debris from the project site, including all visible concrete, timber, and metal pieces.	Yosemite National Park, Project Manager; Contractor	Upon completion of project activities
The Construction Contractor shall prepare a Health and Safety Plan to address all aspects of Contractor health and safety issues compliant with OSHA standards and other relevant regulations. The Plan shall be submitted for park review and approval prior to construction.	Contractor	Prior to and concurrent with project activities
<p>A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared by the Construction Contractor and implemented for construction activities on The Ahwahnee grounds to control surface run-off, reduce erosion, and prevent sedimentation from entering water bodies during construction. The SWPPP shall be submitted for park review and approval prior to construction. The plan will include measures such as:</p> <ul style="list-style-type: none"> Take measures to control erosion, sedimentation, and compaction, and thereby reduce water pollution and adverse water quality effects. Use silt fences, sedimentation basins, etc. in construction areas to reduce erosion, surface scouring, and discharge to water bodies To the extent possible, schedule the use of mechanical equipment during periods of low precipitation to reduce risk of accidental hydrocarbon leaks or spills. When mechanical equipment is necessary outside of low precipitation periods, use NPS– approved methods to protect soil and water from contaminants Dispose of volatile wastes and oils in approved containers for removal from construction sites to avoid contamination of soils, and drainages. Inspect equipment for hydraulic and oil leaks prior to use on construction sites, and implement inspection schedules to prevent contamination of soil and water. Keep absorbent pads, booms, and other materials on site during projects that use heavy equipment to contain oil, hydraulic fluid, solvents, and hazardous material spills 	Contractor	Prior to and concurrent with project activities

Mitigation Measure	Responsibility	Critical Milestones
CONSTRUCTION MITIGATION MEASURES (CONTINUED)		
Develop and implement a comprehensive Spill Prevention/Response Plan that complies with federal and state regulations and addresses all aspects of spill prevention, notification, emergency spill response strategies for spills occurring on land and water, reporting requirements, monitoring requirements, personnel responsibilities, response equipment type and location, and drills and training requirements. The spill prevention/response plan will be submitted to the park for review/approval prior to commencement of construction activities.	Contractor	Prior to project activities
A construction work schedule shall be prepared by the Construction Contractor for the project that minimizes effects on wildlife in adjacent habitats and peaks in visitation. The work schedule shall be submitted for park review and approval prior to construction.	Contractor	Prior to and concurrent with project activities
Supervisory construction personnel shall attend an Environmental Protection briefing provided by the park prior to working on site. This briefing is designed to familiarize workers with statutory and contractual environmental requirements and the recognition of and protection measures for archeological sites, sensitive habitats, water resources, and wildlife habitats.	Contractor	Prior to and concurrent with project activities
The park shall develop a Communications Strategy Plan to alert necessary park and concessioner employees, residents and visitors to pertinent elements of the construction work schedule.	Yosemite National Park, Project Manager	Prior to and concurrent with project activities
Identify locations of existing utilities prior to removal activity to prevent damage to utilities. The NPS maintenance staff will be informed 10 working days prior to any ground disturbance. The Underground Services Alert will be informed 72 hours prior to any ground disturbance. Construction-related activities will not proceed until the process of locating existing utilities is completed (water, wastewater, electric, communications, and telephone lines). An emergency response plan will be required of the contractor.	Yosemite National Park, Project Manager	Prior to and concurrent with project activities
Promptly reconnect utility services that are interrupted because of construction activities and provide advance notification if utility service will be disrupted.	Yosemite National Park, Project Manager; Contractor	Concurrent with and following project activities
Provide proper and timely maintenance for vehicles and equipment used during construction to reduce the potential for mechanical breakdowns.	Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
HYDROLOGY AND WATER QUALITY		
All disturbed soil and fill slopes shall be stabilized in an appropriate manner.	Contractor	Prior to and concurrent with project activities
Store equipment and materials away from all waterways.	Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
Wastewater contaminated with silt, grout, or other by-products from construction activities shall be contained in a holding or settling tank to prevent contaminated material from entering watercourses or wetlands.	Contractor	Concurrent with project activities
Waters shall be free of changes in turbidity that cause a nuisance or adversely affect beneficial uses. Increases in turbidity attributable to controllable water quality factors shall not exceed the following limits, as described in <i>The Water Quality Control Plan</i> for the Central Valley Regional Water Quality Control Board (CVRWQCB 2009). In determining compliance with the limits below, appropriate averaging periods may be applied, provided that beneficial uses will be fully protected <ul style="list-style-type: none"> Where natural turbidity is between 0 and 5 Nephelometric Turbidity Units (NTUs), increases shall not exceed 1 NTU. Where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20%. Where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs. Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10%. 	Contractor	Prior to and concurrent with project activities
Remove hazardous waste materials generated during implementation of the project from the project site immediately.	Contractor	Concurrent with project activities

Mitigation Measure	Responsibility	Critical Milestones
HYDROLOGY AND WATER QUALITY (CONTINUED)		
Incorporate trench plugs into new and abandoned utility corridors through wetland areas where required to prevent formation or continuation of groundwater conduits.	Yosemite National Park; Project Manager; Contractor	Concurrent with project activities
Surface drainage facilities shall be designed to transport runoff in a non-erosive manner.	Yosemite National Park; Project Manager; Contractor	Prior to and concurrent with project activities
Material from construction work will be collected by the contractor and covered, and shall not be deposited where it could be eroded and carried to the stream by surface runoff or high stream flows.	Contractor	Concurrent with project activities
Schedule construction activities at drainages for seasonal periods of low or no water. On the unnamed seasonal tributary, place bridge abutments above the ordinary high water mark.	Contractor	Prior to and concurrent with project activities
Minimize disturbance area at the banks of drainages. Salvage excavated materials for replacement after construction. The banks of drainages will be restored to their pre-existing contours.	Contractor	Concurrent with project activities
At utility corridors, all trench backfill should be properly placed and adequately compacted to provide a stable subgrade.	Contractor	Concurrent with project activities
At utility corridors, adequate drainage should be provided to prevent surface water or subsurface seepage from saturating the subgrade utility corridor.	Contractor	Concurrent with project activities
VEGETATION		
Contractor will develop a Revegetation Plan in conjunction with the park's Resources Management and Science Division, to be approved prior to construction activities.	Yosemite National Park, Project Manager; Contractor	Prior to project activities
Avoid fastening ropes, cables, or fences to trees.	Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
A Park Botanist will oversee placement of construction fencing to avoid impacts to sensitive plants and wetlands. Although no special status plant species are currently known to occur in the proposed construction areas, if special status plant species are identified within the construction disturbance zone, the project manager will work with the Park Botanist to avoid impacts	Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
WILDLIFE (INCLUDING SPECIAL STATUS WILDLIFE)		
Provide information to the contractor regarding wildlife concerns at the project briefings, and provide contractor specifications and Best Management Practices to avoid activities that are destructive to wildlife and habitats. Project Manager will consult with the park biologist to schedule construction activities with seasonal consideration of wildlife lifecycles to minimize impacts during sensitive periods (i.e., after bird nesting seasons, when bats are neither hibernating nor have young, etc)	Yosemite National Park, Project Manager	Concurrent with and following project activities
In corporate wildlife exclusion during design development for pathway, roadway, and improvements at the hotel terrace in consultation with NPS subject-matter experts.	Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Limit the effects of light and noise on adjacent habitat through controls on construction equipment. No outdoor construction activities are to occur between dusk and dawn to eliminate the need for outdoor construction lighting, and to avoid disruption of mating, nesting, or foraging owls.	Yosemite National Park, Project Manager; Contractor	Prior to and concurrent with project activities
Prior to tree trimming or removal, a park wildlife biologist will first survey (within 4 days prior to any such work) to determine whether there are any nests present, and advise as to whether the activity must be delayed to ensure that sensitive species such as nesting migratory birds are protected and not disrupted.	Yosemite National Park, Project Manager working with the park wildlife biologist	Prior to project construction activities
Tree removal resulting from improvements to the fire department access road to the cottages would occur outside of the nesting season (after August and before April) in order to avoid impacts on special status bird species.	Yosemite National Park, Project Manager working with the park wildlife biologist	Concurrent with project activities

Mitigation Measure	Responsibility	Critical Milestones
WILDLIFE (INCLUDING SPECIAL STATUS WILDLIFE) (CONTINUED)		
Beginning in early spring, a park wildlife biologist will conduct bird surveys and review current owl reports to determine whether special status species are present and may be mating, nesting, or foraging in the project vicinity.	Yosemite National Park, Project Manager	Prior to project construction activities
If nesting birds are observed (e.g., discovered by workers) that are not special status species, the project manager will notify the park wildlife biologist who will recommend steps to avoid undesirable impacts to the nest or young.	Yosemite National Park, Project Manager	Prior to project construction activities
A park biologist will conduct bat surveys in the vicinity of the hotel in early summer (May-July for maternity colonies) and in fall (August-November) to locate potentially roosting/hibernating bats, and will provide specific directions for avoiding their disturbance if they are found. If bats are detected, the specific area will be protected and work on that particular area will be delayed until the bats vacate or can be excluded from the area in a manner that does not adversely affect their survival or that of their young.	Yosemite National Park, Contractor	Prior to project activities
If bats are detected during reproduction or hibernation periods, disturbance of potential habitat will be delayed until the bats can be excluded from the area in a manner that does not adversely affect their survival or that of their young.	Yosemite National Park, Project Manager, Contractor	Concurrent with project activities
If surveys conducted immediately prior to construction do not reveal any bat species present within the project area, then the action will begin within three days to prevent the destruction of any bats that could move into the area after the survey.	Yosemite National Park, Project Manager	Prior to and concurrent with project activities
FEDERAL AND STATE PERMIT REQUIREMENTS		
The NPS will apply for and comply with all federal and state permits required for construction-related activities, including the California Regional Water Quality Control Board and the U.S. Army Corps of Engineers.	Yosemite National Park, Project Manager	Prior to project activities
AMERICAN INDIAN TRADITIONAL CULTURAL RESOURCES AND PRACTICES		
For the fire department access road improvements, a traditional cultural resource mitigation plan will be developed in consultation with the park's vegetation subject-matter experts and input from tribal consultation and monitoring.	Yosemite National Park, Project Manager, Contractor	Prior to and concurrent with project activities
Culturally associated tribes will be given notice prior to ground disturbing activities at the project site and may be present at the project site to monitor ground disturbance during construction, as stipulated in the 2011 PA.	Yosemite National Park, Project Manager	Prior to and concurrent with project activities
Continue to consult with culturally associated American Indian tribes throughout the project to avoid or mitigate damage to American Indian traditional resources, as stipulated in the 2011 PA.	Yosemite National Park, Project Manager	Prior to, concurrent with and following project activities
HISTORIC PROPERTIES		
The Park will adhere to the <i>Programmatic Agreement Between the National Park Service, Yosemite National Park and the California State Historic Preservation Officer Regarding The Ahwahnee Hotel National Historic Landmark Comprehensive Rehabilitation Program, Mariposa County, California</i> (2011 PA) to resolve adverse effects.	Yosemite National Park, Project Manager	Prior to and concurrent with project activities
Mitigation measures to resolve adverse effects, as defined in the 2011 PA, include documentation, interpretation, and reevaluation of National Register status (updating National Register Nomination form).	Yosemite National Park, Project Manager	Prior to and concurrent with project activities
DUST ABATEMENT MEASURES		
Cover and/or seal truck beds and stockpiles to minimize blowing dust or loss of debris.	Contractor	Concurrent to project activities
Limit truck and related construction equipment speeds in active construction areas to a maximum of 15 miles per hour and strictly adhere to park regulations and posted speed limits in other areas while inside park boundaries.	Contractor	Concurrent to project activities
Maintain adequate dust suppression equipment and use clean water to control excess airborne particulates at staging areas, active construction zones, and unpaved roads leading to/from active construction areas.	Contractor	Concurrent with project activities

Mitigation Measure	Responsibility	Critical Milestones
EMERGENCY NOTIFICATION MEASURES		
Develop an emergency notification plan that complies with park, federal, and state requirements and allows contractors to properly notify park, federal, and/or state personnel in the event of an emergency during construction activities. This plan will address notification requirements related to fire, personnel, and/or visitor injury, releases of spilled material, evacuation processes, etc. The emergency notification plan will be submitted to the park for review/approval prior to commencement of construction activities.	Yosemite National Park, Project Manager	Prior to project activities
EROSION CONTROL MEASURES		
Conserve and salvage topsoil for reuse. Materials will be reused to the maximum extent possible.	Contractor	Concurrent with project activities
HAZARDOUS MATERIALS MEASURES		
An Oil and Hazardous Materials Spill Prevention, Control, and Countermeasure Plan shall be prepared by the Construction Contractor for the project to address hazardous materials storage, spill prevention and response. The Plan shall be submitted for park review and approval prior to construction.	Contractor	Prior to and concurrent with project activities
Store and use all hazardous materials in compliance with federal regulations. All applicable Materials Safety Data Sheets will be kept on site for inspection.	Contractor	Concurrent with project activities
Hazardous or flammable chemicals shall be prohibited from storage in the staging area, except for those substances identified in the Oil and Hazardous Materials Spill Prevention, Control, and Countermeasure Plan. Hazardous waste materials shall be immediately removed from project site in approved containers.	Contractor	Concurrent with project activities
Comply with all applicable regulations and policies during the removal and remediation of asbestos, lead paint, and polychlorinated biphenyls.	Contractor	Concurrent with project activities
SOUNDSCAPES		
Ensure that all construction equipment has functional exhaust/muffler systems.	Contractor	Concurrent with project activities
Submit a construction work plan/schedule that minimizes construction-related noise in noise-sensitive areas to the park for review/approval prior to commencement of construction activities.	Contractor	Prior to project activities
Use hydraulically or electrically powered construction equipment, when feasible.	Contractor	Concurrent with project activities
Locate stationary noise sources as far from sensitive receptors as possible.	Contractor	Concurrent with project activities
Limit the idling of motors except as necessary (e.g., concrete mixing trucks).	Contractor	Concurrent with project activities
To the extent possible, perform all on-site noisy work above 76 A-weighted decibels (dBA) (such as the operation of heavy equipment) between the hours of 9:00 a.m. and 5:00 p.m., or as directed by hotel management, to minimize disruption to hotel guests.	Contractor	Concurrent with project activities
SCENIC RESOURCES PROTECTION MEASURES		
Fence construction staging areas and construction activity areas to visually screen construction activity and materials.	Contractor	Concurrent with project activities
Consolidate construction equipment and materials to the staging areas at the end of each work day to limit the visual intrusion of construction equipment during nonwork hours	Contractor	Concurrent with project activities
TRAFFIC CONTROL AND VISITOR PROTECTION MEASURES		
Provide protective fencing enclosures around construction areas, including utility trenches, to protect public health and safety.	Contractor	Concurrent with project activities
TRANSPORTATION MEASURES		
Install appropriate traffic signs and barriers.	Yosemite National Park, Project Manager	Concurrent with and following project activities
NIGHT SKY MEASURES		
All new exterior lighting installed as part of this rehabilitation project will be historically compatible and conform to the <i>Yosemite National Park Outdoor Lighting Guidelines</i> .	Yosemite National Park, Project Manager	Concurrent with and following project activities

Mitigation Measure	Responsibility	Critical Milestones
WASTE MANAGEMENT MEASURES		
Require construction personnel to adhere to park regulations concerning food storage and refuse management.	Yosemite National Park, Project Manager; Contractor	Concurrent with project activities
Properly secure trash during the workday and remove all trash from site at the end of each workday.	Yosemite National Park, Project Manager	Concurrent with and following project activities
Develop and implement a comprehensive waste management plan that complies with federal and state regulations and addresses all aspects related to the transportation, storage, and handling of construction-related hazardous and nonhazardous liquid and solid wastes and submit the plan to the park for review/approval prior to the commencement of construction activities.	Contractor	project activities