



## Appendix B: Cumulative Impact Projects



## **Appendix B**

### **Cumulative Impact Projects**

#### **Past Plans and Projects**

- **General Management Plan**

The GMP is the blueprint for improving and preserving the park for the next century. The purpose of this plan is to ensure that park managers and stakeholders share a clearly defined understanding of the resource conditions, opportunities for visitor experiences, and general kind of management, access, and development that will best achieve the park's purpose and conserve its resources unimpaired for the enjoyment of future generations. It was finalized and signed in 1980. The plan describes actions to achieve five broad goals:

- Reclaim Priceless Natural Beauty
- Markedly Reduce Traffic Congestion
- Allow Natural Processes to Prevail
- Reduce Crowding
- Promote Visitor Understanding and Enjoyment

- **Hybrid Electric-Diesel Shuttle Bus Procurement**

The purpose of this project was to purchase three diesel hybrid transit buses for use in Tuolumne Meadows in conjunction with the free public shuttle system. The useful life of these buses is approximately 10 to 15 years.

- **Mariposa Grove Comfort Station Log Replacement and Repair**

The Mariposa Grove Comfort Station was constructed in 1931. It is a sugar pine log building. The sill and spandrell logs were experiencing deterioration and were replaced with in-kind material and corner notching. In addition, some of the other logs needed "Dutchman" repairs. The log crowns, just past the notches, have some decay and some of them were replaced or repaired using preservation techniques. Any and all smaller cosmetic problems were corrected during this project.

- **Mariposa Grove Interpretive Sign Installation**

The purpose of this project was to create a sense of arrival at the Mariposa Grove of Giant Sequoias and provide opportunities to visitors with information about the amazing resources of the giant sequoia Grove. The signage installation created a self-guiding trail through the Grove and brings the Mariposa Grove exhibits and related components up to the same caliber of that at Tuolumne Grove, Olmsted Point, and Yosemite Falls.

Thirteen new wayside exhibits were created and installed along the trail through the Grove, to replace the damaged metal ones including:

- Two new peeled log orientation exhibits; one at the trailhead and one at the tram boarding area.
- A peeled log interpretation panel at the trailhead.
- Two new brochure boxes; one at the trailhead and one at the tram boarding area.
- Two new map/directional signs along the trail.
- Tactile components and custom illustrations will be added.

- Mariposa Grove Museum Lighting Installation

The Mariposa Grove Museum houses excellent interpretive displays, yet the lack of lighting hindered the visitors' experience and also causes a safety hazard (visitors and employees have tripped and fallen in the space). This project installed rechargeable battery-powered lighting to help showcase the exhibits, provide visitor safety, and preserve the historic character of the building. The lights are only used during daytime museum visiting hours.

- Mariposa Grove Trails And Asphalt Removal

This project removed asphalt from an abandoned road in the upper Mariposa Grove. The area was restored to its natural condition with a two-foot dirt trail running through it. Trail signs were replaced throughout the Grove, and fencing installed to further protect the giant sequoias.

- Replace Mariposa Grove Remote Access Weather Station with Standard Tower

The purpose of this project was to replace the Remote Access Weather Station (RAWS) in the Mariposa Grove with a permanent 'Rohn-type' weather tower. The existing station was a 'tripod' structure typical of RAWS sites and the State of California Department of Water Resources (DWR) wanted to replace it with a standard 32.8 feet tall tower. The existing RAWS has a 20-foot tall mast. The new tower is painted black or fabricated with black anodized metal and is anchored by a concrete footer that was poured into a hole approximately 2 feet in diameter by 4 feet deep. The new tower hosts all the standard weather metrics currently collected by the RAWS (temperature, humidity, solar radiation, fuel moisture and temperature, rainfall, and wind speed and direction) as well as snow depth. The tower site is in a clearing not visible from roads or trails and not near any giant sequoia trees.

- South Entrance Boundary Marker Stabilization

The South Entrance Boundary Marker was constructed by the Civilian Conservation Corp between 1938 and 1940. The marker is located at Yosemite's south boundary on Wawona Road. It is constructed of granite stone and serves as an entrance sign and boundary marker. The marker is an integral part of the carefully engineered road system that has been designed to be compatible with the natural landscape and mirrors the rustic style stonework found at the South Entrance Ranger Duplex, South Entrance Station Office and Comfort Station. The structure addressed with this project has a total surface area of approximately 244 square feet. Stabilization activities for this project focused on five tasks: (1) removing overgrown vegetation and eroded bank dirt to expose the masonry; (2) cleaning the entire surface utilizing a pressure washer and clean, clear water to expose deteriorated mortar joints; (3) selectively removing deteriorated, failed mortar joints and repoint with appropriate mortar; (4) replacing missing stones and resetting loose, displaced stones; and (5) replacing the missing log and historic sign utilizing the original 1938 construction blueprints. All preservation treatments and project supervision were accomplished "in-house" by the Yosemite historic preservation team.

- South Entrance Leach Field Repair

An additional (800) feet of leaching lines parallel to the existing South Entrance leach field were installed. Eight new inspection ports for monitoring and (3) distribution valves for effluent distribution were also installed. The existing dosing station was replaced. The leach field services the South Entrance Station, Ranger housing and entrance comfort station at Wawona.

- South Entrance Office Reroute Telephone Line

This project involved a reroute of the telephone lines to the South Entrance office/residence (duplex) and the removal of an existing overhead line that was unsightly and difficult to maintain. The project included protection of the access point from snow plow damage with a standard green telephone access pedestal (the access point is currently protected by piles of rocks). National Park Service staff and equipment were used for all trenching activities.

- South Entrance Safety Improvements and Office Modernization

This project addressed electrical, safety, and ergonomic concerns in the South Entrance Office. Wire molding was surface-mounted to the office walls. Twenty-four additional outlets were added to the office on at least 4 new circuits. A metal rod was driven into the ground near the breaker panel on the outside of the building. Two existing phone lines were re-routed. The office layout was changed to be more efficient and ergonomic, which included rearranging the furniture and adding additional storage cabinets.

- South Entrance Station Reestablish Exit Lane

This road improvement project increased visitor and employee safety at the South Entrance Station. The project included re-establishing the old road alignment for exiting southbound traffic from Yosemite National Park and repairing the existing pavement surrounding the South Entrance kiosk.

The project reduced congestion and the amount of large vehicle traffic entering the intersection.

The project improved safety by allowing exiting vehicular traffic to make a gentle right-turn prior to entering the existing congested intersection. This entailed:

- Completing an initial geotechnical investigation to determine the roads design profile. This would include two borings up to 10 feet deep (6 inches in diameter) and three borings up to 2 feet deep (6 inches in diameter).
- Removing 12 trees between 12 to 36 inches in diameter.
- Regrading and compacting the road subgrade. The compacted fill and base material would be used to create a structurally sound sub-base.
- Installing final compacted asphalt pavement.
- Adding curbing, pavement markings and signage.
- Installing rumble strips and LED stop signs.
- Relocating the existing barriers with new curb features.
- Relocating telecommunication and power lines, a light pole, as well as abandonment of an existing ventilation shaft.

- South Entrance Traffic Safety Improvements

This project entailed adding temporary traffic safety improvements to the South Entrance Station. Thirteen 10-foot sections of K-rail were installed within the road prism, for traffic entering and exiting the park, and were secured in place by using 3/4-inch rebar driven approximately 2 feet into the previously disturbed paved surface. New striping was painted onto paved road surfaces leading up to the middle kiosk, separating traffic into two lanes. Two new signs were installed, one directional sign and one sign indicating the narrow exit

lane width. Removable channelizers were installed at the entrance lanes between the kiosks and the “T” intersection in an effort to prevent vehicles from crossing lanes.

- Scenic Vista Management Plan

The Scenic Vista Management Plan created a program to replace the park’s current ad hoc approach to scenic vista management with a comprehensive strategy to prioritize viewpoints for management, identify which methods of vegetation clearing area appropriate at what times and in which places, and describe what trees and brush may need to be removed to restore the view at high priority vistas. Implementation began in 2012. Proposed vista management methods could include fire, mechanical thinning, and trimming.

- South Entrance Station Kiosks Replacement

The goal of this project is to design and construct safe, secure, accessible, and high performance entrance station kiosks at the South Entrance of the park on Wawona Road.

This project entails relocating the new kiosks along Wawona Road approximately 350 feet (315 feet straight line measurement) south of the existing kiosks location. Work includes approximately 43,000 square feet of fill and 7,500 square feet of cut along the east side of Wawona Road to allow for placement of the three new kiosks and the entrance and exit paved surface around the kiosks. This required the removal of approximately 135 trees between 4 inches and 48 inches diameter at breast height. Tree removal occurred in Fall 2012.

Implementation will be complete in 2014. When completed, the work will include:

- constructing three new, 8 feet x 14 feet permanent kiosks,
- relocating new utility lines (gas, electric, and telecommunications),
- installing curbing, signs, and landscaping around new-permanent kiosks,
- installing security upgrades including video cameras,
- conducting five geotechnical and pavement borings within the project area to determine the detailed soil conditions (8-inch diameter x 10 feet maximum depth), and
- installing an upsized culvert and a wildlife crossing.

- Tachyon Satellite Equipment Installation (Phase 4)

This satellite equipment installation project provided a Local Area Network/Wide Area Network connection to various operational teams in areas where traditional high-speed data connectivity does not exist. There were two locations in Phase 4: South Entrance Station and Lake Eleanor Ranger Office. The approximately 47-inch dish antenna was mounted to a free-standing pole installed 3 to 5 feet above ground at each site. Antennas were placed in the least visible locations possible while still providing sufficient satellite communication to deliver high-speed data connectivity. Intrusion into the areas around the buildings and landscapes will be minimized with limited tree-trimming and removal. The Tachyon installer determined the locations for dish installation during initial site surveys. Each site was visited by the park’s History, Architecture and Landscapes (HAL) staff. Tachyon engineers and park staff advised painting each dish Wosky Brown for best operational and visual results.

- Wawona Meadow Restoration

#### Phase I

This project restored ecological processes in Wawona Meadow, which is habitat for two threatened bird species (great gray owl and willow flycatcher) and several sensitive plant species.

Data gathering Phase 1 included the following: meadow hydrology, wildlife habitat, invasive plant species, special status plant species, cultural landscape, historic features, archeological sites, American Indian use, visitor use, helicopter operations, stock use, fire, PG&E access, trailhead parking, and road and trail maintenance.

Specifically, park staff:

- Conducted vegetation, hydrologic and wildlife monitoring, assessments and surveys, including wetland delineation.
- Assessed hydrologic diversions and identify solutions for ecological restoration.
- Conducted cultural resource and landscape assessments to identify cultural resources and provide recommendations for protection.
- Consulted with American Indian tribes to identify visitor groups and develop interpretive guidelines.
- Analyzed sediment/pollen cores to determine fire history and vegetation changes of Wawona Meadow.
- Eradicated Velvet grass (invasive species) eradication, through the use of herbicides in accordance with the Invasive Plant Management Plan.
- Removed small conifers no greater than six inches in diameter, breast height (dbh) adjacent to the historic fence, chutes and corral to improve protection from fire.
- Removed asphalt associated with the Wawona Meadow loop road that is eroding and affecting hydrology.
- Completed an Ecological Restoration Management plan for Wawona Meadow, incorporating all of the above information and issues.

#### Phase II

Ditches that were constructed in the Wawona Meadow in 1936 have altered its hydrology by disrupting both surface and subsurface flow, lowering groundwater levels, drying out adjacent areas, and altering plant communities. The ditch on the south side of the meadow extends for one mile and was reinforced with 22 buried concrete weirs. Fourteen of those weirs are more than 50 percent exposed. Most of them are located in the 982-foot length of the ditch that has eroded to 10 feet deep. Water flows through the ditch for most of the year, draining the groundwater from the meadow. This is evidenced by the dominance of upland (rather than wetland) and non-native plants adjacent to the gullied sections of the ditch. The rest of the ditch varies: Some parts have slow moving water (1 to 3 feet deep) and other parts are heavily vegetated with no water flow. The ditch on the north side of the meadow is mostly shallow and has less impact on hydrology. Monitoring of hydrology, plant communities, and wildlife would help direct restoration actions.

Under Phase II the project implemented the following actions:

- Removed concrete weirs above ground level and recycle out of the park.
  - Filled sections of the ditch with 4,000 cubic yards of native fill.
  - Placed “plugs” or grade-control structures to re-contour the area and discourage concentrated water flow.
  - In shallower sections of the ditch, pulled back the remaining soil berm.
  - Salvaged plants and topsoil prior to restoration disturbance.
  - Collected native seeds from adjacent areas.
  - Revegetated newly restored areas by replacing topsoil and salvaged plants, seeding, and planting willow.
  - Placed five wayside exhibits around the meadow loop describing meadow ecology, historic events, and the restoration process.
- **Vegetation Management Plan**  
 The Vegetation Management Plan is an addendum to the Yosemite National Park Resource Management Plan (RMP) (1993) and is guided by the 1980 General Management Plan. The purpose of the plan is to:
    - Delineate the legislative and administrative requirements that guide development of vegetation management objectives;
    - Refine the goals and objectives for vegetation management that are established in the RMP;
    - Describe the dynamic environment of vegetation within the park and the social, cultural and natural processes that influence the vegetation;
    - Discuss the current vegetation management issues, define management objectives, management techniques and strategies for achieving objectives, and information needed; and
    - Provide a summary of vegetation management planning needs to be addressed in the future, including the roles and responsibilities for planning and implementation.
 The framework of the plan provides guidance for specific implementation plans to be developed for vegetation management in Yosemite. Vegetation management projects are ongoing.
  - **Wawona Covered Bridge Preservation Maintenance**  
 The purpose of this project was inspection, maintenance, and repair of the Wawona Covered Bridge, which is required to maintain and operate the bridge safely in accordance with national standards and Yosemite National Park management plans. The bridge received major rehabilitation work in 2003-04 to bring it to Federal Highways Administration standards and continued preservation maintenance is needed for the long term use of the bridge. This project was intended to begin a General Inspection Procedure to include exterior, interior, and the following bridge components: foundation, roof, truss, deck, and timbers. All deficiencies of bridge members, tie rods, connections, and foundation were corrected. Flashing on the timbers was resealed and the exterior envelope and roof was given a new coat of wood preservative/wood stain.

## Present Plans and Projects

- Commercial Use Authorization for Commercial Activities

The purpose for the issuance of these Commercial Use Authorizations (CUA, previously titled Incidental Business Permit) is to regulate and oversee operations of permit holders involved in conducting commercially guided day hiking, overnight backpacking, in fishing, photography workshops, stock use (pack animal trips and pack support trips for hikers), and Nordic skiing activities in Yosemite National Park. Commercial tour bus companies, and tire chain installation business operate under the authority of a CUA. In addition to the base CUA, additional uses and activities may be allowed depending on the holder's request and compliance with all applicable laws, regulations and guidelines. Conditions for these additional activities are stipulated in the body of the individual permit for each activity. The permitted activities are to be conducted only in those areas of Yosemite National Park open to the public and authorized by the permit. The permit holder is required to obtain any additional permits or licenses as required by law. Permits are renewed annually.

- Comprehensive Interpretive Plan

The purpose of this plan is to outline a comprehensive approach to interpreting park natural and cultural resource. The Comprehensive Interpretive Planning (CIP) process is established in Director's Order 6 and is the basic planning component for interpretation. The product is not the plan, but an effective and efficient interpretive program that achieves management goals, provides appropriate services for our visitors, and promotes visitor experiences.

The heart of the CIP is the Long-Range Interpretive Plan (LRIP) that defines the overall vision and long-term (five to ten years) interpretive goals of the park. The process that defines the LRIP also encourages development of targeted, realistic strategies and actions that work toward achievement of its goals. Actions divided into annual, achievable steps are reproduced in the Annual Implementation Plan. Creating annual plans via this "stepping down" of the LRIP simplifies much of the annual planning process because specific goals already have been identified in the LRIP. The last section of the CIP is the Interpretive Database, which is a compilation of information needed to build the other two components. It includes media inventories, the park's strategic plan, enabling legislation, visitor surveys, reports, a bibliography, and other basic information.

- Environmental Education Center

The purpose of this project is address issues of deterioration and use at the Yosemite Institute environmental education campus at Crane Flat. The campus at Crane Flat has served as an educational facility since 1971, and the facilities are comprised of older buildings and structures that have been assembled over time and were not originally designed for educational purposes. Most of the Crane Flat campus structures and utilities are nearly 70 years old, are energy inefficient, and are increasingly difficult to retrofit to achieve modern standards for health, safety, and accessibility.

The selected alternative presents a plan to construct a new campus at Henness Ridge and restore Crane Flat to Natural conditions. These new facilities would accommodate 224 students and 20 staff. New utilities and a firehouse would be installed to accommodate the new campus, and the new facilities would be universally accessible and meet fire, health, and safety standards.

- Fire Management Plan/Operational Fire Management Plan

Yosemite National Park's fire management program employs a variety of methods to accomplish and support fire and resource management objectives and to reduce the risk of



wildfire in and adjacent to the park. Strategies in this plan are based on knowledge gained from fire and fuels research and monitoring, and from experience gained in Yosemite National Park over the last 50 years. Over the last 30 years, federal fire policy has changed from suppression of all wildfires to a policy allowing a single fire to be used as a tool to meet multiple land management and public safety objectives. After decades more than 30 years of proactive response to wildland fire, the park is far from restoring natural fire regimes to the entire park landscape, though significant inroads have been made. While fuel reduction and prescribed burning have increased since the 1990 A-Rock Fire, developed areas are still at risk from uncontrolled wildland fires. The 2001 Federal Fire Policy specifically mandates public land agencies to reduce the amount of forest and shrubland fuels around areas with homes and buildings, and to restore ecosystems to a more natural, fire-tolerant balance. In response, the National Park Service has issued new fire management guidelines that require updated fire management plans. Yosemite National Park's 2008 Operational Fire Management Plan serves to utilize the new fire management guidelines in outlining procedures for managing fire in Yosemite National Park; for restoration and maintenance of ecosystems, for reduction of hazard fuels, for protection of natural and cultural resources, and for protection of wildland urban interface communities. Implementation of the fire management plan is ongoing.

- Fuels reductions/forest rehabilitation projects (US Forest Service)

The purpose of these projects is to reduce the intensity and spread of wildfires across the landscape and near communities, and to reduce stand density within the lower and mid canopy layers of conifer stands to such that level provides for increased stand resiliency, growth, and vigor. The Sierra and Stanislaus national forests are both conducting a variety of projects aimed at reducing fuels and/or restoring more natural conditions in their west-slope Sierra forests. To accomplish these goals, workers in the forests thin conifer stands to reduce stand densities and ladder fuels; masticate ladder fuels and brush/shrub patches; utilize prescribed burning, understory and pile; manually treat and/or prescribed burn noxious weed infestations; and site prepare and plant failed conifer plantations.

Scheduled/projected completion: Some form of fuel reduction/forest restoration is ongoing at all times in the west-slope Sierra national forests.

- Integrated Transportation Capacity Assessment

This project develops traffic and visitor use computer simulation models to assist transportation planning, user capacity management, and operations.

- Intelligent Transportation System (ITS) for Southern Area of the Park

This project would install electronic signs at four locations in the southern portion of Yosemite: Wawona, Mariposa Grove, Badger Pass, and Glacier Point. Through implementation of this project, the park would have real-time, information-based, decision-making capability to reduce traffic congestion and enhance the park's transit systems.

- Invasive Plant Management Plan Update (NPS)

The purpose of this plan is to provide park resource managers with the necessary planning tools and procedures for effectively and efficiently managing non-native invasive plants. The primary goal is to create a plan that is adaptive, that allows managers to adapt to changing conditions and needs. A methodology would also be created for assessing the efficacy and impacts of new herbicides, and assessing various management guidelines and tools.

An environmental assessment completed for this project and released for public review in 2010. A finding of no significant impact was approved by the Regional Director in August 2010. Project implementation is underway.

- Invasive Plant Control (California Department of Transportation)

The California Department of Transportation (Caltrans) controls invasive plants along rights-of-way in several areas adjacent to Yosemite National Park. Yellow star-thistle is controlled along Highway 120 in Tuolumne County outside the park using the herbicide Transline (clopyralid). Caltrans does not currently use herbicides along Highway 140 within the Merced River corridor. Additionally, Caltrans works with individual county agricultural commissioners to respond to reports of invasive plants within the Caltrans rights-of-way.

- Invasive Plant Control (Mariposa County)

Mariposa County actively controls several species of invasive plants in areas adjacent to the park. Mariposa County treats yellow star-thistle with a combination of mechanical, biological, and herbicide control techniques. Herbicides include Transline (clopyralid), Milestone® (aminopyralid), Roundup® (glyphosate), Rodeo® (glyphosate), and Accord (glyphosate). Yellow star-thistle control occurs in several locations throughout the county, and includes the Merced River Canyon up to the park boundary. Other priority species under county control are Iberian star-thistle and diffuse knapweed.

- Merced Wild and Scenic River Comprehensive Management Plan

The National Park Service has begun developing a new Comprehensive Management Plan and associated Environmental Impact Statement for the Merced Wild and Scenic River (Merced River Plan/EIS). In this plan, the agency would address resource protection and restoration; development (and/or removal) of lands and facilities; user capacities; and specific management measures that would be used to protect and enhance the river's outstandingly remarkable values. The Merced River Plan/EIS would address the quantity and mixture of recreation and other public uses that may be permitted without adverse impact on the river's outstandingly remarkable values, including a discussion of the maximum number of people that may be received in the river corridor.

The National Park Service is currently preparing a new comprehensive river management plan and environmental impact statement for the Merced Wild and Scenic River within Yosemite National Park. As part of this planning effort, the National Park Service is attempting to address concerns regarding parking at Wawona, where currently many visitors to the Mariposa Grove are forced to park and take the park shuttle during high visitation. The National Park Service is also considering expansion of transit options. Regional bus service, similar to that provided on the Highway 140 corridor, would be introduced. A maximum of 12 runs per day would be made between Fresno or other regional centers and Yosemite Valley. Using 48-passenger buses this would accommodate a maximum of 311 people at one time. The Wawona area shuttle would continue, serving the key destinations within this segment along with the Mariposa Grove of Giant Sequoias.

Preparation of the environmental impact statement was released for public review in 2013.

- Motorized Travel Management Plans (US Forest Service)

The U.S. Forest Service will be developing Travel Management Plans and Forest Plans for all national forests in California over the next few years. Travel Management Plans specify what forms of travel are allowed in what areas of the national forests. Forest Plans guide where and under what conditions an activity or project on national forest lands can generally proceed. Some of the forests have completed one or both of these tasks.

- Parkwide Communication Data Network

Yosemite National Park plans to begin a Communications Data Network (CDN) infrastructure upgrade utilizing available, commercial off-the-shelf technology supporting a single “hybrid communication backbone” employed throughout the park—to maximize existing equipment use, minimize current and planned costs, to fulfill the park’s future operational and security needs. This “backbone” would be a microwave and fiber optic pipeline used to transfer computer LAN data, radio communications, security and safety video systems, telephony, burglar/intrusion, fire alarm systems, traffic collection data, and telemetry throughout Yosemite. Upgrading the network also serves to enhance compliance and utilization of the narrowband and digital P25 compliant radio infrastructure as well as providing enhanced LAN connectivity for remote areas such as Wawona, Crane Flat, Hodgdon Meadows, and Tuolumne Meadows.

The CDN is designed to serve six geographic areas of the park as well as the five park entrance stations. The geographic areas include El Portal, Yosemite Valley, Wawona, Crane Flat, Hodgdon Meadows, Tuolumne Meadows, and Hetch Hetchy. The final installation would be a hybrid infrastructure, based around proven microwave technology that linking the geographic areas with multiple T-3 level bandwidth managed as necessary by park staff. There would be no need to rely on an independent service provider for maintenance of the system, as the backbone would be maintained by park staff.

An environmental assessment completed for this project and released for public review in 2010. A finding of no significant impact was approved by the Regional Director in April 2010. Project implementation is underway parkwide through 2015. The tower built in 2011 will receive additional equipment (microwave dishes and radio equipment within the existing shelter and replacing the existing generator with a small one).

- Parkwide Traffic Management and Information System

This project designs and implements a real-time, information-based traffic management system to provide visitors and park staff information on traffic conditions throughout the park. This project would use the recently developed traffic model and updated traffic counter system to provide a web-based interface so that traffic and weather information can be accessed in real time.

- Parkwide Forestry Work Plan

The purpose of the Yosemite National Park Forestry Program is to detect and mitigate or abate tree hazards before they fall and cause injury or damage to people, property, or facilities. Development zones, roads, and other facilities have been established in forested areas of the park. Fire exclusion and hydrological manipulation have changed the park’s forests and woodlands, and forest stands have not stabilized. Tree failures within Yosemite National Park developed areas have killed several people, seriously injured others, and cause over a million dollars in property damage. Public Law (16 USC 3, and 54) National Park Service Management Policies (8.8), NPS-77, Special Directive 82-6, and the Yosemite Resource Management Plan, Vegetation Management Plan, and Fire Management Plan provide a framework for hazardous tree management that would minimize threats to life and property from the failure of hazard trees within developed areas. The Forestry Worker Supervisors, Park Forester, and contractors, systematically inspect the trees for visible defects and prescribe mitigations or abatement, and accomplish the work as soon as practicable, oftentimes concurrent with inspections. Supervisors evaluate pruning, topping, and removal options that might preserve important habitat prior to prescribing tree takedown. Comprehensive tree hazard management involves warning visitors and residents

that trees within the park may fall, and advisories are provided on the Yosemite National Park website, the Daily Report, and in other park publications.

- South Fork and Merced Wild and Scenic River Implementation Plan (USFS/BLM)

The purpose of this plan is to provide long-term protection of natural and cultural resources and management of the South Fork of the Merced River for the use and enjoyment of visitors, such that the river would be unimpaired for future use and enjoyment as a natural setting. The U.S. Forest Service and the Bureau of Land Management developed a joint South Fork and Merced Wild and Scenic River Implementation Plan in 1991 for the segments of the main stem and South Fork of the Merced River that are under the jurisdiction of these agencies. The segments include a 15-mile portion of the main stem extending from the El Portal Administrative Site to a point 300 feet upstream of the confluence with Bear Creek; a 21-mile segment of the South Fork that flows from the park boundary to the confluence of the Merced River; and a 3-mile segment of the South Fork just upstream of Wawona, where the National Park Service has jurisdiction over the north side of the river and the U.S. Forest Service has jurisdiction over the south side.

#### Reasonably Foreseeable Plans and Projects

- Wawona Road Rehabilitation

The purpose of this project is to pulverize and repave approximately 25 miles of the Wawona Road between Southside Drive and South Entrance including the following elements:

- Recycling (pulverizing) and overlaying the existing 24-foot wide paved road with spot reconstruction of subgrade and shoulders as required.
- Minimal drainage work involving failed or severely undersized culverts. Slip-Lining was considered for any culverts that were relatively deep.
- Minimal work at turnouts and intersections, which were within the existing paved footprint.
- Pavement borings required to design the structural section for the roadway.
- Areas disturbed by construction were revegetated under guidance of the park revegetation staff.

The project would include resurface treatment to make the existing historic Wawona Road safe for visitors and employees as it is currently aligned. The project boundaries extend from Yosemite Valley at Southside Drive to the southern park boundary near Wawona. The specific work includes patching of potholes, crack sealing, shoulder and curb repair, and placement of an overlay, microseal, or chip seal, depending upon the best design for the specific location. The existing historic Wawona Road would also be widened in select locations. The project boundaries extend from Yosemite Valley at Southside Drive to the southern park boundary near Wawona.

The last phase of this project is scheduled for completion in 2017. This phase would include the segment of the road between the park boundary and the South Entrance, and would be packaged for construction with the South Entrance intersection changes. This project would be subject to NEPA clearance through a separate compliance document.



- Transit Passenger Information System

This project will enable improved communication to park visitors on the status of the park's shuttle buses through development of a visitor information system for all the shuttle bus systems in Yosemite Valley, Mariposa Grove/Wawona, Badger Pass, and Tioga Road.

- Wawona Tunnel Safety Improvements

The purpose of this project is to improve safety within the Wawona tunnel. Work includes the design and installation of new fire extinguishers and call boxes within the tunnel, and the design and installation of approximately 2600-LF of new underground power line

- Wilderness Stewardship Plan

The National Park Service will be updating the 1989 Yosemite National Park Wilderness Management Plan. The objective of updating the plan is to provide guidance to park operations for the successful management of Yosemite's designated wilderness, which comprises approximately 94 percent of the park. Scoping for the EIS is anticipated to occur in 2013.