



Facility Foundations

Protecting and Restoring Resources Through Facility Management

Most facility management projects conjure an image of roofing a building, rehabilitating a comfort station, or repaving a road. One of the primary purposes of facility management is resource protection.

Facility Management ensures that visitors use parks in a way that allows them to enjoy the resource with minimal impacts to the resource. By maintaining trails, we protect resources from being trampled. By maintaining roads, we keep vehicles in a designated area. By maintaining trash and recycling systems, we prevent litter from degrading resources. Through visitor centers and other public facilities, we engage the public, educating them about the park and encouraging them to value and protect our resources.

Facility programs are often at the heart of cultural resource preservation, from historic preservation to protecting culturally significant sites. An earthquake in 2006 damaged the heiau at Pu'ukohola Heiau National Historic Site, but Emergency Storm Damage and Flood funding is helping the park rebuild this significant resource.



NPS Photo

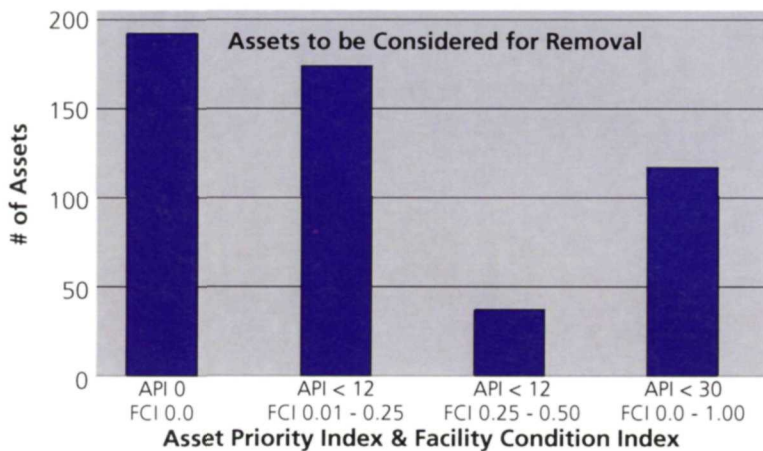
Crews rebuild the wall at Pu'ukohola Heiau NHS, which was damaged by an earthquake in 2006

The Pacific West Region has had great success in recent years in the restoration of land to its native state. Through facility management programs such as Line Item Construction, Repair/Rehabilitation, Dam Safety, and Recreational Fees, parks are able to remove roads, dams, and other obsolete structures to restore the cultural or natural landscape.

When parks prioritize assets through the Facility Management Software System

(FMSS), they have a tool to help them make decisions about which assets to keep and maintain and which assets should be removed. FMSS can be a useful resource protection tool by identifying assets that do not fit a park's historic setting, no longer serve their purpose, or compromise the protection of resources. The chart below illustrates the region's assets that could be considered for removal.

Through sustainable practices, historic preservation, restoration, and regular maintenance, facility management ensures that we balance the use of our parks without compromising their resources.



The Pacific West Region has over 600 assets that fall below acceptable facility management standards. Assets with an API less than 12, or an FCI greater than .50 and an API less than 30 could be considered for removal.

Note: This chart's assets in the first column have an API of 0 and an FCI of 0.0 and could represent data quality issues.

I N S I D E

- 2 Redwood NP
Back Safety Report
- 3 Pu'ukohola Heiau NHS
Whiskeytown NRA
- 4 Natural Resources Cyclic Maintenance
Repair/Rehabilitation Projects

Questions? Comments? Contributions?
 Contact Bretnie Grose, 206-220-4289

Redwood National & State Parks Removes Road and Rehabilitates Watershed

PMIS # 59730

Funding Source: Line Item Construction

With funding from the Line Item Construction program, Redwood National and State Parks is removing old logging roads in order to protect salmon habitat and water quality in the Lost Man Creek watershed. To date, the park has removed over 20 miles of roads and skid trails including approximately 900,000 cubic yards of fill and over 100 stream crossings in the Lost Man Creek watershed.

Logging roads in this highly erodible terrain were poorly constructed in the 1950s and 1960s then included in the park in 1978. As the roads aged, drainage structures, stream crossings, and unstable road benches have failed and delivered sediment directly into sensitive, salmon-bearing streams. Sediment released from failing roads can bury spawning and rearing habitat of threatened fish.

Landslides associated with roads can result in the loss of old growth redwood trees that provide critical habitat for terrestrial wildlife. Abandoned logging roads also pose a safety hazard to visitors and



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are expensive to maintain. Redwood geologists assessed the roads for active and potential erosional features then prioritized the most threatening and unstable roads for treatment. Restoration work focuses on removing fill from stream channels and headwater swales, stabilizing sidecast fill material, and restoring natural hillslope topography and drainage patterns. Woody debris uncovered during excavation is added to the recontoured soil surface, serving as

mulch and erosion control. Revegetation will completely cover the site in less than three years. Redwood is monitoring water quality and site conditions to measure the effectiveness of the treatments.

The rehabilitation of Lost Man Creek is scheduled for completion in 2008. Approximately 100 miles of roads remain to be treated in other areas of the park.

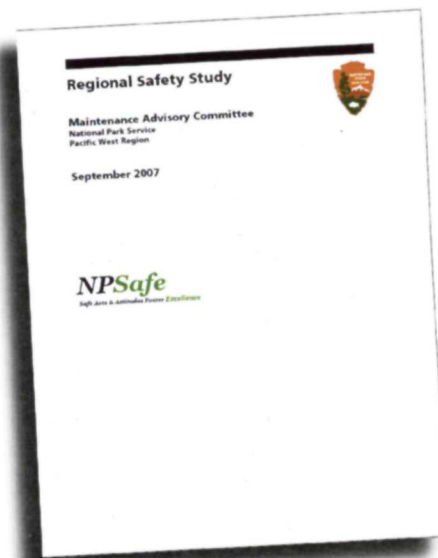
Injury Study Makes Back Safety Recommendations

The Pacific West Region's Maintenance Advisory Committee (MAC) studied back injuries in maintenance divisions in the region to find commonalities among those injuries. They found that most back injuries occurred doing solid waste collection, trail work, and general lifting.

A list of Best Management Practices was created to help prevent injuries related to three types of work that most often result in back injury. Recommendations were also made for general back safety, relevant to all types of work. Here are a few of the recommendations made:

- Solid waste collection should be contracted out when possible to reduce the risk of injury to NPS staff.
- A Job Hazard Analysis shall be provided for each activity where any safety issues may arise.
- Each year include 3-4 sessions on preventing back injuries in tail-gate meetings.
- Park units shall provide the proper equipment and tools to perform the activity if performed in-house. Physical lifting of heavy bags into vehicles, high dumpsters or other containment systems shall be kept to a minimum.
- Physical lifting is the major cause of back injuries. When lifting is required, each worker should be aware of their responsibility to perform the activity correctly. If help is needed they should feel comfortable about asking for it. All workers shall be trained in using proper lifting techniques.
- Before work starts on any project the workers should be trained on all aspects of the task. PPE, equipment use, natural hazards, first aid and any other topic that will better inform the worker on how to be safe should be presented.

We all need to do our part to ensure that all employees have the knowledge and common sense to work safely and to go home at the end of the day in good health.



Asking for assistance in accomplishing a task involving moving or lifting something heavy or awkward is a good judgment decision.

The Safety Study can be found on the Pacific West Region InsideNPS website: <http://inside.nps.gov/regions/region.cfm?lv=2&rgn=75>

Pu'ukohola Heiau NHS Removes Road and Utilities

PMIS # 5471

Funding Source: Recreational Fee Demonstration 20%

Pu'ukohola Heiau NHS removed the existing utilities (electric and water) and road along the Old Spencer Road corridor, restoring the topography and vegetation. The park regraded cuts and fills to more accurately reflect the historic scene and landscape associated with the park's commemorative period (1790-1835). The project included planning and design, archaeological surveys, and monitoring in order to ensure restoration was a success.

Old Spencer Road and the utilities along the road had been visual intrusions to the historic scene and severely impacted the integrity of Pu'ukohola Heiau. Visitors were unable to fully appreciate the historic significance of the area with the road dissecting the two temples. In addition, native Hawaiians who continue to use

the temples for traditional religious beliefs looked upon the road as an insult to the sacred site.



In addition to removing the road and utility systems, the park restored the landscape with native pili grass to accurately portray the historic landscape.

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Whiskeytown NRA Removes A-Frame Dam

PMIS # 75855

Funding Source: Dam Safety

Whiskeytown National Recreation Area deactivated the A-Frame Dam, restoring the landscape to its original condition. The Bureau of Reclamation's Maintenance, Operation, and Safety of Dams program determined that the A-Frame Dam was seriously deficient. It posed a safety hazard to the public at the picnic area and swim beach downstream.

Originally constructed in the 1950s for a horse and stock pond, the park determined that it was no longer necessary to maintain the stock pond structure and the earthen dam could be removed.

Resource Management captured fish and frogs to relocate to other areas of the park before removing the pond.

After deactivating the dam, a California Conservation Corps crew planted trees, shrubs, and other native plants to restore the natural landscape. Where the pond used to be, the park installed a trail foot-bridge crossing the stream.

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Regular Cyclic Maintenance and Natural Resources

Every year Regular Cyclic Maintenance funds projects through the Natural Resource Cyclic Maintenance program, helping to protect resources through facility management. It funds the cyclic maintenance of all fences that keep exotic plants and animals out of the park. It also funds the cyclic maintenance of park facilities, other than buildings, that primarily support natural resource management efforts, such as wildlife guzzlers and bear-proof food storage lockers.



NPS Photo

Bear-Proof Food Storage

Redwood National and State Park
PMIS # 100086

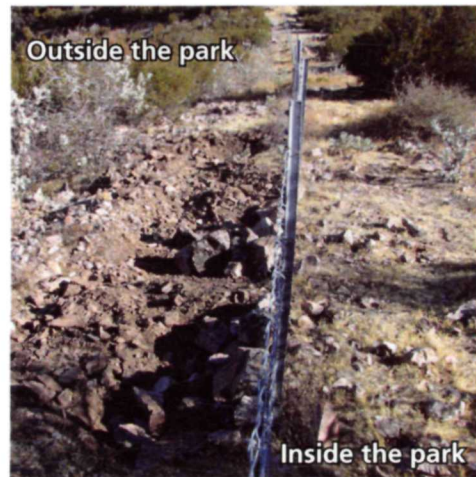
Redwood National and State Park installed bear-proof food storage and solid waste containers in campgrounds and other areas of the park. Maintaining bear-proof food storage in campgrounds helps preserve black bear habitat, keeps bear populations behaving naturally, and keeps visitors safe. Updating food storage and garbage disposal systems prevents bears from obtaining human food, which poses a threat to the safety of the visitors as well as the bears.

Park Fencing

Pinnacles National Monument
PMIS # 105027

Pinnacles National Monument maintains 32 miles of fence in the park to prevent cattle and exotic wild pigs from entering the park. These fences protect the natural

and cultural resources on approximately 14,000 acres of park land. Required maintenance on the fence includes repairing broken or failing sections, replacing braces, re-anchoring posts, stretching wire, and brushing vegetation to reduce the potential for fire damage.



NPS Photo

The South Chalone fenceline in Pinnacles NM shows how wild pigs have destroyed the native plants outside the park (left) while inside the park boundary, resources are untouched (right).

Building Removals through Repair/Rehabilitation

The Repair/Rehabilitation program has funded numerous building and road removal projects that aim to restore natural park conditions.

Remove Collapsed Structures

Hagerman Fossil Beds National Monument
PMIS # 79811

Hagerman Fossil Beds National Monument removed two partially collapsed structures along the Snake River. The structures, previously used for duck hunting, posed a health and safety risk to the public and employees. Once

the structures were removed, the park planted native vegetation to restore the area's original state.

Remove Abandoned Facilities

Point Reyes National Seashore
PMIS # 108435A

Point Reyes National Seashore removed buildings on the abandoned AT&T property on the Point Reyes Headlands, at the park's previous North District Protection Facilities, and at the Horick Dairy (D Ranch). The targeted buildings contained hazardous materials such as asbestos and lead paint and constituted

a health and safety risk to visitors and threatened plant species.

Among the structures removed were seven wooden framed buildings, one concrete building, 2,150 feet of agricultural fencing, 26,000 square feet of asphalt road and parking lot, and 250 cubic yards of concrete and other structural support members.

The removal of these structures enhanced the coastal viewshed, improved natural processes, reduced safety and health threats, and restored native habitat. A total of 522 acres of grassland were restored to a natural state.

Joe Dunstan Wins Accessibility Award

Pacific West Region's Regional Accessibility Program Coordinator, Joe Dunstan, was presented the 2007 Accessibility Leadership Achievement Award. He won the award for his active leadership in improving accessibility in the region's parks.

Just a few of Dunstan's accomplishments that earned him the award include:

- Participation in the TELNET presentation on Accessibility in December 2006 at the National Training Center, which was broadcast to all NPS park units.

- Coordinated with the National Center on Accessibility to provide three training programs for park accessibility coordinators and NPS consultants.
- Assisted in and supported accessibility condition assessments at several parks.
- Organized the investigation and remediation of formal U.S. Access Board and Equal Employment Opportunity complaints for the region to ensure better tracking and communication.

