# EXECUTIVE SUMMARY

This *Merced Wild and Scenic River Comprehensive Management Plan and Draft Environmental Impact Statement* (*Merced River Plan/DEIS*) addresses all elements required by the Wild and Scenic Rivers Act (WSRA) for the management of a designated river. It analyzes these elements by following and documenting planning processes required by the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and other legal mandates governing National Park Service (NPS) decision-making.

Readers can gain a summary of proposed actions by reviewing, at a minimum, the following sections:

- 'Merced River Plan / DEIS' Document Organization (page 1-4)
- "Alternatives" (Chapter 8)
  - Process Used to Develop the Alternatives (pages 8-1 to 8-7)
  - Actions Common to Alternatives 2-6 (pages 8-53 to 8-102)
  - Alternative 1 (No Action) Overview (pages 8-13 to 8-28)
  - Alternative 2 Overview (pages 8-103 to 8-144)
  - Alternative 3 Overview (pages 8-145 to 8-160)
  - Alternative 4 Overview (pages 8-187 to 8-203)
  - Alternative 5 (Preferred) Overview (pages 8-231 to 8-246)
  - Alternative 6 Overview (pages 8-273 to 8-288)
  - Summary Comparison Table (pages 8-330 to 8-331)

Readers who wish to review the plan in more depth will find more decision-making details here:

- Goals of the Merced River Plan (Chapter 1: page 1-3)
- Identification of Planning Issues: Public and Internal Scoping (Chapter 2: pages 2-13 to 2-18)
- Key Concepts for River Management under WSRA (Chapter 5: pages 5-6 to 5-10)
- Part III User Capacity Discussion (Chapter 6: pages 6-12 to 6-43)

## THE MERCED WILD AND SCENIC RIVER

The Merced Wild and Scenic River, designated in 1987, includes 122 miles of the Merced River on the western side of the Sierra Nevada range in California. The NPS manages 81 miles of the Merced Wild and Scenic River through Yosemite National Park, including the headwaters and both the Merced River's main stem and the South Fork Merced River (Figure ES-1). As the Merced River flows outside Yosemite's western boundary, the U.S. Forest Service and the Bureau of Land Management manage the next 41 miles of the Merced Wild and Scenic River.

The main stem of the Merced River originates high in the Sierra Nevada on the eastern side of Yosemite in several watersheds: the Lyell Fork, Triple Peak Fork, Merced Peak Fork, and Red Peak Fork. From its headwaters, the main stem of the Merced River flows freely through Yosemite's Wilderness, a landscape of alpine peaks, glacially carved valleys, and high-elevation meadows. The main stem of the river and several of its

tributaries make a dramatic entry into Yosemite Valley, rushing over towering cliffs in prominent waterfalls. As the river's gradient lessens, it meanders through the rich meadow and riparian habitat of Yosemite Valley. At the west end of Yosemite Valley, the Merced River canyon narrows, and the river becomes a cascade of continuous rapids through the Merced Gorge. The gradient changes abruptly at the park boundary, where the river continues through the El Portal Administrative Site on its journey through the Sierra Nevada foothills to the Central Valley of California.

**Figure ES-1: Merced Wild and Scenic River and Vicinity**


The South Fork Merced River originates high in the Sierra Nevada on the eastern side of Yosemite National Park, draining the southwestern slopes of Triple Divide Peak and the west facing slopes of Gale Peak and Sing Peak. From its headwaters, the South Fork Merced River flows southwest through the Yosemite Wilderness (south of the Clark Range) and eventually through the community of Wawona. At the western park boundary, the South Fork flows through the Sierra National Forest to the confluence of the main stem of the Merced River west of El Portal.

The river has been central to a dynamic natural and cultural landscape for tens of thousands of years, and it continues to shape the landscape today. Ecological processes between the river and its floodplain support a wide elevational range of riparian and meadow communities providing habitat for a rich diversity of plants and wildlife. The river's cultural heritage includes American Indian cultural traditions associated with the river that continue to the present day, along with the history associated with one of the nation's first

national parks. Today the Merced River attracts millions of Yosemite visitors who enjoy opportunities for recreation, education, reflection, and inspiration in the sublime beauty of the river corridor.

## PURPOSE AND NEED FOR THE 'MERCED RIVER PLAN /DEIS'

The NPS is considering what long-term, comprehensive guidance will best protect and enhance the 81 miles of the Merced Wild and Scenic River within Yosemite. WSRA requires comprehensive planning for Wild and Scenic Rivers to provide for the protection of the river's free-flowing condition, water quality, and the outstandingly remarkable values that make it worthy of designation. In accordance with WSRA "the plan shall address resource protection, development of lands and facilities, user capacities, and other management practices necessary or desirable to achieve the purposes of this Act" (WSRA Section 3(d)). In addition, this plan must also fulfill the specific direction of the 1987 legislation designating the Merced River as a component of the National Wild and Scenic Rivers System.

Specifically, the purpose of the plan, as defined by WSRA and its implementing guidance is to:

- Establish the boundaries and segment classifications (as wild, scenic, or recreational) of the Merced Wild and Scenic River (see Chapter 3).
- Provide a clear process for protection of the river's free-flowing condition in keeping with WSRA Section 7 (see Chapter 4).
- Refine descriptions of the river's *outstandingly remarkable values* (ORVs), which are the unique, rare, or exemplary river-related characteristics that make the river eligible for inclusion in the National Wild and Scenic Rivers System (see Chapter 5).
- Document the conditions of river values, including water quality, free-flowing condition, and outstandingly remarkable values (ORVs) (see Chapter 5).
- Identify management objectives for the river, and specific actions and/or programs that will be implemented to achieve the objectives (see Chapter 5).
- Commit to a program of ongoing studies and monitoring to ensure that river values are protected and enhanced over the life of the plan (see Chapter 5).
- Establish a user-capacity program that addresses the kinds and amounts of public use that the river corridor can sustain while protecting and enhancing the river's outstandingly remarkable values (see Chapters 6 and 7).

This is the third management plan prepared for the Merced Wild and Scenic River within Yosemite. In 2009, the NPS settled a long-running lawsuit challenging the adequacy of the two prior versions of the Merced River Plan (prepared in 2000 and 2005). The need for the *Merced River Plan/DEIS* also derives from the *2009 Settlement Agreement*, under which the NPS agreed to complete a new comprehensive management plan for the Merced Wild and Scenic River. Chapter 2 of this *Merced River Plan/DEIS* summarizes the history of the lawsuit and the relevance of the settlement agreement to the development of this comprehensive river management plan.

### Outstandingly Remarkable River Values

As noted above, WSRA requires comprehensive planning for the Merced Wild and Scenic River to provide for the protection of the river's free-flowing condition, water quality, and the outstandingly remarkable

values (ORVs) that make the river worthy of designation. The ORVs of the Merced River are defined in this plan as follows:

### *Biological Values*

1. The Merced River sustains numerous small meadows and riparian habitat with high biological integrity.
2. The meadows and riparian communities of Yosemite Valley comprise one of the largest mid-elevation meadow-riparian complexes in the Sierra Nevada.
3. Sierra sweet bay (*Myrica hartwegii*) is a rare plant found on river banks of the South Fork Merced River.

### *Geologic/Hydrologic Values*

4. The upper Merced River canyon is a textbook example of a glacially carved canyon.
5. The "Giant Staircase," which includes Vernal and Nevada Falls, is one of the finest examples in the western United States of stair-step river morphology.
6. The Merced River from Happy Isles to the west end of Yosemite Valley provides an outstanding example of a rare, mid-elevation alluvial river.
7. The boulder bar in El Portal was created by changing river gradients, glacial history, and powerful floods. These elements have resulted in accumulation of extraordinarily large boulders, which are rare in such deposits.

### *Cultural Values*

8. Yosemite Valley American Indian ethnographic resources include a linked landscape of specifically mapped traditional-use plant populations as well as the ongoing traditional cultural practices that reflect the intricate continuing relationship between indigenous peoples of the Yosemite region and the Merced River in Yosemite Valley.
9. The Yosemite Valley Archeological District is an unusually rich and linked landscape that contains dense concentrations of resources that represent thousands of years of human settlement.
10. The Yosemite Valley Historic Resources represent a linked landscape of river-related or river-dependent, rare, unique or exemplary buildings and structures that bear witness to the historical significance of the river system.
11. The El Portal Archeological District contains dense concentrations of resources that represent thousands of years of occupation and evidence of continuous, far-reaching traffic and trade. This segment includes some of the oldest deposits in the region and archeological remains of the Johnny Wilson Ranch, a regionally rare historic-era American Indian Homestead.
12. The South Fork Merced River above Wawona includes regionally rare archeological features representing indigenous settlement and use along the South Fork Merced River at archeological sites with rock ring features.
13. The Wawona Archeological District encompasses numerous clusters of resources spanning thousands of years of occupation, including unusually rich evidence of continuous far-reaching traffic and trade. In Segment 7, remains of the U.S. Army Cavalry Camp A. E. Wood document the unique Yosemite legacy of the African-American Buffalo Soldiers and the strategic placement of their camp near the Merced River.

14. The Wawona Historic Resources ORV includes one of the few covered bridges in the region and the National Historic Landmark Wawona Hotel complex. The Wawona Hotel complex is the largest existing Victorian hotel complex within the boundaries of a national park, and one of the few remaining in the United States with this high level of integrity.

### *Scenic Values*

15. Visitors to the Merced River above Nevada Fall experience exemplary views of serene montane lakes, pristine meadows, slickrock cascades, and High Sierra peaks.
16. Visitors to Yosemite Valley experience views of some of the world's most iconic scenery, with the river and meadows forming a placid foreground to towering cliffs and waterfalls.
17. Through the Merced Gorge, the Merced River drops 2,000 feet over 14 miles, a continuous cascade under exemplary Sierra granite outcrops and domes.
18. The South Fork Merced River below Wawona passes through a vast area of exemplary and wild scenic beauty.

### *Recreational Values*

19. Visitors to federally designated Wilderness in the corridor engage in a variety of river-related activities in an iconic High Sierra landscape, where opportunities for primitive and unconfined recreation, self-reliance, and solitude shape the experience.
20. Visitors to Yosemite Valley enjoy a wide variety of river-related recreational activities in the Valley's extraordinary setting along the Merced River.

## OVERVIEW OF THE PLAN AND ALTERNATIVES

The *Merced River Plan* focuses on protecting and enhancing river values; therefore, many of the actions that would be taken to address management issues related to those values are common to all the action alternatives. For example, a comprehensive ecological restoration program for river-related meadow and riparian habitat is a central component of the plan that is included in all the action alternatives (Alternatives 2-6). The alternatives presented in Chapter 8 of the *Merced River Plan/DEIS* cover all 81 miles of the river corridor but vary, primarily, in how they will balance the protection of river values with different kinds of visitor use and associated user capacities.

## Protection and Enhancement of River Values in the Merced River Plan

### *Free-Flowing Condition*

The Merced River in Yosemite is free-flowing with few impediments. Under the *Merced River Plan*, the NPS will protect its free-flowing condition by implementing a process under Section 7 of WSRA to ensure that no potential water resource project within the bed and banks of the river would have a direct and adverse effect on this river value.

At the time of the river's designation (1987), the natural flow regime had been altered in several locations by bridges, abandoned infrastructure in the river channel, riprap, water withdrawals for domestic use, and altered riverbank and channel conditions. These management considerations remain. The *Merced River Plan/DEIS* evaluates a range of options to address these issues, including removing large stretches of riprap,

removing or retaining bridges (many of which are historic), removing abandoned infrastructure from the bed and banks of the river, and using bio-engineering techniques to stabilize riverbanks and increase channel complexity.

## *Water Quality*

The Merced River has exceptionally high water quality. All the measured indicators are within the NPS standards, which are considerably more protective than other federal or state standards. Although water quality is protected, a few risks are present within the river corridor, including surface water run-off in developed areas, potential hazards related to dump stations, septic tanks and leach fields, and accelerated erosion and potential sediment loading in the river. The *Merced River Plan/DEIS* addresses risks to water quality with a suite of actions to re-route stock trails that could affect water quality, move parking areas away from the river and/or construct stormwater run-off infrastructure; develop a wastewater collection system for Wawona Campground, and relocate dump stations.

An ongoing monitoring program will continue to test for nutrients, *E. coli*, and petroleum hydrocarbons to ensure that the exceptional baseline water quality is sustained over time. Decreasing water quality for any of these indicators will initiate more frequent sampling trigger studies to identify the source of the concern. Depending on the source, appropriate action will be taken to address the concern prior to an adverse effect. If the concern is related to visitor use, the use will be managed as needed to protect this river value.

## *Biological Values*

### High-elevation Meadows and Riparian Habitat

In 2010 and 2011, park staff evaluated the condition of high-elevation meadows and riparian areas and found high ecological integrity, with the exception of some site-specific impacts in subalpine meadows. Conditions at the time of the river's designation in 1987 were likely similar. Based on these recent assessments, NPS management considerations for specific subalpine meadow areas include high levels of bare soil, heavily grazed vegetation, evidence of stock-related disturbance, informal trails (visitor-created trails that are not directly managed by park staff), and extirpated or declining meadow and riparian wildlife species. In response, the *Merced River Plan/DEIS* evaluates actions to remove informal trails throughout the high-elevation meadow and riparian areas and options for stock use management that range from elimination of administrative pack stock grazing in certain areas to establishing grazing capacities. The alternatives also continue NPS policy to remove non-native species and re-introduce extirpated or declining wildlife species, as opportunities arise.

An ongoing program of monitoring and study will continue to be implemented to ensure that the high-elevation meadow and riparian habitat is returned to good condition and remains in good condition over the life of the plan. A suite of three indicators will be used to track the health and potential for impact on this complex river value. An important part of the monitoring program will be management triggers that identify any decline from "good" condition under any of the three indicators well before an adverse effect occurs. Any of these triggers would require additional action to protect the high-elevation meadow and riparian habitat.

### Mid-elevation Meadows and Riparian Habitat in Yosemite Valley

At the time of the river's designation in 1987, the impacts on meadow and riparian areas in Yosemite Valley included an altered hydrologic regime, loss of meadow extent, stresses on meadows caused by human use, accelerated bank erosion, denuded meadow and riparian vegetation in high-use areas, and poorly designed riprap revetment. While the NPS has taken action since designation to address several problem areas, many of these issues remain. Current NPS management concerns for this value include the proliferation of informal trails that lead to meadow fragmentation, conifer encroachment into meadows, impacts of non-native species, human-caused alterations to meadow topography, and formal trails that pass through sensitive meadow habitat.

The *Merced River Plan/DEIS* addresses these management concerns through a comprehensive program of ecological restoration and management of visitor use and development. Ecological restoration will include actions to decompact trampled soils and re-vegetate impacted areas, restore natural meadow topography, and re-vegetate riverbanks with native riparian shrubs and trees. Management of visitor use and development will include establishing a riparian buffer that precludes new development within 150 feet of the ordinary high-water mark. The plan will also remove and/or relocate some existing infrastructure, such as campsites in close proximity to the river, from a riparian buffer zone.

Additional actions will include removal of informal parking in meadow and riparian areas and removal of approximately six miles of informal trails through meadows; re-direction of visitor use to stable and resilient river access points; use of boardwalks or hardened surfaces to allow access to sensitive meadow areas; and increased visitor education. These actions are expected to enhance the meadow and riparian habitat and allow for long-term management in a condition equal to or better than the management standards. (Additional management of visitor use and development to further enhance this value is explored through alternative proposals to guide use to resilient areas or relocate development; these actions are explored in the range of alternatives in Chapter 8).

### The Sierra Sweet Bay (*Myrica hartwegii*)

At the time of the river's designation in 1987, botanists considered the Sierra sweet bay to be rare in Yosemite, but not threatened by local impacts. Based on 2010 surveys, the Sierra sweet bay population in Yosemite National Park is in good condition. The Merced River Plan includes a program to monitor the condition of the Sierra sweet bay population, and actions to protect this rare species if conditions decline.

## *Geologic/Hydrologic Values*

### Glacially carved Upper Merced River Canyon

The glacially carved river canyon is considered impervious to human activity. Natural processes will continue to shape the landscape and the associated river value. No action other than continued protection under WSRA is proposed by the plan.

### "Giant Staircase," including Vernal Fall and Nevada Fall

Stairstep river morphology is considered impervious to human activity. Natural processes will continue to shape the landscape and the associated river value. No action other than continued protection under WSRA is proposed by the plan.

### Rare, Mid-elevation Alluvial River

This river value integrates geologic/hydrologic processes and the condition of aquatic, riparian, and floodplain communities. Its condition is closely related to the free-flowing condition of the river and the mid-elevation meadows and riparian habitat river value discussed above. In addition to the issues identified for the these river values, management considerations for this value include riverbank erosion in localized areas, lack of natural levels of large wood in the river system, altered surface and groundwater flow, and floodplain connectivity.

In addition to the actions to protect and enhance the free-flowing condition of the river and the mid-elevation meadows and riparian habitat river values listed above, the *Merced River Plan/DEIS* includes actions to improve fundamental alluvial processes in Yosemite Valley, including leaving large wood in the river channel that does not compromise visitor safety or infrastructure; placing large wood in the river to enhance channel complexity and mitigate scouring caused by bridges; placing log jams at specific locations in the river channel; and incorporating large wood into riverbanks to provide natural structure and increase habitat quality.

### Boulder Bar in El Portal

The large boulder bar at the east end of El Portal is considered impervious to human activity. Natural processes will continue to shape the landscape and the associated river value. No action other than continued protection under WSRA is proposed by the plan.

## *Cultural Values*

### Yosemite Valley American Indian Ethnographic Resources

The discontinuation of traditionally associated American Indian practices, such as seasonal burning, selective pruning, tilling, timely harvesting, and propagation, had impacted ethnographic resources when the river was designated in 1987. Historic activities had also altered traditionally used meadow and oak habitat. In addition, by the time of designation, the introduction of non-native plant species had encroached on populations of traditional use plants in Yosemite Valley. All of these changes had likely led to alterations in the abundance and integrity of ethnographic resources, changes which persist today.

Since the river's designation in 1987, the NPS has begun restoration of sensitive resource areas to conditions resembling those found prior to intensive historic-era settlement. However, recent California black oak studies in Yosemite Valley indicate that ecological restoration action to restore a healthier sapling to non-sapling ratio is needed to promote a healthy black oak population in the Valley.

The current NPS mission encourages and seeks to facilitate ongoing cultural connections between traditionally associated American Indian communities and ancestral park lands and resources. Management considerations remain regarding the impact of non-native species, altered meadow hydrology, altered or denuded riparian vegetation, park operations, crowding, and visitor use on traditional-use plant populations and access to ethnographic resources. In response, the *Merced River Plan/DEIS* will continue to coordinate with traditionally associated American Indian tribes and groups and traditional practitioners in the development and implementation of park programs related to law enforcement, fire management, interpretation, ecological restoration, and facilities management. In addition, the ecological restoration program proposed in the *Merced River Plan/DEIS* will address existing impacts on traditionally used plant populations and will protect these populations over the life of the plan.

### Yosemite Valley Archeological District

At the time of the river's designation, the district retained integrity despite impacts from facility and administrative use, visitor use, and ecological processes that can impact archeological sites. The majority of archeological sites in Yosemite Valley still retain a relatively high degree of integrity; however, many have been disturbed by human activity or natural processes. Recent assessments found 47% of sites are rated in "good" condition, an additional 33% are in "fair" condition, and 18% are in "poor" condition. Disturbance severities range from 39% of sites with low disturbance, to 33% of sites with moderate disturbance severity, to 25% of sites with severe disturbances. Impacts on these sites include soil compaction, vegetation damage, movement of artifacts, feature disturbance, and vandalism. Some of these impacts are caused by formal and informal trails, stock impacts, parking, rock climbing and other visitor-use activities, such as camping.

Under the *Merced River Plan/DEIS*, sites will continue to be monitored. The potential for impacts will be greatly reduced by actions to manage visitor-use levels, divert foot traffic and stock use away from sites, remove informal trails, formalize river and meadow access locations, and mitigate ecological restoration practices by using non-invasive techniques wherever possible. Many of the actions related to the plan's ecological restoration program in Yosemite Valley, such as removing or delineating roadside parking, will also help protect archeological sites by diverting foot traffic away from sites and into less sensitive areas. The plan also proposes developing site-specific treatment actions through site management plans, where necessary, to avoid resource loss through park actions (such as development, repair, and maintenance of facilities and underground utilities to support visitor use). Any future downward trend in site conditions associated with human use will trigger a required management response to counteract or minimize the effect before an adverse impact occurs.

### Yosemite Valley Historic Resources

Recent assessments indicate that a number of building and structures that are an integral part of this river value, including National Historic Landmarks, are currently in "fair" condition. Residence 1, also known as the Superintendent's House, is in "poor" condition. Under *The Merced River Plan/DEIS,* preservation maintenance and/or repairs would occur sufficient to return these buildings and structures to "good" condition and to arrest ongoing deterioration of other elements. Specific actions called for in the plan would be further developed through consultation with the California State Historic Preservation Office and reflected in detail in the *Merced River Plan/DEIS* programmatic agreement. If future monitoring under the NPS List of Classified Structures assessment program detects deterioration or damage, repairs will be undertaken to correct the deficiency while the structure is still in an overall good condition.

In addition, the plan would continue the existing program of historic building and structures maintenance and repair in Yosemite Valley, employ design guidelines for new development or re-development, periodically assess and update documentation, and maintain the essential qualities of individual historic developed areas in Yosemite Valley.

### El Portal Archeological District

Sites within the El Portal Archeological District have been impacted by from historic development, more recent NPS administrative uses, and visitor use. The condition of the district has not changed significantly from the time of the river's designation in 1987. NPS management considerations for this river value include abandoned infrastructure located on an exceptional and extremely sensitive site that is highly valued by traditionally associated American Indians. In addition, informal trails, gravel roads, and visitor use are

contributing to site disturbance. The *Merced River Plan/DEIS* will protect these sites by removing informal trails, non-essential gravel roads, and abandoned infrastructure. The aforementioned site with high cultural significance for traditionally associated American Indians will be protected from any further development. A plan of action for addressing the abandoned infrastructure on that particular site will be developed in consultation with traditionally associated American Indian tribes and groups.

### Archeological Sites in High Elevations along the South Fork Merced River

Three regionally rare prehistoric archeological sites on the South Fork Merced River are fragile and highly susceptible to human alteration from visitor use. Documentation of these sites is incomplete. Since the time of the river's designation in 1987, a 1992 survey documented damage where visitors built a campfire in one site. Site visits in 2000 and 2002 found that two of the sites were in "good" and "fair" condition. In 2005, a site visit noted disturbance by campers; this is likely the same site surveyed in 1992. Under the *Merced River Plan/DEIS*, the NPS will complete documentation for these sites, restrict Wilderness camping in the area, remove informal trails near the sites, and increase education and outreach to Wilderness travelers.

### Wawona Archeological District

A recent condition assessment of the total 59 sites in the Wawona Archeological District within the Merced River corridor found that 33% (19 sites) are in "good" condition, with an additional 38% (23 sites) in "fair" condition, and 19% (11 sites) in "poor" condition. Four sites could not be relocated during an attempted field visit, and two sites with unknown conditions were not visited as part of the project because they were outside the project area. Impacts seen at archeological sites in the district fall into largely the same categories as those noted in the Yosemite Valley and El Portal archeological districts: administrative/facilities-related impacts such as campground and infrastructure maintenance, visitor-use impacts (including general trampling, artifact collection, and creation of informal trails), and natural impacts, such as flooding and erosion.

Under the *Merced River Plan/DEIS*, the NPS will address these issues by increasing monitoring frequency at affected sites, removing seven campsites from Wawona Campground, removing informal trails and fire rings in proximity to a site, and revising the Wawona Archeological District's National Register nomination to reflect changes in the district since its nomination to the register in 1979.

### Wawona Historic Resources

Two historic resources listed on the National Register are included within this value: the Wawona Covered Bridge and The Wawona Hotel National Historic Landmark. Currently, the Wawona Covered Bridge is considered to be in "good" condition. A recent condition assessment of the Wawona Hotel Complex indicates that the hotel complex continues to retain a high degree of historical integrity. There are a total of eight buildings and structures at the hotel, seven of which are assessed as in "good" condition, with some related contributing elements like wood siding and trim in "poor" condition. One building, Clark Cottage, was found to be in "fair" condition. Under *The Merced River Plan/DEIS,* preservation maintenance and/or repairs would occur sufficient to maintain the condition of buildings and structures currently in "good" condition, return the Clark Cottage to "good" condition, and to arrest any ongoing deterioration of other elements. If future monitoring under the NPS List of Classified Structures assessment program detects deterioration or damage, repairs will be undertaken to correct the deficiency while the building or structure is still in an overall "good" condition.

## *Scenic Values*

### Scenic Views in Wilderness

Scenic views along the Merced River in Wilderness are largely unaffected by human activity. Views from the river and along trails include very few human-made features, most of which are clustered at specific locations. Scenic vistas can sometimes be obscured by regional air pollution. In addition, local wild and prescribed fires sometimes limit the visual range from higher elevations and vistas or views located within the river corridor.

At Merced Lake High Sierra Camp, which is located outside of designated Wilderness, there are rustic structures, trails, footbridges, utility buildings and tents visible from Wilderness. In the *Merced River Plan/DEIS*, the NPS is considering options for removing the High Sierra Camp, or keeping the camp and replacing tent fabric using colors that blend with the landscape (the options vary by alternative). In other locations specific to Wilderness, no further development or resource extraction can occur. To prevent management issues from re-developing, the *Merced River Plan/DEIS* monitoring program will subject any proposed structures to a contrast analysis, complemented by periodic monitoring, and a suite of actions to be taken should new scenic issues be identified. In addition, the NPS will continue to participate in regional efforts to monitor air quality throughout the park.

### Iconic Scenic Views in Yosemite Valley

Natural scenery in Yosemite Valley was key to the creation of Yosemite National Park. Much of the infrastructure in Yosemite Valley was developed to take advantage of abundant views of spectacular waterfalls, towering granite walls, and the interface of river, rock, meadow, and forested valley floor. Views from the river and designated vista points have retained high aesthetic value. Management considerations for scenic values in Yosemite Valley revolve around (1) visual intrusions associated with human-built structures, including parking, roads and traffic in meadows and the presence of certain facilities, (2) vegetation growth at scenic viewpoints, and (3) riverbank erosion, informal trails, and denuded riparian vegetation that affect views of the river or river-dependent resources.

The *Merced River Plan/DEIS* considers the presence of existing structures, major facilities, and services provided for visitors in the context of WSRA requirements. Under all alternatives, several structures and facilities will be removed, such as recreational facilities — such as pools, bike rentals, and the ice rink — abandoned bridge footings, and large stretches of riprap. All action alternatives propose a 150-foot riparian buffer to insulate the river from new development and protect views from the bed and banks. The ecological restoration program, included in all action alternatives, would also address disturbance in meadows, along riparian zones, and on riverbanks. The plan alternatives vary when addressing new development or relocation / removal of existing lodging, campsites, parking, and housing.

In addition, the *Merced River Plan/DEIS* will implement recommendations from the *Scenic Vista Management Plan for Yosemite National Park Environmental Assessment* to manage 47 vista points in the river corridor, primarily through mechanical thinning of conifers that obscure scenic views.

### Scenic Views in the Merced River Gorge

There have been some changes to scenic views in the Merced River Gorge, along El Portal Road, since the river's designation in 1987. The El Portal Road was severely damaged by the 1997 flood and was re-built and updated to meet contemporary safety standards. The road's rock walls and barriers were re-built in keeping

with historic character. The scenic quality of the Big Oak Flat Road/El Portal Road junction improved when the Cascades Diversion Dam and associated features were removed from the Gorge. The historic powerhouse and the Arch Rock entrance station/comfort station remain in place. Natural processes will continue to shape the landscape and the scenic river value. No action related to scenic values in this area, other than monitoring and continued protection under WSRA, is proposed by the *Merced River Plan/DEIS*.

#### Scenic Wilderness Views along the South Fork Merced River

Scenic views in wild segments along the South Fork Merced River, including portions of the river corridor in designated Wilderness, are unaffected by human activity. The NPS will continue to participate in regional efforts to monitor air quality throughout the park.

### *Recreational Values*

#### Wilderness Recreation above Nevada Fall

At the time of designation, the wild segment of the Merced River above Nevada Fall offered outstanding opportunities for river-related recreation characterized by self-reliance and solitude, and those opportunities continue today. The most common visitor activities within the corridor are hiking, backpacking, stock use, and lodging at the Merced Lake High Sierra Camp. Since the 1970s, an overnight zone capacity and trailhead quota system has helped protect this river value, particularly in more remote portions of the segment. Current management considerations include crowding at designated backpacker camping areas and high encounter rates on trails, particularly on busy weekends, although all conditions remain above the management standards for this ORV that will be implemented under the *Merced River Plan/DEIS*. The plan considers a variety of actions that could be taken to reduce zone capacities and trailhead quotas, expand designated camping areas, or disperse overnight use more broadly throughout the segment to enhance this recreational value. Regardless of which alternative is selected, the NPS will continue to monitor visitor encounter rates and take additional action in the future if necessary to protect the opportunities for primitive and unconfined recreation, self-reliance, and solitude that characterize this recreational value.

#### River-related Recreation in Yosemite Valley

At the time of designation, visitors to Yosemite Valley were participating in a wide diversity of activities, including sightseeing, scenic driving, day hiking, wildlife viewing, picnicking, floating, creative arts, camping, lodging, bicycling, nature study, rock climbing, and ranger-led programs. All of these activities are ongoing, and most have been determined to be river-related and contributing to this ORV (notable exceptions being lodging and many of the commercial services in the Valley).

A 1992 study near the time of designation found that the large majority of visitors rated their experiences as very good or better. However, a significant number also expressed that there was too much vehicle traffic and too many people in Yosemite Valley. The most recent survey of visitor satisfaction, conducted in 2005, found that more than half of all visitors were experiencing crowding.

This management concern will be addressed in the *Merced River Plan/DEIS* by implementing a user-capacity program that either reduces visitor use or increases the facilities necessary to support use without adversely affecting either resource values or the visitor experience. A major component of all the plan alternatives is decreasing traffic congestion through roadway, parking, and transit improvements; reducing congestion at

popular attractions by dispersing use to appropriately designed destinations; and removing unnecessary services and facilities, including many of the commercial services currently provided in the Valley. The alternatives explore different ways of balancing day and overnight opportunities, both of which are experiencing demand that exceeds the capacity of the current facilities. In all alternatives, the overnight capacity will be controlled through camping and lodging availability, and the day capacity will be controlled through the availability of day parking.

The effectiveness of using the day parking supply in Yosemite Valley to manage day-use capacity will be monitored through an indicator that compares the number of vehicles actually parking in Yosemite Valley with the supply of designated parking provided under the plan. Additional management actions to identify issues and enforce the designated user capacity will be triggered by the exceedance of standards developed for this indicator.

## Overview of the Alternatives

Six alternatives (a No Action alternative plus five action alternatives) under consideration in the *Merced River Plan/Draft EIS* involve primarily a reasonable range of variations in visitor use and user capacity. A table comparing the user capacities of the alternatives is included at the end of this section.

### *Alternative 1: No Action*

Alternative 1, also known as the "No Action Alternative," is required by NEPA implementing regulations and serves as a baseline from which to compare the action alternatives. Alternative 1 represents existing conditions in 2011, when the NPS completed a series of research studies to assess the conditions of river values in the Merced River corridor. This alternative assumes that current trends in the conditions of natural and cultural resources and visitor experiences would continue, consistent with the management activities that are ongoing under currently approved plans. Future actions that would require additional planning and environmental compliance could still occur, independent of the *Merced River Plan/DEIS*, but they are not considered part of the No Action Alternative for the purposes of conducting environmental compliance for the *Merced River Plan/DEIS*.

#### Summary of Current Actions and Issues Affecting River Values

Under Alternative 1 (No Action), the NPS would not adopt a comprehensive management plan to protect and enhance river values in the corridor. The two prior versions of the river plan would not be in effect because the courts determined that prior versions of the plan were invalid. The river corridor would be ¼ mile on either side of the ordinary high-water mark because WSRA provides for these default boundaries in the absence of agency designated boundaries. The segment classifications would be the same as those in the 1982 National Rivers Inventory. There would no Section 7 Determination Process.

The ORVs would continue to be protected by ongoing management programs although management considerations and concerns would continue, as discussed in Chapter 5. In addition, ecological restoration actions would be limited to those that would only require a Categorical Exclusion in compliance with NEPA, and those identified in the *2009 Settlement Agreement*. The NPS would also continue invasive species control where such plants are present as well as conifer removal from some meadows.

Although the ecological restoration possible without a comprehensive plan would mitigate some impacts to river values, management considerations and concerns associated with the current management of the river corridor (which the *Merced River Plan/DEIS* is intended to address) would generally continue under the No Action Alternative. These issues are not repeated here (although they are reiterated from Chapter 5 in the No Action Alternative in Chapter 8).

### Summary of Current User Capacities, Land Use, and Facilities Management

Under the No Action Alternative, existing user-capacity management actions would continue. These include the use of the wilderness permit system for overnight use of the backcountry and the reservations systems for camping and lodging accommodations. Day use would remain unlimited. Traffic congestion would be managed by staff directing traffic, maximizing parking efficiency, and diverting inbound traffic away from Yosemite Valley if no parking was available during peak use days. Pilot transit programs would continue to provide limited additional service to destinations within the river corridor, including Yosemite Valley. There would be no established limit to the number of visitors or vehicles that would be allowed within the corridor. All existing services and facilities would be retained.

Visitors would continue to have unmanaged access to many locations and services. However, during peak hours of the busiest peak season days, traffic congestion and crowding at poplar attractions would continue to significantly affect the quality of the experience for many visitors.

## *Alternative 2: Self-Reliant Visitor Experiences and Extensive Floodplain Restoration*

The guiding principles of Alternative 2 would include maximizing the restoration of the 100-year floodplain by removing infrastructure not essential to resource-related recreation, and creating a more self-reliant visitor experience, where fewer commercial services would be available. Visitor-use levels would be managed to allow for visitor experiences free of crowding or congestion.

Management actions in Alternative 2 would:

- Restore 347 acres of meadow and riparian habitat.
- Slightly reduce the available campsites in all river segments (-8%) and in Yosemite Valley (-3%).
- Significantly reduce the available lodging in all river segments (-43%) and in Yosemite Valley (-46%).
- Reduce day-use parking spaces in Yosemite Valley (-23%).
- Reduce commercial services.
- Make significant changes to traffic-circulation patterns in Yosemite Valley to accommodate ecological restoration goals and reduce traffic congestion.
- Accommodate approximately 13,900 visitors per day in East Yosemite Valley
- Continue to manage overnight use through the wilderness permit system and a reservation system for lodging and camping
- Manage day-use capacity for East Yosemite Valley through a parking permit system required during peak season.

### *Alternative 3: Dispersed Visitor Experience and Extensive Riverbank Restoration*

The guiding principles of Alternative 3 would include restoration of large portions of the floodplain and the riparian area within 150 feet of the river. This alternative would accommodate much lower maximum visitor-use levels than today, and offer fewer commercial services and facilities. Visitor-use levels would be managed to allow for dispersed visitor experiences free of crowding or congestion.

Management actions in Alternative 3 would:

- Restore 302 acres of meadow and riparian habitat.
- Slightly reduce the campsite inventory in all river segments (-3%) and slightly increase campsite inventory in Yosemite Valley (+2%).
- Significantly reduce the lodging inventory in all river segments(-37%) and in Yosemtie Valley (-40%).
- Significantly reduce day-use parking for Yosemite Valley (-32%).
- Reduce commercial services.
- Make significant changes to the traffic circulation pattern in Yosemite Valley to accommodate ecological restoration goals and reduce traffic congestion.
- Accommodate approximately 13,200 visitors per day in East Yosemite Valley.
- Continue to manage overnight use through wilderness quotas, reservation systems for lodging and camping.
- Manage day-use capacity for East Yosemite Valley through permits and a reservation system required during peak season.

### *Alternative 4: Resource-Based Visitor Experiences and Targeted Riverbank Restoration*

The guiding principles of Alternative 4 include restoration of portions of the floodplain and the riparian area within 150 feet of the river. This alternative focuses on providing only those commercial services and facilities that facilitate resource-based visitor experiences. It accommodates lower maximum visitor use levels than today, with large increases in overnight camping capacity, and moderate decrease in the overnight lodging capacity.

Management actions in Alternative 4 would:

- Restore 223 acres of meadow and riparian habitat.
- Significantly increase the campsite inventory in all river segments (+37%) and in Yosemite Valley (+50%).
- Reduce the lodging inventory in all river segments (-20%) and in Yosemite Valley (-20%).
- Reduce day-use parking for Yosemite Valley (-12%).
- Reduce commercial services.
- Make targeted changes to the traffic circulation pattern in Yosemite Valley to accommodate ecological restoration goals and reduce traffic congestion.
- Accommodate approximately 17,000 visitors per day in East Yosemite Valley.
- Continue to manage overnight use capacity through wilderness permits, and reservation systems for lodging and camping.
- Manage day-use capacity for East Yosemite Valley through permits and a reservation system required during peak season.

### *Alternative 5 (Preferred): Enhanced Visitor Experience and Essential Riverbank Restoration*

The guiding principles of Alternative 5 would include significant restoration within 100 feet of the river and in meadow and riparian areas, maintaining daily visitation in Yosemite Valley to accommodate peak levels similar to those observed in recent years, reducing unnecessary facilities and services, and converting facilities from administrative use to public use where feasible.

Management actions in Alternative 5 would:

- Restore 203 acres of meadow and riparian habitat.
- Significantly increase the campsite inventory in all river segments (+28%) and in Yosemite Valley (+37%).
- Minimally increase the lodging inventory in all river segments (less than 1%) and in Yosemite Valley (+2%).
- Increase day-use parking spaces in Yosemite Valley (+5%).
- Reduce commercial services.
- Make significant changes to the traffic circulation pattern to meet ecological restoration goals and reduce traffic congestion through infrastructureimprovements.
- Accommodate approximately 19,900 visitors per day in East Yosemite Valley.
- Continue to manage overnight use capacity through wilderness permits and reservation systems for lodging and camping.
- Manage day-use capacity for East Yosemite Valley through traffic diversions and monitoring.

### *Alternative 6: Diversified Visitor Experiences and Selective Riverbank Restoration*

The guiding principles of Alternative 6 include limited restoration within 100 feet of the river and in meadow and riparian areas, infrastructure improvements to accommodate growth in peak daily visitation in Yosemite Valley, and expansion of facilities and services to allow for diversified visitor experiences.

Management actions in Alternative 6 would:

- Restore 170 acres of meadow and riparian habitat.
- Significantly increase the campsite inventory in all river segments (+46%) and in Yosemite Valley (+59%).
- Increase the lodging inventory in all river segments (+18%) and in Yosemite Valley (+21%).
- Increase day-use parking for Yosemite Valley (+11%).
- Expand facilities and services to accommodate growth in visitation.
- Reduce traffic congestions and improve traffic circulation through major infrastructure improvements.
- Accommodate approximately 21,800 visitors per day in East Yosemite Valley.
- Continue to manage overnight use capacity through wilderness quotas and reservation systems for lodging and camping.
- Manage day-use capacity for East Yosemite Valley through traffic diversions and monitoring.

### *Summary Comparison of Alternatives*

A summary comparison of actions to protect and enhance river values is shown in Table ES-1. A summary comparison of user capacities under all the alternatives is shown in the Table ES-2.

**TABLE ES-1: SUMMARY OF MAJOR ACTIONS FOR PROTECTING AND ENHANCING RIVER VALUES—COMMON TO ALTERNATIVES 2-6**

| | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 | Alternative 6 |
|---|---|---|---|---|---|
| **Free Flow, Water Quality, Geologic/Hydrologic, and Biological Values** | | | | | |
| **Corridorwide** | | | | | |
| **Ecological Restoration Acreage** | Common to Alternatives 2-6: 164 acres total (refer to Appendix E for specific locations) | | | | |
| | 347 total acres | 302 total acres | 223 total acres | 203 total acres | 170 total acres |
| **Riprap to be Removed** | Common to Alternatives 2-6: 5,700 linear feet (refer to Appendix E for specific locations) | | | | |
| | additional 964 feet of riprap | additional 435 feet of riprap | additional 435 feet of riprap | additional 435 feet of riprap | additional 348 feet of riprap |
| **Segment 1: Wilderness above Nevada Fall** | | | | | |
| **Riparian Buffer / Floodplain** | Remove facilities at Merced Lake High Sierra Camp and restore floodplain. | Remove facilities at Merced Lake High Sierra Camp and restore floodplain. | Remove facilities at Merced Lake High Sierra Camp and restore floodplain. | | |
| **Segment 2: Yosemite Valley** | | | | | |
| **Free Flow / Geologic/ Hydrologic Values** | Common to Alternatives 2-6:<br>▪ Place large wood into riverbanks and river channel and construct log jams between Clark's and Sentinel bridges to enhance riparian habitat and channel complexity.<br>▪ Remove riverbank riprap.<br>▪ Remove the Happy Isles bridge footings and relocate the Pohono gauging station. | | | | |
| | Remove Ahwahnee, Sugar Pine, and Stoneman bridges | Remove Ahwahnee, Sugar Pine, and Stoneman bridges | Remove Ahwahnee and Sugar Pine bridges | Remove Sugar Pine Bridge | |

**TABLE ES-1: SUMMARY OF MAJOR ACTIONS FOR PROTECTING AND ENHANCING RIVER VALUES—COMMON TO ALTERNATIVES 2-6**

| | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 | Alternative 6 |
|---|---|---|---|---|---|
| **Free Flow, Water Quality, Geologic/Hydrologic, and Biological Values** | | | | | |
| **Riparian Buffer / Floodplain** | Common to Alternatives 2-6:<br>▪ At a minimum, remove existing campsites and associated infrastructure from within100 feet of the bed and banks of the river.<br>▪ Establish a riparian buffer to prohibit any new development within150 feet of the bed and banks of the river<br>▪ Move Yosemite Village Day-use Parking Area (Camp 6) north at least 150 feet away from the river.<br>▪ Implement a 50-foot riparian setback from Indian Creek.<br>▪ Direct river access to resilient sandy beaches and sandbars; fence off sensitive riparian areas, and restore native riparian vegetation. | | | | |
| | ▪ Ecologically restore 35.6 acres of the 10-year floodplain at former Upper and Lower River campgrounds.<br>▪ Ecologically restore 25 acres of 100-year floodplain at the North Pines Campground, Backpackers Camp, Yellow Pine Administrative Campground, and portions of Lower Pines Campground.<br>▪ Ecologically restore large portions of Yosemite Lodge and Housekeeping Camp.<br>▪ Move Yosemite Village Day-use Parking Area (Camp 6) north outside the 10-year floodplain. | ▪ Ecologically restore 35.6 acres of the 10-year floodplain at former Upper and Lower River campgrounds.<br>▪ Ecologically restore riparian habitat within 150 feet of the river at Backpackers Camp, North Pines and Lower Pines, campgrounds.<br>▪ Ecologically restore a large portion of Housekeeping Camp and four buildings of Yosemite Lodge within the 100-year floodplain.<br>▪ Move Yosemite Village Day-use Parking Area north outside the 10-year floodplain. | ▪ Ecologically restore 19.7 acres of riparian habitat in former Upper and Lower River campgrounds; construct campsites 150 feet away from the river<br>▪ Ecologically restore riparian habitat within 150 feet of the river at Backpackers Camp, North Pines, and Lower Pines campgrounds.<br>▪ Ecologically restore portions of Housekeeping Camp in the observed high-water mark.<br>▪ Move Yosemite Village Day-use Parking Area parking north at least 150 feet away from the river. | ▪ Ecologically restore 35.6 acres of the 10-year floodplain at former Upper and Lower River Campgrounds; construct new campsites in Upper River outside the 25-year floodplain.<br>▪ Ecologically restore riparian habitat within 100 feet of the river at Backpackers Camp, North Pines, and Lower Pines Campground.<br>▪ Ecologically restore part of Housekeeping Camp within the ordinary high-water mark (bed and banks) of the river.<br>▪ Move Yosemite Village Day-use Parking Area parking north at least 150 feet away from the river. | ▪ Ecologically restore 19.7 acres of riparian habitat in former Upper and Lower River Campgrounds and construct new campsites 150 feet away from the river.<br>▪ Ecologically restore riparian habitat within 100 feet of the river at Backpackers Camp, North Pines, and Lower Pines Campground.<br>▪ Ecologically restore part of Housekeeping Camp within the ordinary high-water mark (bed and banks) of the river.<br>▪ Move Yosemite Village Day-use Parking Area parking north at least 150 feet away from the river. |

**TABLE ES-1: SUMMARY OF MAJOR ACTIONS FOR PROTECTING AND ENHANCING RIVER VALUES—COMMON TO ALTERNATIVES 2-6**

| | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 | Alternative 6 |
|---|---|---|---|---|---|
| **Free Flow, Water Quality, Geologic/Hydrologic, and Biological Values** | | | | | |
| **Meadow and Upland Restoration** | Common to Alternatives 2-6:<br>▪ Remove abandoned infrastructure, including tiles, pipes, and abandoned roads, and ecologically restore sites.<br>▪ Improve meadow hydrology by removing artificial fill, filling ditches, constructing culverts, and removing remnants of abandoned underground utilities to enhance water flows into meadows (actions in particular meadows would sometimes vary among alternatives).<br>▪ Remove six miles of informal trails to reduce meadow fragmentation; restore disturbed areas to natural conditions; eliminate some roadside parking adjacent to meadows and fence some areas to reduce the potential for informal trailing through sensitive meadow habitat.<br>▪ Eliminate some roadside parking and fence some areas to reduce the potential for informal trailing through sensitive meadow habitat.<br>▪ Improve the condition of plant communities at specific locations in Yosemite Valley (67 potential acres targeted) by restoring the mosaic of meadow, riparian deciduous, black oak, and open mixed conifer forest vegetation. Management actions could include re-vegetation, prescribed fire, mechanical removal of conifers, and infrastructure redesign. | | | | |
| | ▪ Remove 900 feet of Northside Drive through Ahwahnee Meadow to enhance connectivity of the meadow and floodplain.<br>▪ Remove 1,335 feet of Southside Drive through Stoneman Meadow to enhance connectivity of the meadow and floodplain. | ▪ Remove 900 feet of Northside Drive through Ahwahnee Meadow to enhance connectivity of the meadow and floodplain<br>▪ Remove 1,335 feet of Southside Drive through Stoneman Meadow to enhance connectivity of the meadow and floodplain | ▪ Remove 1,335 feet of Southside Drive through Stoneman Meadow to enhance connectivity of the meadow and floodplain | | |
| **Segment 4: El Portal** | | | | | |
| **Riparian Buffer / Floodplain** | Common to Alternatives 2-6:<br>▪ Ecologically restore Greenemeyer sand pit.<br>▪ Enhance valley oaks in Old El Portal by creating an oak recruitment area of at least one acre in the vicinity of the current Odger's Fuel Storage Facility. | | | | |

**TABLE ES-1: SUMMARY OF MAJOR ACTIONS FOR PROTECTING AND ENHANCING RIVER VALUES—COMMON TO ALTERNATIVES 2-6**

| | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 | Alternative 6 |
|---|---|---|---|---|---|
| **Free Flow, Water Quality, Geologic/Hydrologic, and Biological Values** | | | | | |
| **Segment 7: Wawona** | | | | | |
| **Riparian Buffer / Floodplain** | Common to Alternatives 2-6:<br>▪ Ecologically restore portions of the Wawona Campground. Relocate or remove all campsites currently within 100 feet of the bed and banks of the river. | | | | |
| | ▪ Ecologically restore the 42-acre Wawona Golf Course to meadow habitat. | ▪ Ecologically restore 42-acre Wawona Golf Course to meadow habitat. | | | |
| **Scenic Values** | | | | | |
| **Segment 2: Yosemite Valley** | | | | | |
| **Iconic Scenic Views** | Common to Alternatives 2-6:<br>▪ Reduce visual intrusions as part of the ecological restoration program.<br>▪ Ensure that new development is protective of scenic values.<br>▪ Implement management treatments, including removal of vegetation, to protect views from 47 vista points within the river corridor. | | | | |
| **Cultural Values** | | | | | |
| **Corridorwide** | | | | | |
| **Archeological and Ethnographic Resources** | Common to Alternatives 2-6:<br>▪ Remove informal trails, non-essential roads, and infrastructure that impacts archeological sites.<br>▪ Delineate bike paths, roads, bridle paths, parking, staging, and trails away from sensitive cultural and ethnographic resource areas.<br>▪ Remove graffiti, and install fencing around rock art and other sensitive features to discourage inappropriate visitor use<br>▪ Develop site management plans for archeological sites with complex uses and impacts such as Yosemite Village. | | | | |

**TABLE ES-1: SUMMARY OF MAJOR ACTIONS FOR PROTECTING AND ENHANCING RIVER VALUES—COMMON TO ALTERNATIVES 2-6**

| | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 | Alternative 6 |
|---|---|---|---|---|---|
| **Recreational Values** | | | | | |
| **Segment 1: Wilderness above Nevada Fall** | | | | | |
| **Wilderness Recreation** | ▪ Enhance wilderness character by removing the Merced Lake High Sierra Camp and converting this area to designated Wilderness.<br>▪ Reduce zone capacities and convert overnight use to dispersed camping. | ▪ Covert Merced Lake High Sierra Camp to temporary stock camp with reduced overnight capacity and convert area to designated Wilderness.<br>▪ Reduce zone capacities and convert overnight use to dispersed camping. | ▪ Enhance wilderness character by removing the Merced Lake High Sierra Camp and converting this area to designated Wilderness<br>▪ Reduce zone capacities and size of Little Yosemite Valley Camping Area.<br>▪ Expand footprint of Merced Lake Backpackers Camping Area | ▪ Reduce zone capacities and trailhead quotas.<br>▪ Visitor overnight use concentrated to designated camping areas | ▪ Visitor overnight use concentrated to designated camping areas |
| **Segment 2: Yosemite Valley** | | | | | |
| **River-related Recreation** | Common to Alternatives 2-6:<br>▪ Improve traffic circulation and access while reducing congestion at key attraction sites.<br>▪ Manage boating to improve dispersed recreation along the river in Yosemite Valley. | | | | |

**TABLE ES-2: YOSEMITE VALLEY VISITATION AND USER CAPACITIES**

| Segment 2 Yosemite Valley | Unit Type | Alternative 1 (No Action) | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 | Alternative 6 |
|---|---|---|---|---|---|---|---|
| Visitation (per day) | People | 20,900 people | 13,900 people | 13,200 people | 17,000 people | 19,900 people | 21,800 people |
| Visitor Overnight-Use Capacity * | Lodging and Campsites | 6,564 people | 4,758 people | 5,027 people | 7,224 people | 7,729 people | 9,006 people |
| Visitor Day-Use Capacity** | Vehicles and buses | 8,272 people | 6,819 people | 6,289 people | 7,554 people | 8,954 people | 9,449 people |

* Visitation is defined as the expected use level over a 24-hour period that can be accommodated in Segment 2 (East Yosemite Valley).
**User capacity for this segment is defined as the maximum number of people at one time (PAOT) accommodated in Segment 2 (East Yosemite Valley) without adverse effect to river values.

## ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The Council on Environmental Quality (CEQ) regulations implementing NEPA and the National Park Service NEPA guidelines require "the alternative or alternatives which were considered to be environmentally preferable" be identified (CEQ Regulations, section 1505.2). Environmentally preferable is defined as "the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources" (CEQ 1981).

Upon full consideration of the elements of NEPA Section 101, Alternative 5 was determined to represent the environmentally preferable alternative for the *Merced River Plan/DEIS*. This conclusion is analyzed in Chapter 8.

## ORGANIZATION: MERCED WILD AND SCENIC RIVER COMPREHENSIVE MANAGEMENT PLAN AND DRAFT ENVIRONMENTAL IMPACT STATEMENT

The information in this document is organized as follows:

### Volume 1

**Chapter 1: The Merced Wild and Scenic River** describes the purpose of the nation's Wild and Scenic Rivers System and what the designation of the Merced River as part of that system means in terms of river planning and management.

**Chapter 2: The Purpose and Need for the Merced River Plan** describes the purpose and organization of the plan, the major planning issues identified during internal and public scoping, and the interrelationships with other plans and projects.

**Chapter 3: Wild and Scenic River Corridor Boundaries and Segment Classifications** explains the legal requirements for establishing a river corridor boundary and classifying its segments. It also describes the boundary and segment classifications for the Merced River in Yosemite National Park.

**Chapter 4: Determination Process for Water Resource Projects** explains the legal requirements for protecting the river's free-flowing condition and describes the process that will be used to fulfill that requirement.

**Chapter 5: River Values and Their Management** is the heart of the *Merced River Plan/DEIS*. The chapter presents detailed discussions of the conditions, management concerns, actions for addressing management concerns, and continuing monitoring and protective actions for each river value. The actions to ensure protection of river values presented in this chapter will be common to all alternatives.

**Chapter 6: Visitor Use and User Capacity** describes the process used to address WSRA's user capacity requirement. The major differences among the plan alternatives (presented in Chapter 8) have to do with the kinds and amounts of use the river corridor could receive in the future.

**Chapter 7: Facilities and Services Analysis** details structures and facilities within each segment of the Merced River corridor in terms of their effect on river values. This chapter also examines the feasibility of relocating, removing or re-designing facilities that cause management considerations with regard to river

values. Information presented in Chapter 7 informed the development of the alternatives presented in Chapter 8.

**Chapter 8: Alternatives** presents the six alternatives (no action alternative plus five action alternatives) currently under consideration in the *Merced River Plan/DEIS*. The differences among the alternatives revolve primarily around possible differences in visitor use and user capacity. Most of the actions needed to protect and enhance river values are common to all the action alternatives although some variations exist.

## Volume 2

**Chapter 9: Affected Environment and Environmental Consequences** identifies and describes the natural and sociocultural resources and values that could be affected by the alternatives presented in Chapter 8 and evaluates and compares the potential effects of the alternatives. Chapter 9 looks comprehensively at the components of the human environment that might be affected by the plan and assesses how they might be affected by actions intended to protect and enhance river values.

**Chapter 10: Consultation and Coordination** summarizes all consultation and coordination efforts undertaken to date for the *Merced River Plan/DEIS*. It outlines the project scoping history and the much broader public involvement history that extended through every step of the development of the plan alternatives. It describes specific consultations with the traditionally associated American Indian tribes and the federal, state, and local agencies having jurisdiction or particular interests in the Merced River corridor. Chapter 10 also includes a list of the agencies, organizations, and businesses that received the *Merced River Plan/DEIS*.

**Chapter 11**: List of Preparers

**Chapter 12:** Glossary and Acronyms

**Chapter 13:** References

**Appendices**

Appendix A: Actions that Amend the 'General Management Plan'
Appendix B: Cumulative Actions
Appendix C: Mitigation Measures
Appendix D: Draft Floodplain Statement of Findings
Appendix E: Proposed Restoration Actions
Appendix F: Acoustical Measurement Locations
Appendix G: On-road Vehicle Criteria Pollutant and GHG Emission Estimates
Appendix H: Scenic Vista Management
Appendix I: Yosemite Valley Historic District Resources
Appendix J: NHPA Assessment of Effect for Site-specific Actions
Appendix K: Management Considerations and Actions
Appendix L: Determination of Extent Necessary
Appendix M: Changes to the ORVs Over Time
Appendix N: Draft Biological Assessment
Appendix O: Draft Wetland Statement of Findings

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