National Park Service, Yosemite National Park

Merced River Plan

Revised Draft Outstandingly Remarkable Values, May 31, 2011



PURPOSE OF THIS DOCUMENT

This document presents the Outstandingly Remarkable Values for the Merced Wild and Scenic River in Yosemite National Park. Beginning with an explanation of the criteria used to identify a Wild and Scenic River's Outstandingly Remarkable Values (ORVs), this document then details the National Park Service efforts to apply those criteria to the Merced and South Fork Merced rivers in Yosemite, and finally concludes with the ORVs themselves.

INTRODUCTION

In 1968, Congress passed The Wild and Scenic Rivers Act, to preserve some of America's rivers in a free-flowing condition. According to the act,

It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreation, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.

Congress designated the Merced River and South Fork Merced River in California as Wild and Scenic (hereafter referred to collectively as the Merced Wild and Scenic River or Merced River) in 1987. Most of the these wild and scenic rivers are in Yosemite National Park (81 miles), with the remainder running through National Forest System Land and Bureau of Land Management lands west of the park.

The Wild and Scenic Rivers Act stipulates that federal land managers must protect and enhance the values that merit a river's designation as wild and scenic. These river values fall under three categories: the river's free-flowing condition, its water quality, and its other outstandingly remarkable values, which are the unique characteristics that make a river worthy of special protection.¹

To protect and enhance these values, the act directs managers to prepare a comprehensive management plan for each wild and scenic river. The plan must address resource protection, development of lands and facilities, user capacity, and other management practices necessary or desirable to achieve the Act's purposes. A foundational element of a comprehensive management plan is identification of the river's outstandingly remarkable values.

This document articulates the ORVs for the Merced River in Yosemite National Park. These are the truly exceptional qualities that merit the rivers' designation as a Wild and Scenic River. The Merced River Comprehensive Management Plan will use these values as a foundation for planning and management. Pursuant to the Wild and Scenic Rivers Act, the plan will provide

¹ Jackie Diedrich, "Wild and Scenic River Management Responsibilities," 2002 Interagency Technical Report, p. 2, available at http://www.rivers.gov/publications/management.pdf.

"primary emphasis ... to protecting [the river's] esthetic, scenic, historic, archaeologic, and scientific features." ² It will establish the management objectives for protecting and enhancing these values, the actions needed to achieve those objectives, and the standards to be enforced to ensure that the objectives are maintained over time. Finally, it will also establish management objectives for preserving the river's free-flowing condition and water quality.

CRITERIA FOR IDENTIFYING OUTSTANDINGLY REMARKABLE VALUES

ORVs are typically written as an administrative task incorporating the professional judgment of the agency that manages the river, using the best science available, and following the guidance provided by the Interagency Wild and Scenic Rivers Coordinating Council.³ According to this council, to be outstandingly remarkable, a value must meet both of two criteria:

- It must be river related or dependent. This means that a value must:
 - "Be located in the river or on its immediate shorelands (generally within ¼ mile on either side of the river);
 - o Contribute substantially to the functioning of the river ecosystem; and/or
 - o Owe [its] location or existence to the presence of the river."⁴
- It must be rare, unique, or exemplary at a comparative regional or national scale. As expressed by the Council in 1999, this means that "such a value would be one that is a conspicuous example from among a number of similar values that are themselves uncommon or extraordinary." ⁵

In addition to applying these two criteria in articulating the ORVS for the Merced River in Yosemite National Park, the Interagency Council also suggests that agencies *clearly define* ORVs. In so doing, agencies are able to identify ORV baseline conditions, an exercise that in turn helps guide future ORV management. This document represents the NPS's efforts to clearly define the components of each Merced River ORV; it also responds to public comment requesting that the NPS be as specific as possible.

Another factor relevant to the ORV refinement process is the Settlement Agreement that the NPS entered into in September, 2009 to resolve litigation over earlier versions of the Merced River Plan. With regard to ORVs, the Settlement Agreement provides that:

• "[The] NPS shall define ORVs in accordance with all legal requirements and guidance, including but not limited to the language contained in the 1982 Secretarial Guidelines and the reports of the Interagency Wild and Scenic River Coordinating Council;"

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 $^{^2}$ The Wild and Scenic Rivers Act (16 U.S.C. 1271-1287)--Public Law 90-542, and amendments thereto.

³ Jackie Diedrich and Cassie Thomas, "The Wild & Scenic River Study Process," December 1999, available at http://www.rivers.gov/publications.html. The Wild and Scenic Rivers Coordinating Council is composed of members of each federal land management agency with wild and scenic rivers under its jurisdiction: the U.S. Forest Service, National Park Service, Bureau of Land Management, and U.S. Fish and Wildlife Service.

⁴ Ibid.

⁵ *Ibid.* Note that NPS, for this planning effort, defined "regional" to be the Sierra Nevada within California.

- The NPS will involve several user capacity experts in defining the Merced River's outstandingly remarkable values; and
- The "NPS will provide one or more public workshops to consult with individual experts
 and representatives from academic institutions, tribal governments and local, state and
 federal government agencies on protecting and enhancing ORVs. Through these public
 workshops, NPS will gather information and advice relevant to ORVs from these experts
 and other individuals identified by Plaintiffs, within their individual areas of expertise."

MERCED RIVER ORV IDENTIFICATION PROCESS, HISTORY, AND REVISION

The NPS began the process of reevaluating the Merced's ORVs in winter, 2010.⁷ Park staff began by reviewing the ORVs that were developed for the Merced in its original eligibility study (1986), the draft Yosemite Valley Housing Plan (1996), previous river plans (2000 and 2005), and the draft ORVs prepared in 2008. Throughout the process of identifying and articulating the Merced River's ORVs, NPS utilized the 1982 Secretarial Guidelines, Interagency Coordinating Council reports, the advice of several user capacity experts, and baseline data and monitoring information related to conditions of resources within the river corridor. Additionally, the agency conducted a series of workshops in summer 2010 to consult with members of the public, academia, tribes, and other governmental agencies regarding the Merced's ORVs (discussed in more detail after the table). These efforts are listed in Table 1 below.

Table 1: The Consultation Process Used the Yosemite National Park Staff in Developing the Outstandingly Remarkable Values for the Merced Wild and Scenic River.

Date	Participants	Outcome
January 2010	Merced River Plan core team and USFS Wild and Scenic Rivers Act expert	Produced first new set of draft Merced ORVs
February 2010	Yosemite National Park natural and cultural resource experts	Reviewed and refined draft Merced ORVs
February 2010	Interagency Wild and Scenic Rivers Coordinating Council and two Yosemite employees	Reviewed Merced ORV criteria and draft Merced ORVs
February 2010	Merced River Plan core team, environmental compliance contractors, and user capacity experts	Reviewed and refined draft Merced ORVs and reviewed public input from MRP scoping regarding ORVs

⁶ Friends of Yosemite Valley, et al., v. Ken L. Salazar, et al., Settlement Agreement, Sept. 29, 2009, available at http://www.nps.gov/yose/parkmgmt/upload/mrpsettlementagreement.pdf, accessed January 27, 2011.

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⁷ Congress establishes the ORVs for a river upon its designation. In the case of the Merced, the NPS first considered its ORVs in 1982 as part of the Nationwide River Inventory. In 1986, the U.S. Forest Service determined the river's eligibility and suitability for designation by establishing ORVs as part of the *Sierra National Forest Draft Land and Resource Management Plan*.

March 2010	Yosemite National Park natural and cultural resource experts	Reviewed and refined draft Merced ORVs
June/July 2010 (six workshops)	Members of the public and interested academic experts	Reviewed and requested input on draft Merced ORVs, their specific locations, and their condition
July 2010	Yosemite all tribes annual meeting	Reviewed and requested input on draft Merced ORVs, their specific locations, and their condition
Fall 2010	Revision by Merced River Plan core team, Yosemite National Park natural and cultural resource experts, and user capacity experts	Reviewed NPS use of Wild and Scenic Rivers Council ORV methodology, refined draft Merced ORVs, and provided specific locations of ORVs

At the public workshops in summer 2010, the NPS asked three essential questions:

- 1) Do you have any specific knowledge of locations with river-related or river-dependent features or resources that are not addressed by the NPS ORV report?
- 2) Do you have any knowledge or observations regarding the conditions of river features and values that should be addressed?
- 3) How should the NPS protect and enhance river resources and values?

In addition to the input received at the six public meetings, the NPS also accepted written input. Over thirty people or organizations submitted letters about the ORVs. NPS staff members reviewed the letters and revised the ORVs accordingly or provided clear rationale for why comments were not incorporated. A separate document listing all substantive comments and the agency's response is available at http://www.nps.gov/yose/parkmgmt/mrp_documents.htm (the document entitled "ORV Public Comment and Response Matrix").

Major changes between the first draft of the ORVs, presented in summer 2010, and those contained in this document include the following:

- The large boulder bar adjacent to the park boundary at El Portal was added to the Geologic/Hydrologic ORV.
- The valley oak grove at El Portal was added to the Biological ORV for that river segment.
- The "Meadow and Riparian Complex" ORV was renamed the "Biological ORV," to be more descriptive and inclusive of the components of that ORV.
- The experiential qualities of the activities named within the Recreation ORV were detailed and emphasized (in some cases using exact language provided by one commentor).
- Archeological sites both in and above Wawona were added to the Cultural ORV (this addition was made pursuant to further subject matter expert review in early 2011).

Also available at the website noted above is a document explaining how the Merced and South Fork Merced ORVs have evolved over time ("Comparison of Merced River ORVs over Time"). Major milestones or changes in the ORVs over time include:

Air quality is no longer an ORV because it is not river-related or river-dependent.

- Science is inherent to all ORVs and as a river value, it is overly-broad and vague.
- Two ORVs, Geology and Hydrology, were merged in 2010. In the professional judgment of subject matter experts, these ORVs are interdependent.
- ORVs for the Merced River have remained consistent with the potential values identified for any wild and scenic river by the Wild and Scenic Rivers Act: hydrology, geology, biology, recreation, scenery, and culture.

In sum, the Merced River ORVs identify what is truly unique, rare or exemplary, and river-related or river-dependent. The ORVs strictly follow the guidance of the Interagency Wild and Scenic River Coordinating Council, incorporate the expertise of several user capacity scholars, reflect public comment, and utilize the best available scientific information.

Below is an overview of the Outstandingly Remarkable Values of the Merced Wild and Scenic River (Table 2), followed by more detailed descriptions of the 24 ORVs, arranged by river segment.* These are the truly exceptional qualities that merit the river's inclusion in America's wild and scenic rivers system. More importantly, they are the attributes that make the Merced Wild and Scenic River one of the country's most treasured rivers.

Table 2. Overview of the Outstandingly Remarkable Values (ORV) of the Merced Wild and Scenic River.

Categories of ORV	Short description
Biological	The Merced River and South Fork Merced River support a suite of riparian and meadow ecosystems within Yosemite National Park, from alpine and subalpine meadows along the river stretches above Yosemite Valley and Wawona, to the Yosemite Valley meadows, to low elevation riparian and wetland habitat. Dependent on these habitats are a variety of native, endemic, and/or rare plant and animal species. Sustained by periodic flooding and/or high water tables, these habitats are river related crossroads of life in a landscape already vibrant with productive habitats.
Recreational	Yosemite is a nationally and internationally renowned destination. One of America's first national parks and a World Heritage Site, the valley was originally set aside for "public use, resort, and recreation." Today, the Merced and South Fork Merced Rivers provide for exceptional outdoor river-related recreational experiences. The dramatic and picturesque setting (also described in the scenic ORV) is central to these experiences. Settings range from the undeveloped wilderness of the Upper Merced and South Fork Merced River, to Yosemite Valley's views of high granite cliffs and

⁸ "An Act Authorizing a Grant to the State of California of the 'Yo-Semite Valley,' and of the Land Embracing the 'Mariposa Big Tree Grove,'" 13 Stat. 325.

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^{*} See the discussion of river segments at the end of this document for more information on the segments of the Merced, the reasoning for such designations, and the boundaries of the Merced wild and scenic corridor.

	towering waterfalls, to Wawona, the Merced Gorge, and El Portal, where the roar and vibration of the river becomes especially apparent during spring runoff. Many first time visitors are awed and inspired by the rivers' natural wonders, forming for some a first connection to wild nature. Others are called back year after year, building long-lasting relationships and attachments to the rivers and their environs. For all visitors, the Merced and the South Fork Merced rivers are places to experience a wild and scenic river in one of America's first and most revered national parks.
Geologic/	The Merced River contains geologic and hydrologic processes that continue to shape the landscape. Glacial pathways, which the river partly determined and
Hydrologic	continues to follow, resulted in the rivers' variable gradients, featuring dramatic changes in river speed and volume. The rivers flow through classic glacially carved canyons, over sheer cliffs and steep cascades exemplifying stair step river morphology, through an alluvial landscape in Yosemite Valley, past a well-preserved recessional moraine, and past an exemplary boulder bar in El Portal.
Scenic	Throughout its length, the Merced River flows through a scenic landscape that has few parallels. Whether these are views from the river or its banks, whether the views include El Capitan, Half Dome, Yosemite Falls, Vernal Fall, or Nevada Fall, or any of the other landmarks along the river, the Merced River provides a natural complement to Yosemite's world-renowned scenery. Depending on the stretch of river, the Merced provides a foreground of a flat valley, a rushing and boulder-strewn river, tall waterfalls, or serene lakes.
Cultural	The continuum of human use along the Merced River and South Fork Merced River encompasses thousands of years of diverse people, cultures, and uses. American Indian and late-Nineteenth Century American cultures flourished along these rivers because they provided reliable, year-round water in extraordinary settings. Evidence that reflects trade, travel, and settlement patterns abounds in an intricate and interconnected landscape of archeological sites representing the prehistoric past, contemporary American Indian ancestral and other ethnic heritage, historic and cultural landscapes, and ongoing cultural traditions. This landscape, linked through time and space, holds outstandingly remarkable scientific, interpretive and cultural value for traditionally associated peoples and the public.

Following are the 24 ORVs identified for the Merced Wild and Scenic River, organized by category of ORV and then river segment.

BIOLOGICAL

Merced River above Nevada Fall and South Fork Merced River above Wawona

1) Numerous, exquisite small meadows and relatively intact adjacent riparian habitats support a great diversity of species.

Numerous small meadows and adjacent riparian habitats⁹ occur on these stretches of river. Owing their existence to the river and its annual flooding, the meadows and rich riparian habitat within this intact riverine system support a great diversity of plant and animal species, from common species like mule deer (*Odocoileus hemionus*) to rare, ripariandependent species such as the spotted bat (*Euderma maculatum*).¹⁰

Yosemite Valley

2) The large, moist meadows and associated riparian communities comprise one of the largest mid-elevation meadow complexes in the Sierra Nevada, supporting an exceptional diversity of plant and animal species.

The large, moist, mid-elevation meadows and the riparian vegetation communities of Yosemite Valley owe their existence to the river processes, the high water table the river sustains, and its annual flooding. These mid-elevation meadows, most greater than 30 acres in size, and the riparian habitats along the river, with associated wildlife species, are rare and unusual at a regional and national scale. Yosemite Valley meadows and riparian habitats support rare and endemic species as well as an exceptional diversity of both bat and sedge species. This biological diversity is a function of the variety of niches made possible by the meadows and presence of year-round water.

Wawona and South Fork Merced River below Wawona

3) The Sierra sweet bay (*Myrica hartwegii*), a rare plant found exclusively on river banks in the central Sierra, occurs along the South Fork Merced River in these segments.

In Wawona and downstream, the South Fork Merced River provides habitat for a rare plant, the Sierra sweet bay (*Myrica hartwegii*). This special status shrub is found in only five Sierra Nevada counties. In Yosemite, it occurs exclusively on sand bars and river banks along the South Fork Merced River downstream from Wawona and on Big Creek.

⁹ Riparian areas are plant communities contiguous to and affected by surface and subsurface hydrologic features, with distinctly different vegetative species or more vigorous growth forms than those in adjacent areas, and are usually transitional between wetland and upland communities.

¹⁰ While many of these species depend primarily on the river and its fish, the adjacent and related riparian habitats provide crucial nesting or denning habitats without which the species would not be present.

¹¹ The majority of large Sierra Nevada meadows occur between 6,500 and 8,500 feet; 62% of all Sierra meadows are smaller than 10 acres.

¹² It is the diversity of bat species that is exceptional, for most of the species are otherwise common.

El Portal

4) Valley oaks (*Quercus lobata*), a regionally rare species, thrive in this area due to its high water table.

Valley oaks (*Quercus lobata*), a keystone tree species of lowland floodplain habitats, have been eliminated from most of their range by human clearing for agriculture and other land uses. One of the largest species of oak in America, there is a disjunct but reproducing population at El Portal. With their graceful arching branches, this remnant population provides high value habitat for wildlife. Dependent on the high water table made possible by the Merced River, they are a rare glimpse into former California river and floodplain habitats.

RECREATIONAL

Merced River above Nevada Fall, and South Fork Merced River Above and Below Wawona

5) The Merced River, spectacular High Sierra landscape, dramatic scenery, natural sounds, and abundant opportunities for solitude combine to produce a variety of exceptional wilderness-oriented recreational activities.

Wild segments of the Merced River and South Fork Merced River flow from the heart of the Sierra Nevada, with its towering granite peaks and impressive forests. The spectacular, rugged expanses along these segments provide exemplary landscapes for wilderness experiences characterized by solitude, personal reflection, closeness to nature, independence, and self-reliance. Activities are oriented toward primitive travel, camping, exploration, and adventure.

Of the many exemplary recreational activities, a few are particularly distinctive. Hiking or backpacking close to the river gives visitors the experience of spectacular cascades that vary by season. In spring, visitors experience the sight, sound, and feeling of the powerfully crashing waters. In drier months, the beauty of delicate water plumes becomes the center of attention. Backpacking on a major segment of the John Muir Trail offers access to a multiday Sierra Nevada wilderness trip that is internationally renowned for gorgeous riverside views, undeveloped settings, opportunities for solitude along the trail, and backcountry camping near the river. Off-trail hiking and the potential for class V kayaking along the South Fork Merced River below Wawona are other exemplary river-related recreational opportunities.

Yosemite Valley

6) The valley's incredible setting, with striking cliffs and waterfalls towering above a meandering river and extensive moist meadows, provides the setting for a variety of active, creative, educational and interpretive, social, and reflective experiences.

Every year millions of visitors from around the world come to Yosemite Valley to recreate in and along the Merced River. Well known and iconic features such as El Capitan, Yosemite Falls, and Half Dome provide a dramatic backdrop shaping the experience of first-time and return visitors alike. Visitors realize these experiences through a wide variety of activities occurring in and along the river. They include active pursuits such as hiking, biking,

swimming, floating and water play, climbing, camping, or fishing; creative pursuits such as writing, painting, photography and other arts; and educational and interpretive pursuits. Social elements such as group camping and picnicking are integral to many activities, while others offer opportunities for solitude and reflection.

Overall, the Yosemite Valley segment offers a variety of outstandingly remarkable opportunities for frontcountry river recreation for people of all ages and abilities. The Merced in this segment allows people to immerse themselves in their surroundings, taking in the sights, sounds, and feel of the river and its dramatic backdrop. These experiences in turn relieve stress and promote connection to the natural world. Exemplary experiences are protected and enhanced when proximity to the river allows close contact with its resources; visitors can choose time frames and seasons that suit activities, ranging from short day trips to multi-day opportunities. Appropriate infrastructure and services facilitate river-related activities but do not dominate the landscape or interfere with the natural setting that visitors have come to enjoy. Visitor use levels are appropriate so as not to contribute to crowding or congestion.

The Merced Gorge

7) The rushing and cascading river, interspersed with secluded holes, provides the setting for relaxing river-related activities.

As it plunges some 2,000 vertical feet through the Merced Gorge, the Merced River provides a dramatic backdrop for a variety of visitor activities. This segment is undeveloped except for the adjacent road. The road's proximity to the river provides for scenic driving and access to several pools, many of which are tucked away among gigantic granite boulders. These pools, beaches, and other areas are popular for activities such as swimming, fishing, and picnicking. Overall, this segment provides a largely natural setting and excellent opportunities for solitude.

El Portal and Wawona

8) The largely natural settings of the rivers in these areas provide for memorable active, contemplative, and creative pursuits.

The Merced River through El Portal and the South Fork Merced River through Wawona provide a primarily natural setting for visitors to easily connect with the river through a variety of active, creative, and contemplative river-related recreational pursuits. Local residents and visitors repeatedly visit road-accessible pools and beaches on these river stretches, contributing to strong place attachment. Swimming and relaxing along the river are common, providing respite from the summer heat. Similarly, fishing is popular along these segments, with various holes treasured for their combination of scenery, fishing success, and solitude. Finally, camping along the South Fork Merced River in Wawona allows visitors to be close to the river overnight. Though close to developed communities, the settings along these segments are mainly natural and for much of the year, interactions with others are infrequent.

GEOLOGIC/HYDROLOGIC

Merced River above Nevada Fall

9) Following the path of the ancient Merced River, glaciers gouged a textbook U-shaped canyon with sheer granite walls rising steeply above.

This segment of the Merced River is characterized by a large-scale, U-shaped glacially-carved canyon. The section of the Merced River above Bunnell Point especially illustrates the relationship between geology and river course due to its sweeping, glacially-sculpted granite canyon cradling the river.

Yosemite Valley

This river segment, famous for its glacially-carved landforms, is unique in the scale, variety, and sheer grandeur of its celebrated rock and water features:

10) The "Giant Staircase," which includes Vernal and Nevada falls, is one of the finest examples of stair-step river morphology in the country.

Dropping over 594-foot Nevada Fall and then 317-foot Vernal Fall, the Merced River creates what is known as the Giant Staircase. Such exemplary stair-step river morphology is characterized by substantial variability in river hydrology, from quiet pools such as Emerald Pool to the dramatic drops in the waterfalls.

11) The El Capitan Moraine is a textbook example of a recessional moraine.

Yosemite Valley owes much of its form to periodic glaciations, with the rivers of ice following the track of the prehistoric Merced River. When the glaciers retreated, they occasionally paused, dropping their loads of sediment and forming recessional moraines. The best-preserved of these is the El Capitan Moraine; it is an exemplar of such moraines.

12) From Happy Isles to the west end of the valley, the Merced River is a rare example of a mid-elevation alluvial river.

In Yosemite Valley, the Merced River is alluvial, characterized by a gentle gradient, a robust flood regime with associated large woody debris accumulation, and complex riparian vegetation. There are few examples in the Sierra Nevada of similar river morphology of this scale at this elevation (about 4,000 feet).

El Portal

13) Changing river gradients, glacial history, and powerful floods have created a boulder bar with huge boulders much larger than typically found in such deposits.

When river gradients drop, rivers lose the energy needed to transport larger sediments and boulders. In such areas, bar-type deposits, such as the large boulder bar at the east end of El Portal, are built up. This is no ordinary boulder bar, however, for it contains massive boulders over a meter in diameter and weighing many tons. It is the combination of boulder availability, the steepness of the river in the gorge, the major change in gradient at El Portal, and the size of the Merced's peak floods that enables the river to build such a boulder bar. As illustrated by the January 1997 flood, the Merced continues to sort and build this bar, providing evidence in all seasons of its potential power.

SCENIC

Merced River above Nevada Fall

14) Passing through serene montane lakes and slickrock cascades and by classic Sierran peaks, the Merced forms the foreground to scenes of great visual delight and variety.

Starting at the headwaters, the Merced River passes through chains of "paternoster" lakes, ¹³ enters the upper Montane forest, and becomes walled in by a classic U-shaped glacial valley. Scenic landmarks visible from the river and its banks include Washburn and Merced lakes, Echo Valley, Bunnell Point, and Little Yosemite Valley. The long river segment of great visual variety and its uncompromised natural setting provide diverse, exceptional scenery, all with the river in the foreground.

Yosemite Valley

15) Crashing over Nevada and Vernal falls and then meandering quietly under 2,000 foot cliffs, the Merced forms a placid foreground to some of the world's most iconic scenery.

The river enters Yosemite Valley at Nevada Fall, flowing through Emerald Pool and then over Vernal Fall. Once in the flat valley, the Merced provides the foreground to many of Yosemite's most famous landmarks. From the river and its banks, views consist of Yosemite Falls, Bridalveil Fall, El Capitan, Half Dome, and other named and unnamed parts of the cliffs and hanging valleys rimming the valley. Meandering through a sequence of compound oxbows, wetlands, and meadows, the river and its related features provide broadened panoramas. Throughout the valley, views from the river and its banks encompass the lower Montane forest as it rises up to sheer rock faces of granite cliffs and talus slopes, with a flat valley bottom serving as a contrasting foreground. The juxtaposition of granite domes and waterfalls is unique, as is the concentration of river-related views found in Yosemite Valley.

The Merced Gorge

16) Descending 2,000 feet in 14 miles, the river is a continuous cascade under spectacular Sierra granite outcrops and domes.

Descending from Yosemite Valley, the river becomes a continuous cascade in a narrow gorge littered by massive boulders. Arch and Elephant rocks and other landmarks rise above, all visible from the river and its banks. Dropping 2,000 feet in 14 miles, canyon walls rise steeply from the river and have many seasonal waterfalls cascading down to the river. Spring and fall bring special parades of colors, from redbuds and other plants warmly flowering in spring to bigleaf maples and other trees turning bright colors in fall.

¹³ Paternoster lakes are a series of glacial lakes connected by a single stream or braided stream system.

South Fork Merced River, both above and below Wawona

17) Passing through an untrammeled forested wilderness, the South Fork Merced River forms the centerpiece of some of the Sierra's wildest scenery.

The South Fork Merced River in these stretches is largely inaccessible, with just a few trail crossings above Wawona and none below it. The scenery from the river and its banks is that of an undeveloped Sierra Nevada river valley, with views dominated by forest-cloaked hills, distant peaks, and an untamed river. These are some of the wildest views possible in the Sierra Nevada.

CULTURAL

Yosemite Valley

In Yosemite Valley, the Merced River has created and sustained human life, both through the waters it provides and the plants it sustains, in times past and present. Archeological sites and ongoing cultural attachments indicate a long, treasured, and regionally or nationally rare continuing connection to, and dependence upon, this river:

18) Ethnographic resources in Yosemite Valley represent a rare occurrence of continuing connection of places and people from before 1851 to the present, with the river at the heart of this cultural system.

American Indian groups associate strong spiritual values with the river and Yosemite Valley, attaching names and stories to geological and other significant features in the Merced River corridor. The ethnographic resources here include river related and traditionally used plant species, historic village sites, and spiritual areas. These groups maintain their rights to practice their religion and ceremonies here as they have for thousands of years.

19) The Yosemite Valley Archeological District is a nearly continuous river-related archeological landscape containing dense concentrations of resources reflecting thousands of years of settlement.

Drawn by the year-round availability of water and the diversity of plants available for sustenance in Yosemite Valley, people have inhabited the valley for thousands of years, leaving behind an exemplary collection of archeological sites in the Yosemite Valley Archeological District. Many of these precontact and historic-era archeological sites are identified in ethnographic literature and native oral traditions, providing a particularly rare example of the long and continuing association of people and places. While the landscape itself provides exemplary documentation of land use practices, many of the individual sites contain exceptional information with the potential to interpret not only ancient lifeways, but also cultural change at the period of contact with the outside world. In addition to this regional, and potentially nationally significant scientific and interpretive value, the sites have value to American Indian tribes and groups as a connection to their ancestors.

El Portal

20) With its temperate climate and abundant subsistence resources, El Portal was a crossroads of life and trade, with the river linking lifeways of peoples from the historic and prehistoric past, both in California and beyond.

El Portal's location midway between Yosemite Valley and the San Joaquin Valley made it an important place of settlement, subsistence, and trade along the Merced River. The steep, narrow canyon at El Portal includes river terraces with level lands on which villages were built. The presence of Great Basin and Pacific Coast artifacts indicates that El Portal was a location of continuous, far-reaching traffic and trade. The El Portal Archeological District encompasses an archeological landscape containing dense concentrations of resources representing some of the oldest deposits in the Sierra foothills, with data important to interpreting regional cultural history as old as 9,500 years. Particularly significant is the Johnny Wilson Ranch, a rare example of an American Indian Homestead, which took advantage of the river as an irrigation source. In addition to the regionally significant scientific and interpretive value of the archeological district, the sites have value to parkassociated American Indian tribes and groups as a connection to their ancestors. These groups maintain their rights to practice their religion and ceremonies as they have for thousands of years.

Wawona

Flowing through a broad basin, the South Fork Merced provided the water and location necessary for human settlements both prehistoric and historic. As with Yosemite Valley, there are several cultural ORVs in this area:

21) Physical remnants of U.S. Army Cavalry Camp A. E. Wood document the unique Yosemite legacy of the African-American buffalo soldiers, who founded their camp near the river's strategic water source and related ecological habitat.

Physical remnants of the African-American Buffalo Soldiers' late 19th and early 20th century federal protection of Yosemite National Park are present along the South Fork Merced River in Wawona. These reflect extremely rare African American army troop guardianship of national park lands. These are represented in the archeological remains of Camp A.E. Wood, the first Army headquarters in the park, which was situated near the South Fork and its year-round water source.

22) With its year-round water and level terrain for settlement, the Wawona Archeological District is composed of dense clusters of historic and prehistoric river-related sites that present evidence of far-reaching traffic and trade.

Because there are few springs and no talus shelters in the Wawona area, sites of human activity reaching back thousands of years are concentrated along the river. The presence of Great Basin and Pacific Coast artifacts indicates that Wawona was a location of continuous far-reaching traffic and trade. Sites in this district contain important information relevant to research regarding permanent and semi-permanent settlement along a particularly long midelevation meandering river. In addition to the regionally significant scientific and interpretive value of the archeological district, the sites have value to park-associated American Indian tribes and groups as a connection to their ancestors. These groups

maintain their rights to practice their religion and ceremonies as they have for thousands of years.

23) Built to connect human developments on both sides of the South Fork Merced River, the Wawona Covered Bridge is one of few covered bridges in the region.

Built in 1868 by Yosemite's first guardian, Galen Clark, the Wawona Covered Bridge boasts state significance within transportation, entertainment, and recreation contexts. The bridge embodies the distinctive characteristic of a unique type of construction and is the only historic covered bridge in the western region of the National Park Service.

South Fork Merced River above Wawona

24) Finding seasonal trade, travel, and subsistence opportunities along the South Fork Merced River, Native Americans left behind regionally rare prehistoric rock ring features with wooden remains.

The South Fork Merced River above Wawona presented seasonal trade, travel, and subsistence opportunities for American Indian people. This segment shelters regionally-rare prehistoric archeological sites containing substantial rock ring features with wooden remains. These sites are located adjacent to the river, representing a settlement or land use pattern directly tied to the river as a water source, wildlife corridor, or other strategic purpose. These resources hold regionally important data potential for providing information about subsistence and settlement during the summer months in the high country.

SEGMENTS AND BOUNDARIES

Wild and Scenic Rivers are delineated by segments, according to guidance provided in the Wild and Scenic Rivers Act. The classification of a river segment indicates the level of development on the shorelines, in the watershed, and the degree of accessibility by road or trail. Classifications are defined as follows:

Wild:

Those rivers or sections of rivers that are free of impoundment and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and water unpolluted. These represent vestiges of primitive America.

Scenic:

Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

Recreational:

Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Based on the level of development at the time of designation in 1987, eight (8) segments representing the management areas were established for the Merced River. There are three wild stretches: from the Merced River headwaters to Nevada Fall and South Fork Merced River headwaters to the impoundment above Wawona, and from the Wawona campground downstream to the park boundary. There are four recreational stretches: Yosemite Valley, El Portal, Wawona, and a very small segment at the Wawona impoundment. The only scenic stretch is that through the Merced Gorge between Yosemite Valley and El Portal.

Note that the wild, scenic, and recreational classifications should not be confused with the names of some ORVs (i.e. the scenic and recreational ORVs).

In addition, according to the Wild and Scenic Rivers Act, Section 3(b): "the agency charged with the administration of each component of the national wild and scenic rivers system [...] shall [...] establish detailed boundaries therefore (which boundaries shall include an average of not more than 320 acres of land per mile measured from the ordinary high water mark on both sides of the river)."

Yosemite National Park has established a quarter mile (1/4) boundary measured from the ordinary high water mark on both sides of the river for the 81 miles the agency manages.

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