



Comparison of Merced River Outstandingly Remarkable Values Over Time (1986-present)



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Preamble

This report was prepared by National Park Service in response to comments and questions that were submitted in review of a draft statement of the Merced River's Outstandingly Remarkable Values (ORVs), an initial step toward the completion of a comprehensive management plan that is required by the Wild and Scenic Rivers Act (WSRA). ORVs are typically written as an administrative task that incorporates the professional judgment of the agency that manages the river, based upon the best available scientific analysis and information. Suggestions from organizations and individuals familiar with a river are welcome and valued. To that end, Yosemite National Park staff consulted with interested parties and conducted public workshops to discuss the proposed ORVs.

In the process of public dialogue and discussion, Yosemite National Park staff was asked to provide a comparison of the proposed ORVs to those that were articulated in the past. How have the ORVs changed over time, and why? The NPS recognizes a need to respond to questions and concerns in the interests of promoting transparency, accountability, sharing incremental work products, encouraging dialogue and building understanding between the National Park Service, visitors and stakeholders.

Legislative and Administrative Background

Rivers are added to the nation's Wild and Scenic Rivers System by either of two processes: Congress adds rivers through a legislative process that ends with the President's signature, or rivers may be added by the Secretary of Interior upon nomination by a state legislative and subsequent gubernatorial approval.

Guidance for agency development of ORVs is limited. ORVs for the Merced River were established by the following key references:

- The Wild and Scenic Rivers Act of 1968, 16 USC 1271-1287; Public Law 90-542, as amended
- Wild and Scenic Rivers Guidelines, prepared jointly by the Department of Interior and Department of Agriculture and published in the Federal Register, Volume 47, Number 173, on September 7, 1982
- Guidelines published by the Interagency Wild and Scenic Rivers Coordinating Council, such as "The Wild and Scenic River Study Process," a technical report published in December, 1999
- An overview of legislation and case law also developed by the Interagency Council, "Wild and Scenic River Management Responsibilities," a technical report published in 2002

- Case law, including all relevant opinions of U.S. District Courts and Circuit Courts of Appeal
- A settlement agreement in the matter of *Friends of Yosemite Valley v. Department of Interior*, dated October 2009.

The WSRA states simply "that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values" shall be preserved or protected under the act. Beyond the introductory description of values presented in the opening paragraph of the WSRA, the law provides no definition or specific requirements for developing ORVs. Because of the law's emphasis in protecting and enhancing all river values, this list of ORVs typically forms the foundation of any river study process or comprehensive management plan. WSRA Section 10(a) states, "Each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included in said system ..." Congress directed the Department of the Interior and the Department of Agriculture to focus on specific plans and various management tasks in the administration of the WSRA.

In the interest of consistent implementation of the act, the agencies first published Wild and Scenic Rivers Guidelines in 1970, which were revised in draft form in 1981 and finalized in 1982. The Wild and Scenic Rivers Guidelines say that for "each report," and presumably each plan, "The description of the river area will identify the outstandingly remarkable values and the extent of man's activity in the river environment to provide a clear basis for the findings of eligibility and classification. While only one [ORV] is necessary for eligibility, the study report should carefully document all values of the river area."

With regard to the development of ORV statements, Wild and Scenic Rivers Guidelines state that, "The determination of whether a river area contains 'outstandingly remarkable' values is a professional judgment on the part of the study team. The basis for the judgment will be documented in the study report."

In 1995, the federal agencies charged with implementation of the WSRA – US Forest Service, National Park Service, Fish and Wildlife Service and Bureau of Land Management – established a collaborative working group known as the Interagency Wild and Scenic Rivers Coordinating Council through a charter signed by officials of the Department of Interior and Department of Agriculture. The council's purpose is to improve interagency coordination in administering the WSRA, thereby improving public service and enhancing protection of the nation's river resources.

In 1999, the Interagency Council published "The Wild and Scenic River Study Process" in order to promote consistency and public understanding in the application of the provisions of the WSRA in the study process. This paper has been widely adopted by agencies in the practice of defining what makes a value "outstandingly remarkable." The paper advises that, "In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare or exemplary feature that is significant at a comparative regional or national scale . . . one that is a conspicuous example from among a number of similar values that are themselves uncommon or extraordinary."

Secondly, the Interagency Council urges that studies and plans define the regional context "as a basis for meaningful comparative analysis." The Council suggests that a region should be "defined on the scale of an administrative unit, a portion of a state, or an appropriately scaled physiographic or hydrologic unit."

Finally, the Interagency Council notes that, given the planning emphasis on the river corridor, ORVs should be river-related and river-dependent. "That is, they should: (1) be located in the river or on its immediate shore lands (generally within one-quarter mile on either side of the river); (2) contribute substantially to the functioning of the river ecosystem; and/or (3) owe their location or existence to the presence of the river.

The Interagency Council's paper on "Management Responsibilities" succinctly states that, "The purposes for which [Wild and Scenic Rivers] are added to the National Wild and Scenic Rivers System are made explicit" in Section 1(b) of the WSRA, Congressional Declaration of Policy. Specifically, they are "to protect a river's freeflowing condition, water quality, and outstandingly remarkable values. Sections 7(a) and 10(a) make reference to these collective 'values' for which rivers are added to the National System. A river's ORVs are identified pre-designation through a study or, for an 'instant river,' post-designation during preparation of a [Comprehensive River Management Plan]." Hence, the Interagency Council affirmed that the obligation to define ORVs is retroactive in cases when a river is listed by Congress.

There are a limited number of landmark court cases involving federal agency applications of the Wild and Scenic Rivers Act and the content or composition of ORVs within the planning process:

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- In *Sokol v. Kennedy* (1999), the Eighth Circuit Court of Appeals determined that ORVs must be defined under the “controlling language” of the WSRA. The court found that the NPS erred when it did not specifically define ORVs at the beginning of the Wild and Scenic River planning process for the Niobrara River in Nebraska. Instead, the NPS focused on the “significance” and “importance” of river resources. The NPS argued that the WSRA is unclear on the agency’s obligation to define a river’s ORVs, and the task “was relevant only to the selection of new rivers for inclusion in the Wild and Scenic Rivers System.” The court replied that “this interpretation conflicts with the administrative duty clearly set out in Section 1281(a),” footnoting that, “Such an open-ended and standardless interpretation of the Act would also leave defendants [DOI] open to a claim of unconstitutional delegation of legislative power. We choose to construe the Act in such a way as to avoid any such constitutional question.” [The Interagency Council’s “Study Process” paper was published after the NPS completed the Niobrara River study, in the same month that the Eighth Circuit Court of Appeal issued a decision in this case.]
- Legal challenges to comprehensive management plans sometimes test whether proposed management actions will adequately protect the ORVs. (*Hells Canyon Alliance v. Dombeck*, 2000)
- Merced River ORVs were initially challenged within *Friends of Yosemite Valley, et al. v. Norton* (2003). The ORV statements were initially challenged as arbitrary and capricious, but upheld by the court because ORVs were prepared under the accepted guidance of Interagency Council criteria. The Court of Appeals later affirmed: “With the exception of the user capacities and river boundaries . . . the [Merced River Plan] was prepared with sufficiently specific data and information to satisfy Section 1281(a)’s goal of protecting and enhancing ORVs.”
- In a settlement agreement in the matter of *Friends of Yosemite Valley, et al. v. Salazar*, authorized by the U.S. District Court, Eastern District of California, Fresno Division, the NPS agreed to work with certain user capacity experts and revisit ORVs as part of the planning process. These experts were engaged as consultants at the beginning of the planning process in October, 2009, and worked with park planners in defining revised ORVs with an eye toward what must be addressed under the user capacity study process. The settlement agreement requires the NPS to develop new 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.”

Administrative Development of Merced River ORVs

The evolution of Yosemite’s Merced River ORVs can be traced through six documents:

- Nationwide Rivers Inventory (NRI), 1982
- Sierra National Forest, Draft Land and Resource Management Plan, 1986
- Draft Yosemite Valley Housing Plan, 1996
- Merced River Plan (I) (2000)
- Merced River Plan (II) (2005)
- Draft ORVs for the Merced River, 2008

The development of ORVs in the sequence of these documents will be compared in subsequent pages of this report to the draft 2012 Merced River ORVs.

The Nationwide Rivers Inventory was initially developed by the Bureau of Outdoor Recreation and Heritage Conservation and Recreation Service as a list of rivers that had a potential for listing as Wild and Scenic Rivers. The NRI was established in the 1970s as interagency follow-up to WSRA, which became law in 1968. In 1979, agencies were instructed by presidential directive to refer to the NRI when evaluating project proposals, according to procedures that were promulgated by the Council on Environmental Quality.

The NRI did not specifically address the Merced River in Yosemite National Park. Instead, the NRI identified ORVs for three segments on public lands managed by U.S. Forest Service (USFS) and Bureau of Land Management, all well downstream of Yosemite National Park. The NRI was later amended to add (3) the portion of the North Fork from the forest boundary to the river confluence. The upper Merced River – those portions located inside Yosemite National Park – were not included in the NRI although the river was generally known to be eligible.

Prior to designation of the Merced River in Yosemite National Park, the USFS conducted a comprehensive assessment of the Merced River in the process of completing agency’s Sierra National Forest Plan in 1986. Section 4(a) of the WSRA states that “in the case of a river which is wholly or substantially within a national forest,” a river study will be administered by the Department of Agriculture. USFS therefore included the upper Merced River and first addressed ORVs within the 1986 Forest Management Plan update. Public law 100-149 elevated the Merced to Wild and Scenic River status in an amendment to WSRA passed by the 100th Congress and signed into law by President Reagan in 1987

ORVs for the Merced River in Yosemite Valley were further articulated and revisited during development of the Yosemite Valley Housing Plan of 1996. The NPS plan expanded upon the USFS, listing air quality and science.

Since the Interagency Council’s criteria for ORVs were established in 1999, the 2000 Merced River Plan applied the criteria, resulting in substantial revisions intended to ORVs to the river.

In the 2005 Revised Merced River Plan, the ORVs remained as articulated in 2000, but some technical corrections were incorporated. Subsequent litigation and resulting legal opinions later determined that the plan was invalid. As a result, the ORVs are being revisited as a part of this new planning effort.

The following pages present a compilation of Merced River ORVs, as defined over time. The fundamental river classifications and categories of ORVs have remained consistent with six categories of values defined by the Wild and Scenic Rivers Act: geology, hydrology, biology, recreation, scenery and culture.

Revisions made to the 2010 ORVs adhered to the Interagency Guidelines, as well as guidance from the Interagency Council. The council’s published reports on the study process and management responsibilities link the foundations of the Wild and Scenic Rivers Act with amendments and agency guidelines, and illuminate the role of the courts in the Act’s implementation. These papers reflect the most recent information and provide a comprehensive and thoughtful overview on the administration of the Wild and Scenic Rivers Act.

The Interagency Council notes that in order to be designated a Wild and Scenic River, candidates need only demonstrate one ORV, according to the law and the guidelines. The park’s planning effort therefore concentrates on what is truly unique, rare or exemplary, river-related or river-dependent. Park staff has winnowed the list and focused on more salient attributes of each river segment for each of the ORVs.

Merced River (Main Stem and South Fork) located in YNP

"Guiding Documents"

1982 National Rivers Inventory 1986 Sierra National Forest Draft Forest Land & Resource Management Plan 1996 Draft Yosemite Valley Housing Plan 2000 Merced River Plan 2005 Merced River Plan 2008 Draft ORVs 2010 Merced River Plan

1996 to 2000 Rationale: New scientific information, changed ecological & hydrologic conditions, Interagency Coordinating Council criteria: Is the value river-related or river-dependent? Is the value rare, unique, or exemplary in a regional or national context? --MRP 200 p II-11 For specific reasons on each ORV see 2000 MRP pages E-14 to E-19

See MRP 2000 Part 3 of 3 Appendix E pages E-12 to E-19 for a thorough "line by line" description and explanation of changes in the ORVs up to 2000



2000 to 2005 Rationale: No major changes, however, based on the 2000 ORVs with the exception of the seasonal nature of rapids in EP and avoiding confusion with the USFW "critical habitat" by simply saying "habitat" -- 2000



2005 to 2008 Rationale: After the 2005 MRP was legally challenged, NPS began to work on preparing a new plan. Segmenting and categorizing the ORVs was producing "considerable redundancy among segment, and resulted in the identification of some values that were less than outstandingly remarkable" therefore the 2008 Draft ORVs were "described primarily at a river-corridor-wide level, with specific examples, supporting evidence, and features that more fully explain, illustrate, and contribute to the ORV" -- 2008 Draft ORV p 16



2008 to 2012 Rationale: Focused on Site specific planning due to upper management leadership, will make condition assessments, user capacities, specific numbers realistic and "mappable"; have to be river related and focused, input from Core Team Members and public comments incorporated

Segment 1

Merced River Above Nevada Fall, Headwaters to top of Nevada Fall (Wild)

	1982 National Rivers Inventory	1986 Sierra National Forest Draft Forest Land & Resource Management Plan	1996 Draft Yosemite Valley Housing Plan	2000 Merced River Plan	2005 Merced River Plan	2008 Draft ORVs *The 2008 Draft ORVs were formulated under a "corridor wide" scale. Examples were cited but not intended to be all inclusive	2010 Merced River Plan	Rationale for changes occurring from 2000 to 2010
Categories								
Geologic	n/a	Most spectacular glaciated valley in world, granite cliffs & Domes	Glaciation, cirques, "Lost" and "Twin Bridges" hanging valley separated by cascades; world's largest concentration of granite domes	U-shaped, glacially carved canyon, cascades & soda springs below Washburn Lake	Same as 2000	Glacial Processes	Large-scale, U-shaped glacially-carved canyon, above Bunnell Point shows relationship between geology and river course	The cascades, soda springs, and logjam were removed as they are not rare, unique, or exemplary. Free-flowing conditions are an established river value.
Hydrologic			River gradient from 13,000 to 6,000 feet, glaciers, pristine water quality, log jams	Free flowing, gradient drop, glacial remnants, logjam, numerous cascades		River gradient drop, rapid snowmelt producing high-volume spring flows		
Biological		Vegetation: state-listed rare species	Large specimens of western juniper above Washburn Lake, white fir above LYV, rare plant: Eriophyllum congdonii, rare wildlife: Mt. Lyell salamander, mountain yellow-legged frog, Yosemite toad	Sierra riverine environments, high-quality riparian, meadow, aquatic habitats, special status-species such as mountain yellow-legged frog		Riparian and wetland habitats, rare and special-status plant and animal species: willow flycatcher, Sierra Nevada yellow-legged frog, harlequin duck, black swift, & Tompkin's sedge	Meadows, riparian habitats, annual flooding, 8 of the 9 special status animal species	The mountain yellow-legged frog was removed because it is not river related or dependent.
Recreational			Travel & camping in LYV, Merced Lake, Washburn Lake	Solitude, primitive & unconfined, day hiking, backpacking, horseback riding and packing, camping, enjoyment of natural river sounds, untrailed sections		Hiking, backpacking, writing, contemplation, nature study, photography, artistic expression, fishing, camping, and picnicking--create memories, traditions, and bonding	Hiking & backpacking, wilderness experiences, solitude, personal reflection, closeness to nature, independence, self-reliance, primitive travel, camping, exploration, & adventure, JMT	Horseback riding and packing were not listed specifically because the list of recreation activities is meant to be representative rather than exhaustive.
Scenic		One of most spectacularly scenic canyons in the world, waterfalls	Glaciated Merced Lake, Washburn Lake river Canyon; Bunnell Cascades and confluences of tributaries, Clark and Cathedral ranges	Views of glaciated river canyon, Merced Lake, Washburn Lake, Bunnell Cascades, confluence of tributaries, granite domes, Clark and Cathedral ranges		Seasonal and daily changes, lighting on granite walls, domes, meadows, calm water, rushing cascades, scenic experience encourages interpretation and education	Paternoster Lakes, Montane forest, U-shaped glacial valley, several scenic landmarks listed, natural setting, exceptional scenery	Bunnell Cascades and Clark and Cathedral ranges were removed as they are not rare, unique, or exemplary.
Cultural			Prehistoric, trans-Sierran route used for 3-4 thousand years, 24 archeological sites, 28 historic structures at Merced Lake	Prehistoric, trans-Sierran route used for thousands of years, prehistoric sites, homestead sites, trails, river crossings, HSC, and structures		Trails along Merced for trade and cultural exchange for thousands of years, archeological sites, American Indian spiritual associations	No Cultural ORVs are identified for this segment of the river	The prehistoric, trans-Sierran route used for thousands of years, prehistoric sites, homestead sites, trails, river crossings, HSC, and structures were removed as they are not rare, unique, or exemplary.
Air Quality			Class I airshed					Inconsistent with Interagency Council criteria; not river-related nor -dependent.
Scientific			Scientific resource, invaluable for baseline scientific studies	Significant scientific resource				Inconsistent with Interagency Council criteria; vague and non-specific. Science is inherent to other more specific values.

Segment 2

Yosemite Valley, Top of Nevada Fall to former Cascades Diversion Dam (Recreational)

	1982 National Rivers Inventory	1986 Sierra National Forest Draft Forest Land & Resource Management Plan	1996 Draft Yosemite Valley Housing Plan	2000 Merced River Plan	2005 Merced River Plan	2008 Draft ORVs *The 2008 Draft ORVs were formulated under a "corridor wide" scale. Examples were cited but not intended to be all inclusive	2010 Merced River Plan	Rationale for changes occurring from 2000 to 2010	
Categories									
Geologic	n/a	Most spectacular glaciated valley in world, granite cliffs & Domes	Largest glaciated valley in Sierra, hanging valleys, terminal moraine, exfoliation, exposed granite monoliths	Glaciated U-shaped valley, mature meandering river, hanging valleys listed, glaciation (moraines)	Same as 2000	Glacial processes formed U-shaped valley, Giant Staircase, El Cap moraine, active rock falls	Giant Staircase, El Cap Moraine, Glacial action creating hanging valleys and world-renowned waterfalls, meandering and alluvial river (gentle gradient, flood regime, woody debris, riparian vegetation)	Oxbows, wetlands, and fluvial processes are included in the biological ORV or are included within the expression "meandering and alluvial river." Woody debris and riparian vegetation were added because they are examples of alluvial river functions.	
Hydrologic			World-class waterfalls, flood regime, oxbows, Mirror Lake	Meandering river, world-renowned waterfalls, flood regime, oxbows, wetlands, fluvial processes		Meandering river, hanging valleys, world-renowned waterfalls			
Biological		Vegetation: state-listed rare species Wildlife: peregrine falcon	Half of all plant species in the park found in Valley, riparian and meadow areas, California black oak, wildlife habitat, listing several rare species, including indigenous rainbow trout	Riparian and meadow areas, riparian wetland, riverine areas, habitat for river-related species, special-status species, neotropical songbirds, bat species		Riparian and wetland habitats, rare and special-status plant and animal species: willow flycatcher, Sierra Nevada yellow-legged frog, harlequin duck, black swift, & Tompkin's sedge, Happy Isles fen	Meadows, riparian vegetation, high water table, 8 rare wildlife species, bat species, sedge species--all due to year-round water availability		The Happy Isles fen and neotropical songbirds were removed because they are not river related or dependent. High water table was added because meadows and riparian vegetation are dependent on it.
Recreational		Premier outdoor recreation area in world, picnicking, fishing, swimming, river rafting	Hiking, picnicking, camping, climbing, skiing, fishing, photography, swimming, nature study, horseback riding, biking, sightseeing, and boating	River-related rec activities, nature study & sightseeing to hiking, one of the premier outdoor rec areas in the world		Hiking, backpacking, writing, contemplation, nature study, photography, artistic expression, fishing, camping, and picnicking--create memories, traditions, and bonding, Mist Trail, swimming and floating	World-renowned destination, World Heritage Site, outdoor river-related recreation, active pursuits listed, creative pursuits listed, opportunities for all ages and abilities		Horseback riding and picnicking were not listed specifically because the list of recreation activities is meant to be representative rather than exhaustive.
Scenic		One of most spectacularly scenic canyons in the world, waterfalls	Specific examples of Waterfalls, rock cliffs, & meadows, black oak woodlands, interface of river, rock, meadow, and forest, 18 identified historic vistas	Specific examples of waterfalls, rock cliffs, & meadows; interface of river, rock, meadow, and forest		Specific valley views listed, depictions of the valley in early tourism posters encourage the creation of the NPS, scenic experience encourages interp and education	Famous landmarks listed, compound oxbows, wetlands, and meadows, Montane forest and sheer rock faces create intense contrast and scenic river-related views		Generally consistent over time.
Cultural		Indian sites along river, Miwok area	100 archeological sites, prehistoric people habitation, traditionally used plants, spiritual areas, prehistoric trail juncs, first land area and river designated for preservation in US, historical resources and landscapes	Thousands of years of human occupation, archeological sites, continuing traditional use, designed landscapes & developed areas, historic buildings, circulation systems providing access to natural features that are culturally valuable		Trails along Merced for trade and cultural exchange for thousands of years, cultural landscapes reflecting human footprint, archeological sites, American Indian spiritual associations	Traditional Cultural Property representing people in area before 1851 to present, traditionally used plants, village sites, and spiritual areas, archeological sites, river-dependent culture		Prehistoric trail juncs and circulation systems were removed as they are not rare, unique, or exemplary. Historic buildings were removed because they are not river related or dependent.
Air Quality			Class I airshed						Inconsistent with Interagency Council criteria; not river-related nor -dependent.
Scientific			Scientific resource, invaluable for baseline scientific studies	Significant scientific resource					Inconsistent with Interagency Council criteria; vague and non-specific. Science is inherent to other values.

Segment 3

Merced Gorge, Former Cascades Diversion Dam to western park boundary at Parkline (Scenic)

	1982 National Rivers Inventory	1986 Sierra National Forest Draft Forest Land & Resource Management Plan	1996 Draft Yosemite Valley Housing Plan	2000 Merced River Plan	2005 Merced River Plan	2008 Draft ORVs *The 2008 Draft ORVs were formulated under a "corridor wide" scale. Examples were cited but not intended to be all inclusive	2010 Merced River Plan	Rationale for changes occurring from 2000 to 2010		
Categories										
Geologic	n/a		Transition from U-shaped, glaciated valley to V-shaped gorge	Transition from U-shaped valley to V-shaped gorge with steep gradient	Same as 2000	Glacial Processes	No Geologic/Hydrologic ORVs are identified for this segment of the river	Transition from U-shaped valley to V-shaped gorge with steep gradient was removed as it is not rare, unique, or exemplary; most Sierran rivers have such a transition.		
Hydrologic			"Young river"	Exceptionally steep gradients (2,000 foot elevation drop in 6 miles)		River gradient drop, rapid snowmelt producing high-volume spring flows, rock-fall driven morphology resulting in the deposition of enormous boulders				
Biological		Vegetation: state-listed rare species Wildlife: peregrine falcon	Diverse riparian areas intact and almost entirely undisturbed, canyon live oak research, indigenous rainbow trout	Rich and diverse riparian habitat associated with intact special status species that are relatively undisturbed		Riparian and wetland habitats, rare and special-status plant and animal species: willow flycatcher, Sierra Nevada yellow-legged frog, harlequin duck, black swift, & Tompkin's sedge			No Biologic ORVs are identified for this segment of the river	Rich and diverse riparian habitat associated with intact special status species that are relatively undisturbed was removed as it is not rare, unique, or exemplary.
Recreational			Picnicking, climbing, fishing, photography, and sightseeing	River-related rec opportunities: Picnicking, fishing, photography, and sightseeing		Views of granite cliffs, roar and vibrations of river during spring runoff, picnicking--create memories, traditions, and bonding			Scenic driving and access to several pools and beaches for swimming, fishing, and picnicking; natural setting and opportunities for solitude	Climbing and photography were not listed specifically because the list of recreation activities is meant to be representative rather than exhaustive.
Scenic		one of most spectacularly scenic canyons in the world, waterfalls	View of Pulpit Rock and Rainbow, views of specific waterfalls and rocks listed, V-shaped gorge; the river and its cascades	Views of the Cascades, spectacular rapids among giant boulders, views of specific waterfalls and rocks listed		Seasonal and daily changes, lighting on granite walls, calm water, rushing cascades, scenic experience encourages interpretation and education			Narrow gorge, massive boulders, canyon walls and cliffs, waterfalls, parades of color	Present draft is consistent with statements made in the past.
Cultural		Indian sites along river, Miwok area	Archeological sites in the Cascades area	Prehistoric sites and historic sites & structures such as those relating to historic engineering projects		Trails along Merced for trade and cultural exchange for thousands of years, archeological sites, American Indian spiritual associations			Cultural ORVs were not identified for this segment of the river.	Prehistoric sites and historic sites & structures such as those relating to historic engineering projects were removed as they are not rare, unique, or exemplary.
Air Quality			Class I airshed							Inconsistent with Interagency Council criteria; not river-related nor -dependent.
Scientific			Scientific resource, invaluable for baseline scientific studies	Significant scientific resource						Inconsistent with Interagency Council criteria; vague and non-specific. Science is inherent to other more specific values.

Segment 4

El Portal, Parkline to El Portal Administrative Site Boundary (Recreational)

	1982 National Rivers Inventory	1986 Sierra National Forest Draft Forest Land & Resource Management Plan	1996 Draft Yosemite Valley Housing Plan	2000 Merced River Plan	2005 Merced River Plan	2008 Draft ORVs *The 2008 Draft ORVs were formulated under a "corridor wide" scale. Examples were cited but not intended to be all inclusive	2010 Merced River Plan	Rationale for changes occurring from 2000 to 2010
Categories								
Geologic	n/a	Contact between metasedimentary & granitic rocks	Transition from igneous to meta-sedimentary rocks--possibly oldest in Sierra Nevada	Transition from igneous to metasedimentary rocks--among oldest in Sierra Nevada	Same as 2000	Glacial Processes	Massive boulder bar due to steepness of gorge, gradient drop after gorge, and peak floods	Corrected to reflect the seasonal nature of snow-melt -- MRP 2005 p I-13 "Hydrologic process of continuous rapids in EP has been determined not to be" an ORV "in a regional context" -- 2008 Draft ORVs p 16 Transition from igneous to metasedimentary rocks--among oldest in Sierra Nevada was removed as it is not rare, unique, or exemplary (occurring on most rivers flowing west from the Sierra crest). The massive boulder bar was added due to public correspondence.
Hydrologic			Continuous rapids throughout segment	Continuous rapids	Characterized by seasonally continuous rapids			
Biological		Vegetation: state-listed rare species	Rare plant species listed, valley elderberry longhorn beetle and its habitat, spotted owl habitat, riparian zone for wildlife species	Riverine habitats: riparian woodlands associated with special-status species, Tompkin's sedge and Valley elderberry longhorn beetle and its habitat; riparian zone for wildlife species	Same as 2000	Riparian and wetland habitats, rare and special-status plant and animal species: willow flycatcher, Sierra Nevada yellow-legged frog, harlequin duck, black swift, & Tompkin's sedge		
Recreational		Whitewater boating	Whitewater use (class III to V) and fishing	Range of river-related rec opportunities, white-water rafting and kayaking (class III to V) and fishing		Hiking, backpacking, writing, contemplation, nature study, photography, artistic expression, fishing, camping, and picnicking--create memories, traditions, and bonding	Largely natural setting allowing visitors to easily connect with river; several pools and beaches; swimming, relaxing, and fishing	Boating occurs downstream of Foresta Rd bridge, but is not permitted on the Merced River in the administrative site. Recreational activities have been revised to include what is river-related and accessible in this segment.
Scenic			None.			Seasonal and daily changes, lighting on granite walls, calm water, rushing cascades, scenic experience encourages interpretation and education	No Scenic ORVs are identified for this segment of the river	Present draft is consistent with statements made in the past.
Cultural		El Portal, old mining town, rail-road exhibit	Native American habitation; 17 archeological sites, including burials, historic structures; logging railroad incline	Some of the oldest archeological sites in Yosemite, historic Indian villages and gathering places, historic structures related to early tourism and industrial development		Trails along Merced for trade and cultural exchange for thousands of years, archeological sites, American Indian spiritual associations	Important place of settlement, subsistence, and trade along the River; village sites; some of the oldest archeological deposits in the Sierra foothills (9,500 years), Johnny Wilson Ranch (American Indian Homestead)	Historic structures related to early tourism and industrial development were removed as they are not rare, unique, or exemplary, occurring in many resort areas along rivers in the country. The Johnny Wilson Ranch was added because it is rare, unique, and exemplary.
Air Quality								Inconsistent with Interagency Council criteria; not river-related nor -dependent.
Scientific			Scientific resource, invaluable for baseline scientific studies	Significant scientific resource				Inconsistent with Interagency Council criteria; vague and non-specific. Science is inherent to other more specific values.

Segment 5

South Fork Merced River Above Wawona, Headwaters to top of pool at Wawona Impoundment (Wild)

	1982 National Rivers Inventory	1986 Sierra National Forest Draft Forest Land & Resource Management Plan	1996 Draft Yosemite Valley Housing Plan	2000 Merced River Plan	2005 Merced River Plan	2008 Draft ORVs *The 2008 Draft ORVs were formulated under a "corridor wide" scale. Examples were cited but not intended to be all inclusive	2010 Merced River Plan	Rationale for changes occurring from 2000 to 2010	
Categories									
Geologic	n/a	The South Fork was not included in the 1986 ORVs	V-Shaped canyons due to extremely hard rock, moraine meadows, hot sulphur springs above Gravelly Ford, Paternoster lakes	Glaciated valleys in high country & V-shaped canyons above Wawona; moraine meadows and soda springs above Gravelly Ford are river-related geologic features	Same as 2000	Glacial Processes	No Geologic/Hydrologic ORVs are identified for this segment of the river	The Glaciated valleys in high country & V-shaped canyons above Wawona and moraine meadows and soda springs above Gravelly Ford were removed as they are not rare, unique, or exemplary. Free-flowing conditions and water quality are established river values.	
Hydrologic			Free-flowing river and pristine water quality	Free-flowing river and excellent water quality		River gradient drop, rapid snowmelt producing high-volume spring flows			
Biological			Rare wildlife species, including Wawona riffle beetle & mountain yellow-legged frog	Riverine environments typical of Sierra; examples of special-status species, including Wawona riffle beetle & mountain yellow-legged frog		Riparian and wetland habitats, rare and special-status plant and animal species: willow flycatcher, Sierra Nevada yellow-legged frog, harlequin duck, black swift, & Tompkin's sedge	Meadows, riparian habitats, depend on annual flooding, 8 of the 9 special status animal species		Wawona riffle beetle and mountain yellow-legged frog were removed because they are not river related or dependent. Meadow and riparian habitats, depend on annual flooding were added because they are rare, unique, or exemplary.
Recreational			Pristine wilderness values; no trails along river	River related solitude, enjoyment of natural river sounds, primitive & unconfined recreation; predominantly without trails, except 4 bridgeless trail crossings in the upper segment		Hiking, backpacking, writing, contemplation, nature study, photography, artistic expression, fishing, camping, and picnicking--create memories, traditions, and bonding	Dramatic scenery, natural sounds, hiking & backpacking, wilderness experiences, solitude, personal reflection, closeness to nature, independence, self-reliance, primitive travel, camping, exploration, & adventure		"Predominantly without trails, except 4 bridgeless trail crossings" was moved to the scenic ORV.
Scenic			Views of Triple Divide Peak and Sierra Crest	Views of unique river features: large pothole pools in slick rock cascades, old growth forest, and meadows		Seasonal and daily changes, lighting on granite walls, domes, meadows, calm water, rushing cascades, scenic experience encourages interpretation and education	Largely inaccessible; few trail crossings; unspoiled Sierra Nevada river valley views dominated by forest-cloaked hills, distant peaks, and an untamed river; some of the wildest views possible in the Sierra Nevada		"Few trail crossings" was moved from the recreation ORV to the scenic ORV. Old growth forest is reworded as "forest-cloaked hills." Meadows were removed because they are not rare, unique, or exemplary in terms of scenery. Park staff will investigate the large pothole pools in slick rock cascades next summer and adjust the 2010 ORV description as needed.
Cultural			Archeological sites and historical properties; large expanse of wilderness	River-related prehistoric sites and resources; historic stock use and cavalry activities		Trails along Merced for trade and cultural exchange for thousands of years, archeological sites, American Indian spiritual associations	Finding seasonal trade, travel, and subsistence opportunities along the South Fork Merced, Native Americans left behind regionally rare rock ring features with wooden remains.		Historic stock use and cavalry activities were removed because they are not river related or dependent, nor are they rare, unique, or exemplary.
Air Quality			Class I airshed						Inconsistent with Interagency Council criteria; not river-related nor -dependent.
Scientific			Scientific resource, invaluable for baseline scientific studies	Significant scientific resource					Inconsistent with Interagency Council criteria; vague and non-specific. Science is inherent to other more specific values.

Segment 6

Wawona Impoundment, Top of pool at Wawona Impoundment to 200 feet below dam (Recreational)

	1982 National Rivers Inventory	1986 Sierra National Forest Draft Forest Land & Resource Management Plan	1996 Draft Yosemite Valley Housing Plan	2000 Merced River Plan	2005 Merced River Plan	2008 Draft ORVs *The 2008 Draft ORVs were formulated under a "corridor wide" scale. Examples were cited but not intended to be all inclusive	2010 Merced River Plan	Rationale for changes occurring from 2000 to 2010
Categories								
Geologic	n/a	The South Fork was not included in the 1986 ORVs			Same as 2000		No ORVs are identified for this river segment	The impoundment "is not consistent with the basis of the Wild and Scenic River designation and is" not an ORV -- 2008 Draft MRP p 16
Hydrologic			Excellent water quality	Excellent water quality				
Biological								
Recreational			Sightseeing, fishing, photography, and hiking					
Scenic			Views of the river and Wawona Dome	Views of the river and Wawona Dome				
Cultural			Archeological sites and historic properties					
Air Quality			Class I airshed					
Scientific			Scientific resource, invaluable for baseline scientific studies	Significant scientific resource				

Segment 7

Wawona, 200 feet below dam Wawona Impoundment to Squirrel Creek (Recreational)

	1982 National Rivers Inventory	1986 Sierra National Forest Draft Forest Land & Resource Management Plan	1996 Draft Yosemite Valley Housing Plan	2000 Merced River Plan	2005 Merced River Plan	2008 Draft ORVs *The 2008 Draft ORVs were formulated under a "corridor wide" scale. Examples were cited but not intended to be all inclusive	2010 Merced River Plan	Rationale for changes occurring from 2000 to 2010	
Categories									
Geologic	n/a	The South Fork was not included in the 1986 ORVs	Moraines; geomorphology of Wawona Meadow; Wawona Dome		Same as 2000	Glacial Processes	No Geologic/hydrologic ORVs are identified for this segment of the river.	Water quality is an established river value.	
Hydrologic			Excellent water quality	Excellent water quality		Low gradient slows river, rapid snowmelt producing high-volume spring flows			
Biological			Rare wildlife species and rare plant species listed (including <i>Myrica hartwegii</i>); Wawona Meadow rare - threatened plant community in CA, contains high species diversity, wetlands, & specialized habitats	Diversity of river-related species, wetlands, and riparian habitats; Special status species, including Wawona riffle beetle		Riparian and wetland habitats, rare and special-status plant and animal species: willow flycatcher, Sierra Nevada yellow-legged frog, harlequin duck, black swift, & Tompkin's sedge	Sierra sweet bay (<i>Myrica hartwegii</i>), a rare plant found exclusively on river banks in the central Sierra, occurs along the South Fork in this segment		Diversity of river-related species, wetlands, and riparian habitats were removed as they are not rare, unique, or exemplary, with the exception of <i>Myrica hartwegii</i> . Special status species, including Wawona riffle beetle, were removed because they are not river related or dependent.
Recreational			Hiking, picnicking, camping, skiing, fishing, photography, swimming, nature study, horseback riding, biking, sightseeing, and boating	Opportunities to experience a spectrum of river-related rec activities, from nature study and photography to hiking		Hiking, backpacking, writing, contemplation, nature study, photography, artistic expression, fishing, camping, and picnicking--create memories, traditions, and bonding	Largely natural setting allowing visitors to easily connect with river; several pools and beaches; swimming, relaxing, and fishing; camping allows visitors to be close to river overnight		Hiking, picnicking, skiing, photography, horseback riding, biking, sightseeing, and boating were not listed specifically because the list of recreation activities is meant to be representative rather than exhaustive. Fishing was added because it is one of several popular and commonly participated-in activities in the Wawona segment. In general, fishing experiences are dependent on the presence of a fishery, not whether it is native versus introduced necessarily.
Scenic			Views of Wawona Dome; the free-flowing river; historic vistas; view of confluence and cascades of Chilnualna Creek; confluence of Big Creek	Views of Wawona Dome		Seasonal and daily changes, lighting on granite walls, domes, meadows, calm water, rushing cascades, scenic experience encourages interpretation and education	No Scenic ORVs are identified for this segment of the river.		Views of Wawona Dome were removed as they are not rare, unique, or exemplary.
Cultural			Over 60 prehistoric and historic archeology sites, traditional plant gathering; historic structures: Wawona hotel, pioneer historic center, Galen Clark homestead, Stella Lake; historic sites in Wawona Meadow	Thousands of years of human occupation, including numerous prehistoric and historic Indian villages; historic sites, structures, and landscape features related to tourism, early Army and NPS admin, and homesteading		Trails along Merced for trade and cultural exchange for thousands of years, archeological sites, American Indian spiritual associations; covered bridge built by Galen Clark in 1868 as an open truss span (covered in 1875)	Flowing through a broad basin, the South Fork Merced provided the water and location necessary for prehistoric settlements, for the African-American buffalo soldiers, and for more recent settlers, who left behind evidence of far-reaching traffic and trade, significant archeological sites, and one of very few covered bridges in the region.		Generally consistent over time.
Air Quality			Class I airshed						Inconsistent with Interagency Council criteria; not river-related nor -dependent.
Scientific			Scientific resource, invaluable for baseline scientific studies	Significant scientific resource					Inconsistent with Interagency Council criteria; vague and non-specific. Science is inherent to other more specific values.

Segment 8

South Fork Merced River Below Wawona, Squirrel Creek to western park boundary (Wild)

	1982 National Rivers Inventory	1986 Sierra National Forest Draft Forest Land & Resource Management Plan	1996 Draft Yosemite Valley Housing Plan	2000 Merced River Plan	2005 Merced River Plan	2008 Draft ORVs 2008 Draft ORVs were formulated under a "corridor wide" scale. Examples were cited but not intended to be all inclusive *The	2010 Merced River Plan	Rationale for changes occurring from 2000 to 2010		
Categories										
Geologic	n/a	The South Fork was not included in the 1986 ORVs	Transition from glaciated to unglaciated canyon	Transition from Paleozoic Era igneous to Cretaceous Period metasedimentary rock (among oldest in Sierra)	Same as 2000	Glacial Processes	No Geologic/hydrologic ORVs are identified for this segment of the river.	Transition from Paleozoic Era igneous to Cretaceous Period metasedimentary rock (among oldest in Sierra) was removed as it is not rare, unique, or exemplary. Free-flowing condition is an established river value.		
Hydrologic			Continual whitewater cascades and excellent water quality	Free-flowing river with continual white-water cascades		White water cascades in a deep, narrow canyon through a wild environment; rock fall-driven morphology resulting in deposition of enormous boulders, rapid snowmelt producing high-volume spring flows				
Biological			Rare plant species listed (but not <i>Myrica hartwegii</i>); rare wildlife species, including Wawona riffle beetle and rainbow trout	Diverse riparian areas that are intact and undisturbed by humans; special-status species, including Wawona riffle beetle		Riparian and wetland habitats, rare and special-status plant and animal species: willow flycatcher, Sierra Nevada yellow-legged frog, harlequin duck, black swift, & Tompkin's sedge			Sierra sweet bay (<i>Myrica hartwegii</i>), a rare plant found exclusively on river banks in the central Sierra, occurs along the South Fork in these segments.	Myrica hartwegii was added because it is rare and river-dependent, found exclusively on the S. Fork river banks and those of a few other streams in the Sierra. Wawona riffle beetle was removed because it is not river related or dependent.
Recreational			Fishing and wilderness inaccessibility and solitude	Outstanding opportunities for river-related solitude, enjoyment of natural river sounds, primitive & unconfined rec in an untrailed, undisturbed environment; river related rec includes hiking, fishing, & white-water kayaking		Hiking, backpacking, writing, contemplation, nature study, photography, artistic expression, fishing, camping, and picnicking--create memories, traditions, and bonding			Hiking & backpacking, wilderness experiences, solitude, personal reflection, closeness to nature, independence, self-reliance, primitive travel, camping, exploration, & adventure; off-trail hiking and class V kayaking	Generally consistent over time.
Scenic			Views of continual whitewater cascades in a deep and narrow canyon	Views of continual white-water cascades in the deep and narrow river canyon in untrailed, undisturbed environment		Seasonal and daily changes, calm water, rushing cascades, scenic experience encourages interpretation and education			Largely inaccessible; no trail crossings; unspoiled Sierra Nevada river valley views dominated by forest-cloaked hills, distant peaks, and an untamed river; some of the wildest views possible in the Sierra Nevada	Views of continual white-water cascades in the deep and narrow river canyon in untrailed, undisturbed environment were removed because they are not rare, unique, or exemplary.
Cultural			Archeological sites and historic properties	Archeological sites and historic resources such as trail segments representing early cavalry activity		Trails along Merced for trade and cultural exchange for thousands of years, archeological sites, American Indian spiritual associations			No cultural ORVs are identified for this segment of the river.	Archeological sites and historic resources such as trail segments were removed because they are not rare, unique, or exemplary, nor are they river related or dependent.
Air Quality			Class I airshed							Inconsistent with Interagency Council criteria; not river-related nor -dependent.
Scientific			Scientific resource, invaluable for baseline scientific studies	Significant scientific resource						Inconsistent with Interagency Council criteria; vague and non-specific. Science is inherent to other more specific values.

References

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