

Appendix F: Merced Wild and Scenic River

Section 7 Determination

Introduction

Purpose of this Determination

In 1987, the United States Congress designated the Merced Wild and Scenic River to protect the river's free-flowing condition and to protect and enhance its unique values for the benefit and enjoyment of present and future generations (16 USC 1271). This designation gives the Merced River special protection under the Wild and Scenic Rivers Act.

The Ahwahnee Comprehensive Rehabilitation Plan includes three actions that would be located on stream tributaries to the Merced Wild and Scenic River and therefore require additional consideration under section 7(a) of the Wild and Scenic Rivers Act. The purpose of this determination is to evaluate the potential of these actions to either invade or diminish the scenic, recreational, fish, or wildlife values of the wild and scenic river.

Authority

The authority for this determination is found in section 7(a) of the Wild and Scenic Rivers Act (Public Law 90-542, as amended, 16 United States Code [USC] 271-1278). Section 7 states:

...no department or agency of the United States shall assist by loan, grant, license or otherwise in the construction of any water resources project¹ that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration. Nothing contained in the foregoing sentence, however, shall preclude licensing of, or assistance to, developments below or above a wild, scenic or recreational river area or on any stream tributary thereto which will not invade the area or unreasonable diminish the scenic, recreation, and fish and wildlife values present in the area of the date of designation of a river as a component of the national wild and scenic rivers system.

While the Wild and Scenic Rivers Act does not prohibit development along a river corridor, it does prohibit activities that would interfere with the free-flowing condition of the river or degrade the values for which it was designated wild and scenic. The Act specifies guidelines for the determination of appropriate actions in the bed and banks of the river and either below, above, or on a tributary to a wild and scenic river.

As the designated river manager for the Merced River segments located within the boundaries of Yosemite National Park, the National Park Service must carry out a determination of effects on all proposed water resources projects¹ in accordance with section 7(a) of the Act.

¹ A water resources project is any dam, water conduit, powerhouse, transmission line, or other works project under the Federal Power Act, or other developments, that would affect the free-flowing character of a wild and scenic or congressionally authorized study river. In addition to projects licensed by the Federal Energy Regulatory Commission, water resources project may include: dams, water diversions, fisheries habitat and watershed restoration, bridges and other roadway construction/reconstruction projects, bank stabilization projects, channelization projects, levee construction, boat ramps, fishing piers, and activities that require a Section 404 permit from the U.S. Army Corps of Engineers (Interagency Wild and Scenic Rivers Coordinating Council 2004.)

Methodology

While the Ahwahnee Comprehensive Rehabilitation Plan does not propose actions within the bed and banks of the Merced Wild and Scenic River, actions are proposed on two upstream tributaries. Section 7(a) of the Act provides a specific standard for review of developments below or above or on a stream tributary to a designated river. Such developments may occur as long as the project “will not invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area as of the date of designation. . . .” The section 7 evaluation for three actions associated with The Ahwahnee Comprehensive Rehabilitation Plan is based on guidance provided in the Wild and Scenic Rivers Act: Section 7 Technical Report, Appendix D: Evaluation Procedure under “Invade the Area or Unreasonably Diminish” (Interagency Wild and Scenic Rivers Coordinating Council 2004) .

The initial question to be addressed is whether or not the proposed project invades the designated river. The term “invade” is defined as “encroachment or intrusion upon.”

If the proposed project does not invade the designated river, the next question to be answered, relative to the standard in section 7(a), is whether or not the proposed project will “unreasonably diminish” any of the specified values. Given that the standard implies that some diminution of values may be determined reasonable, there are two questions to consider:

1. Does the proposed project cause diminution of the scenic, recreation, and fish and wildlife values of the designated river as present at the date of designation?
2. If there is diminution, is it unreasonable? This would suggest an evaluation of the magnitude of the loss. Factors to be considered include:
 - a. Whether the value contributed to the designation of the river (i.e., an outstandingly remarkable value); and,
 - b. The current condition and trends of the resource. (If diminution is determined unreasonable, measures may be recommended to reduce adverse effects to within acceptable levels).

Merced Wild and Scenic River Outstandingly Remarkable Values

Outstandingly remarkable values are the river-related values that make the river unique and worthy of special protection. They form the basis for the river’s designation as wild and scenic. The current version of the outstandingly remarkable values for the Merced River (January 2011) for the Yosemite Valley segment are outlined below.

Biological

The Merced River and the 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. 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.

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 River and the South Fork Merced River provide for exceptional outdoor river-related recreational experiences. The dramatic and picturesque setting (also described in the scenic value, below) 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, 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 River and the South Fork Merced River are places to experience a wild and scenic river in one of America's first and most revered national parks.

Geologic/Hydrologic

The Merced River contains geologic and hydrologic processes that continue to shape the landscape. Glacial pathways, which the river partly determined and 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 and hanging valleys, 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, and whether the views include El Capitan, Half Dome, Triple Divide Peak, 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.

Rationale for Determination

The Ahwahnee Comprehensive Rehabilitation Plan Environmental Assessment provides the basis for this section 7 determination. The comprehensive rehabilitation plan is in compliance with established policies and plans providing direction for Yosemite National Park. The document also fulfills the requirements of section 102(2) C of the National Environmental Policy Act and section 106 the National Historic Preservation Act. The Affected Environment and Environmental Consequences section of the document (Chapter 3) describes the existing condition of resources in the project vicinity and analyzes the potential environmental impacts associated with implementation of each of the proposed alternatives.

Project Description

The comprehensive rehabilitation plan provides for phased, long-term rehabilitation of The Ahwahnee hotel and its associated structures in Yosemite Valley. The Ahwahnee is a NPS-owned and concessioner-operated luxury hotel that provides year-round visitor accommodations, dining, special events, and retail sales. It remains one of the more regularly visited attractions by

both day and overnight visitors to the park. The Ahwahnee hotel was listed on the National Register of Historic Places in 1977 and was designated a National Historic Landmark in 1987.

After more than 80 years in service, facilities at The Ahwahnee are not fully compliant with current fire protection and building codes, recommended seismic safety practices, and accessibility codes and guidelines. Many of the electrical, plumbing, and mechanical systems are aging and need to be replaced or updated. In addition, some historic hotel finishes and landscape components have deteriorated or been altered over the years, potentially affecting the historic integrity of this National Historic Landmark.

Action 1: Code-Required Emergency Access Road - Bridge

The existing fire department access road from The Ahwahnee hotel parking area to the cottages terminates at the service entrance to the cottages. Termination of the existing fire access road at this location is not in compliance with fire code requirements for maximum allowable distance between access roads and structures, as several cottages are too far from the service road for emergency vehicle access. (The majority of the cottages are more than 50 feet from a fire department access road, and several of the cottages are more than 150 feet from a fire department access road.) In order to meet fire code requirements for allowable distance, the existing access road would be extended south of the cottages along the alignment of an existing, unmaintained service road.

This unmaintained service road was selected for fire department access because it provides the only existing access to southern and western side of the cottage area and it is the only means to access existing fire hydrants in that area. However, this unmaintained service road is not currently compliant with fire code requirements for width, surfacing, drainage crossings, and turnarounds. In order to extend the fire department access along this alignment, this project would improve the unmaintained service road to comply with fire code specifications.

Currently, the unmaintained service road crosses an unnamed seasonal tributary to the Merced River via a hardened earth low water crossing. Low water crossings are not compliant with fire code because drainage crossings must be “all-weather,” where emergency vehicles are not subject to passing through water, ice, or soft roadbeds. Therefore, the National Park Service has determined that a bridge is required at the drainage crossing to allow emergency vehicles and personnel to access the cottages in a code-compliant manner.

Action 2: Code-Required Emergency Access Road - Culverts

The existing fire department access road to the cottages includes five culverts at drainage crossings on tributaries to the Merced River: a twin pipe culvert at Royal Arch Creek, and a single pipe culvert and a twin pipe culvert at the unnamed seasonal tributary. The road to the cottages narrows to as little as 9 feet wide over these culverts; to comply with fire code, all existing culverts may need to be improved or replaced to support road widening to a code-compliant width. In addition, it is not known if the existing culverts comply with fire code load-bearing requirements. The existing culverts would need to be modified or replaced to meet fire code requirements for road width and load weight.

Action 3: Consolidated Utility Corridor

The third action involves installing a consolidated utility corridor from the hotel to the cottages following existing circulation paths to the extent possible. Further design will dictate the exact route and distribution points the utility corridor will follow, however, the route would require crossing Royal Arch Creek, a tributary to the Merced River. It is anticipated that utilities would be suspended from underneath the existing footbridge over Royal Arch Creek.

Analysis

Considerations

Does the proposed project invade the designated Merced River?

The proposed actions would be located within the Merced Wild and Scenic River corridor, in the east end of the Yosemite Valley segment, within The Ahwahnee hotel cultural landscape. The proposed actions would occur on two tributaries to the Merced River, but would not be located within the 100-year floodplain. Culvert work would occur within the bed and banks of the tributaries and construction work could occur within the ordinary high water mark.

Potential construction impacts from these three actions would be minimized by scheduling construction activities during seasonal periods of low or no water. Additional mitigation measures would include minimizing the disturbance area at the banks of the tributaries, salvaging excavated materials for replacement after construction, returning the banks to their pre-existing contours, and implementing Best Management Practices (see Appendix E of the environmental assessment) during construction to ensure that construction activities would not affect water turbidity, temperature, or nutrient availability.

The span and abutment placement for the bridge and the final culvert dimensions would be determined by hydrologists and engineers during the design phase of the project. The bridge design and culverts would accommodate braided flow channels in order to minimize impacts to hydrologic function and free-flowing condition. In addition, the bridge abutments would be constructed outside of the ordinary high water mark and in accordance with U.S. Army Corps of Engineers and California Regional Water Quality Control Board permit stipulations. The bridge would also be designed to be low-profile and compatible with the character of the cultural landscape. In combination with the mitigation proposed above for construction activities, the bridge and culverts would not impede the free-flowing condition of the Merced River and hydrologic processes would be protected during low and high water periods.

Final design of the utility corridor would not impede hydrologic processes associated with Royal Arch Creek, as utilities would be suspended underneath an existing footbridge. The suspended utilities would not be visible from the foot path.

Therefore, the proposed actions will not encroach or intrude upon the hydrologic function of the Merced River and will not invade the wild and scenic river.

Does the proposed project unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area as of the date of designation?

| 1986 Sierra National Forest Draft Forest and Resource Management Plan | Merced Wild and Scenic River, Yosemite Valley Segment 2011 Draft Outstandingly Remarkable Values | The Ahwahnee Comprehensive Rehabilitation Plan Proposed Tributary Crossings |
|--|---|---|
| <p>Scenic</p> <p>One of the most spectacularly scenic canyons in the world, waterfalls</p> | <p>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 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.</p> | <p>Scenic and visual landscape elements would not be affected by the proposed actions.</p> <p>The final bridge design and culverts for code-compliant fire department access would be low profile, compatible with the surrounding cultural landscape, and would not be visible from the Merced River upon project completion.</p> <p>The utility crossing at Royal Arch Creek would not be visible upon project completion.</p> <p>Short-term visual impacts during installation of the bridge, culverts and utility crossing would be visible from the banks of the Merced River.</p> |
| <p>Recreational</p> <p>Premier outdoor recreation area in the world, picnicking, fishing, swimming, and river rafting</p> | <p>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 outstanding 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.</p> | <p>Recreational opportunities would not be diminished in the project area. The proposed plan would not change access to river resources, or the level of development, or visitor services in this river segment.</p> |
| <p>Fish and Wildlife</p> <p>Vegetation: state-listed rare species</p> <p>Wildlife: peregrine falcon</p> | <p>The large, moist, mid-elevation meadows and the associated 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 their associated riparian habitats and wildlife species are rare and unusual at a regional and national scale. The meadows and riparian habitats sustain harlequin ducks, bald eagles, black swifts, willow flycatchers, yellow warblers, western red bats, and Sierra Nevada mountain beaver, along with 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.</p> | <p>The project will not have a long-term impact on vegetation or wildlife communities, habitat, diversity, or the river process that species depend on. Project specific mitigation measures (see Appendix E, Mitigation Measures) would be implemented to minimize any impacts to wildlife or associated habitat during construction. There would be no impacts on fish.</p> |

Section 7 Determination

The Ahwahnee Comprehensive Rehabilitation Plan includes three actions that are located on stream tributaries to the Merced River. Two of the proposed actions are associated with code-required fire department access to the cottages: a new vehicle rated bridge on an unnamed seasonal tributary and the upgrade or replacement of culverts on an unnamed seasonal tributary and Royal Arch Creek. The third action is the installation of a new utility corridor along an existing path from The Ahwahnee hotel to The Ahwahnee cottages that crosses Royal Arch Creek.

Using The Ahwahnee Comprehensive Rehabilitation Plan Environmental Assessment as the basis for the section 7 determination and implementing specific mitigation measures (e.g. performing construction at periods of low or no water, application of Best Management Practices, and seasonal species-specific restrictions for construction activities) outlined in Appendix E of the environmental assessment, the National Park Service has determined that the proposed projects will not invade the Wild and Scenic Merced River or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area as of the date of designation.

Recommended by Don L. Neubacher, Superintendent

Date

Approved by Chris Lehnertz, Regional Director

Date

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