



# United States Department of the Interior

NATIONAL PARK SERVICE

Yosemite National Park  
P.O. Box 577  
Yosemite, California 95389

IN REPLY REFER TO:  
L7617 (YOSE-PM)

## Memorandum

To: Jim Roche, Project Manager, Resources Management and Science, Yosemite National Park

From: Superintendent, Yosemite National Park

Subject: Notice to Proceed, 2007-097 Wawona South Fork of the Merced River Gage Installation

Your proposed project is an action that has been determined to result in no measurable environmental effects. It is therefore categorically excluded from further National Environmental Policy Act analysis under Categorical Exclusion: DO12 3.4 C (5) - *Installation of signs, displays, and kiosks*.

Necessary compliance coordination has been completed regarding the National Historic Preservation Act, the Wilderness Act, the Wild and Scenic Rivers Act, and the Endangered Species Act, as applicable. This project clearance is valid providing that you adhere to any conditions that may be stipulated in the enclosed *Categorical Exclusion Form* and associated documents when implementing this project.

//R. Kevin Cann//  
Michael J. Tollefson

8/14/07  
Date

Enclosure (with attachments)

cc: Statutory Compliance File

*The signed original of this document is on file at the Environmental Planning and Compliance Office in Yosemite National Park.*

## Categorical Exclusion

(Version: OCT06)

Compliance Tracking Number: 2007-097

PEPC Project Number: 19597

### A. PROJECT INFORMATION

**Title:** Wawona South Fork of the Merced River Gage Installation

**Location:** Wawona, Mariposa County, California

**Project Manager:** Jim Roche, Resources Management and Science, Yosemite National Park

### B. COMPLIANCE DETERMINATION

This project is an action that has been determined to result in no measurable environmental effects. It is therefore categorically excluded from further National Environmental Policy Act (NEPA) analysis under Categorical Exclusion: DO12 3.4 C (5) - *Installation of signs, displays, and kiosks*.

Necessary compliance coordination has been completed regarding the National Historic Preservation Act, the Wilderness Act, the Wild and Scenic Rivers Act, and the Endangered Species Act, as applicable. Environmental impacts will be negligible or less when the project is implemented with the conditions stipulated under **Project Mitigations and Conditions** in **Section I** at the end of the attached *Environmental Screening Form*.

Additional supporting information for this determination and the stipulated conditions can be found in the following attachments (when checked):

- ☒ *Environmental Screening Form*
- ☒ *Preservation Assessment Form (YOSE-XXX)*
- ☐ *Wilderness Minimum Requirement Analysis*
- ☐ *Wild and Scenic River Section 7 Determination*
- ☐ Other:

### C. DECISION

*On the basis of the environmental impact information in the statutory compliance file, with which I am familiar, I am categorically excluding the described project from further NEPA analysis. No exceptional circumstances or conditions in DO12 3.5 or 3.6 apply and the action is fully described in DO12, Section 3.4.*

//R. Kevin Cann// (acting)  
Michael J. Tollefson, Superintendent

8/14/07  
Date

Original: Statutory Compliance File  
cc: Project Proponent

Attachments (2)

*The signed original of this document is on file at the Environmental Planning and Compliance Office in Yosemite National Park.*

## Environmental Screening Form

(Version: NOV06)

Compliance Tracking Number: 2007-097

PEPC Project Number: 19597

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### A. PROJECT INFORMATION

**Title:** Wawona South Fork of the Merced River Gage Installation

**Location:** Wawona, Mariposa County, California

**Project Manager:** Jim Roche, Resources Management and Science, Yosemite National Park

### B. PROJECT DESCRIPTION AND BACKGROUND

As the lowest major drainage basin in Yosemite National Park, the South Fork of the Merced River is particularly vulnerable to the effects of predicted climatic warming over the next century. Long-term river flow data are needed to effectively manage surface water withdrawals for water supply in the Wawona area (as called for in the 1985 Environmental Assessment for the reconstruction of the Wawona Water System) as well as for water supply predictions further down river outside of the park. Current water resource planning for drought conditions is based on only 10 years of data (1958-1968) and indications are that this is insufficient for understanding drought conditions in the future.

The purpose of this project is to install a permanent United States Geological Survey (USGS) type river gage downstream of Highway 41, on the South Fork of the Merced River. The gage would be located in the vicinity of a former USGS gage site, approximately 985' downstream from the Highway 41 bridge on river right. This gage would measure and transmit the full range of flows on the river. The gage would be installed and maintained by the USGS or Merced Irrigation District with oversight and quality assurance provided by the USGS.

The gage house would be a 4' by 4' by 8' tall metal building resting on a concrete pad on the top of a terrace north of the river. The building will be sided with wooden lap siding similar to that used on the Pohono gage house in Yosemite Valley and painted Wosky brown (standard NPS brown). A 24" by 36" solar panel will be mounted to the south side of the building (or the roof if less conspicuous) using anodized black metal brackets. An antenna will be mounted to a pole attached to the building extending up to 5' above the roof of the building.

Two 2" steel conduits (40' long) would extend from the gage house to the bottom of the river. The conduit would be nested into the riverbed and bank sediments and secured using metal stakes. Two or three staff plates would be installed in the river and up the bank to span the range of flows. A temporary cable tramway would be placed on the foundations of the former tramway at the site during periods of high flows for measurement of peak flows.

**Table B1 – Background Information**

	Yes	No	N/A	Explanation/Notes
1. Did NPS staff conduct a site visit? If yes, list attendees. If no, explain.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Resources Management and Science staff.
2a. Is the project providing compliance for an action associated with but not covered by an approved plan? (Identify the plan and provide a section or page citation.); OR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wawona Water Treatment Plant Environmental Assessment; Alternative NPS Water Systems; Mitigating Measures; Installation of a Proper Flow Rate Gage.
2b. Is the project in an approved plan? (Identify the plan and provide a section or page citation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2c. Is the project consistent with that plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2d. Is the Plan's CE, FONSI, or ROD current?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3a. Are there any interested or affected parties?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3b. Has a diligent effort been made to communicate with them?	<input type="checkbox"/>			
4a. Are there any affected agencies or tribes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4b. Has consultation been completed?	<input type="checkbox"/>			

**Table B2 – Environmental Screening Form Attachments (provide Attachment letter—A, B, etc.)**

	Yes	No	N/A	Explanation/Notes
1. Maps	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vicinity map; see Attachment A.
2. Drawings (e.g., design, construction)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Site Plans	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Photographs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Photos of proposed gage and gage house location; see Attachment B.
5. Non-NEPA/NHPA Approvals (Explain)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Other (Explain)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

### C. ASSESSMENT OF POTENTIAL RESOURCE EFFECTS

Are any impacts possible on the following resources?	Yes	No	N/A	Data Needed to Determine/Notes
1. Geologic resources: soils, bedrock, streambeds, etc	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gage house soil disturbance involves a 5' x 5' x 1' area; two conduit lines will be buried 2" x 40' long.
2. From geohazards	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Air quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Soundscapes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Negligible: temporary noises during gage house installation.
5. Water quality or quantity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Stream flow characteristics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. Marine or estuarine resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8. Floodplains or wetlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Land use, including occupancy, income, values, ownership, type of use	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Rare or unusual vegetation – old growth timber, riparian, alpine	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Species of special concern (plant or animal; state or federal listed or proposed for listing) or their habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Unique ecosystems, biosphere reserves, World Heritage Sites	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yosemite National Park is a World Heritage site; no historic properties would be adversely affected by implementing this project; see Section F, National Historic Preservation Act Checklist, below.
13. Unique or important wildlife or wildlife habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
14. Unique or important fish or fish habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
15. Introduce or promote non-native species (plant or animal)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Section D. Mandatory Criteria, below.
16. Recreation resources, including supply, demand, visitation, activities, etc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
17. Visitor experience, aesthetic resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
18. Cultural resources including cultural landscapes, ethnographic resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
19. Socioeconomics, including employment, occupation, income changes, tax base, infrastructure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
20. Minority and low income populations, ethnography, size, migration patterns, etc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
21. Energy resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
22. Other agency or tribal land use plans or policies	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
23. Resource, including energy, conservation potential	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
24. Urban quality, gateway communities, etc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
25. Long-term management of resources or land/resource productivity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Long-term management of resources includes monitoring river flow data.
26. Other important environment resources (e.g. geothermal, paleontological resources)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Comments, Mitigations and Conditions:**

1. None

**D. MANDATORY CRITERIA**

<b>If implemented, would the proposed action:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Data Needed to Determine/Notes</b>
1. Have material adverse effects on public health or safety?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Have adverse effects on such unique characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands; floodplains; or ecologically significant or critical areas, including those listed on the National Register of Natural Landmarks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Have highly controversial environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Be directly related to other actions with individually insignificant, but cumulatively significant, environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. Have adverse effects on species listed or proposed to be listed on the List of Endangered or Threatened Species or have adverse effects on designated Critical Habitat for these species?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Require compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Threaten to violate a federal, state, local, or tribal law or requirement imposed for the protection of the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Involve unresolved conflicts concerning alternative uses of available resources (NEPA sec. 102(2)(E))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Have a disproportionate, significant adverse effect on low-income or minority populations (EO 12898)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Restrict access to and ceremonial use of Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
14. Contribute to the introduction, continued existence, or spread of federally listed noxious weeds (Federal Noxious Weed Control Act)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Mitigated: see Condition 1, below.
15. Contribute to the introduction, continued existence, or spread of non-native invasive species or actions that may promote the introduction, growth or expansion of the range of non-native invasive species (EO 13112)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Mitigated: see Condition 1, below.
16. Require a permit from a federal, state, or local agency to proceed, unless the agency from which the permit is required agrees that a CE is appropriate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
17. Have the potential for significant impact as indicated by a federal, state, or local agency or Indian tribe?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
18. Have the potential to be controversial because of disagreement over possible environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
19. Have the potential to violate the NPS Organic Act by impairing park resources or values?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Comments, Mitigations and Conditions:**

1. Ensure that all equipment and materials brought into the park are free of non-native, invasive plants and animals, and noxious weeds. All staff working on site shall be informed of and follow best management practices for preventing the introduction and spread of non-native, invasive species as described in Division 1 Specifications, Section 1355.

### E. SPECIAL STATUS SPECIES CHECKLIST

Within the area of potential effect, are there:	Yes	No	N/A	Data Needed to Determine/Notes
1. Listed or proposed threatened or endangered species (Federal or State)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Species of special concern (Federal or State)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Park rare plants or vegetation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Potential habitat for any special-status species listed above?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If "yes" to any of the above questions, a Special-Status Species Checklist must be completed and attached.				
<b>Comments, Mitigations and Conditions:</b>				
1. None				

### F. NATIONAL HISTORIC PRESERVATION ACT CHECKLIST

Within the area of potential effect:	Yes	No	N/A	Data Needed to Determine/Notes
1. Will there be ground disturbance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gage house includes a 5' x 5' x 1' area; two conduit lines will be buried 2" x 40' long.
2. Are there any archeological sites?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wawona Archeological District
3. Are there any Native American Indian traditional cultural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Is there a historic property (a building, structure, feature, or all or any part of an archeological district or site, or a historic district or site, or any associated landscape element) that is listed or eligible for listing on the <i>National Register</i> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wawona Archeological District; the assessment of effect is "No Adverse Effect;" see Condition 1, below and the attached XXX.
5. Is there a National Historic Landmark?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Is there a structure(s) on the park's <i>List of Classified Structures</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. Is there any cultural resource requiring an evaluation of eligibility as a historic property under NHPA, Section 106, before an affect determination can be made?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. Would there be alteration of any historic property or associated landscape element covered by 2-7, above?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If "yes" to <u>any</u> of the above, then an Assessment of Effects form (YOSE-XXX) must be completed and attached.				
<b>Mitigations and Conditions:</b>				
1. Schedule a site visit with History, Architecture, and Landscape Branch and Park Archeology Office to determine specific location for equipment to avoid impact to cultural resources.				

### G. WILDERNESS ACT CHECKLIST

Is the proposed project:	Yes	No	N/A	Data Needed to Determine/Notes
1. Within designated Wilderness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Within a Potential Wilderness Addition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If "yes" to either of the above, then a Wilderness Minimum Requirements Analysis must be completed and attached.				
<b>Mitigations and Conditions:</b>				
1. None				

## H. WILD AND SCENIC RIVERS ACT CHECKLIST

Does the proposed project:	Yes	No	N/A	Data Needed to Determine/Notes
1. Fall within a wild and scenic river corridor? If "yes", name the river(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	South Fork of the Merced River
2. Fall within the bed and banks AND affect the free-flow of the river?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Potentially affect water quality of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Diminish or other wise change the values for which the river was designated as a Wild and Scenic River? If "yes", explain.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5a. Fall on a tributary of a Wild and Scenic River?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5b. If 5a is "yes", will the project affect the Wild and Scenic River corridor?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5c. If 5a is "yes", will the project unreasonably diminish scenic, recreational, or fish and wildlife values?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If "yes" to questions 2, 5b, or 5c, then a WSRA Section 7 determination must be completed and attached.				
<b>Mitigations and Conditions:</b>				
1. None				

## I. NEPA Analysis and Approval Conditions

When implemented as detailed in the project description and following all Project Mitigations and Conditions listed below, this project meets the terms and conditions of a categorical exclusion to NEPA.

### Applicable Categorical Exclusion:

DO12 3.4 C (5) - *Installation of signs, displays, and kiosks.*

### Project Mitigations and Conditions:

1. **Ensure that all equipment and materials brought into the park are free of non-native, invasive plants and animals, and noxious weeds. All staff working on site shall be informed of and follow best management practices for preventing the introduction and spread of non-native, invasive species as described in Division 1 Specifications, Section 1355.**
2. **Schedule a site visit with History, Architecture, and Landscape Branch and Park Archeology Office to determine specific location for equipment to avoid impact to cultural resources. (Resource Management and Science)**

*This project has been reviewed in accordance with the above criteria and it has been determined that the project will result in no or minimal environmental effects. Therefore, it is categorically excluded from further environmental review required under the National Environmental Policy Act. Additionally, the necessary compliance coordination has been completed with regard to the National Historic Preservation Act, the Wilderness Act, the Wild and Scenic Rivers Act, and the Endangered Species Act.*

//Renea Kennec// 8/14/07  
**Compliance Specialist** **Date**

//Mark A. Butler// 8/14/07  
**Compliance Program Manager** **Date**

//Bill Delaney// 8/14/07  
**Chief, Project Management** **Date**

*The signed original of this document is on file at  
the Environmental Planning and Compliance  
Office in Yosemite National Park.*

## Attachment A

**Error! Objects cannot be created from editing field codes.**

## Attachment B



Proposed gage pool location looking upstream. Existing staff gage used by utilities personnel is visible by boulder. The gage house would be located to the left behind the large willow and on top of the bank.



Proposed gage location: gage pool adjacent to large boulder; gage house location on top of opposite bank.

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**Error! Objects cannot be created from editing field codes.**

## Preservation Assessment Form (YOSE XXX)

(Version: AUG06)

Compliance Tracking Number: 2007-097

PEPC Project Number: 19567

### A. DESCRIPTION OF UNDERTAKING

**Title:** Wawona South Fork of the Merced River Gage Installation

**Project Location and Area of Potential Effect:**

Wawona, Mariposa County, California

Wawona South Fork

**Project Manager:** Jim Roche, Resources Management and Science, Yosemite National Park

**Project Description:** As the lowest major drainage basin in Yosemite National Park, the South Fork of the Merced River is particularly vulnerable to the effects of predicted climatic warming over the next century. Long-term river flow data are needed to effectively manage surface water withdrawals for water supply in the Wawona area (as called for in the 1985 Environmental Assessment for the reconstruction of the Wawona Water System) as well as for water supply predictions further down river outside of the park. Current water resource planning for drought conditions is based on only 10 years of data (1958-1968) and indications are that this is insufficient for understanding drought conditions in the future.

The purpose of this project is to install a permanent United States Geological Survey (USGS) type river gage downstream of Highway 41, on the South Fork of the Merced River. The gage would be located in the vicinity of a former USGS gage site, approximately 985' downstream from the Highway 41 bridge on river right. This gage would measure and transmit the full range of flows on the river. The gage would be installed and maintained by the USGS or Merced Irrigation District with oversight and quality assurance provided by the USGS.

The gage house would be a 4' by 4' by 8' tall metal building resting on a concrete pad on the top of a terrace north of the river. The building will be sided with wooden lap siding similar to that used on the Pohono gage house in Yosemite Valley and painted Wosky brown (standard NPS brown). A 24" by 36" solar panel will be mounted to the south side of the building (or the roof if less conspicuous) using anodized black metal brackets. An antenna will be mounted to a pole attached to the building extending up to 5' above the roof of the building.

Two 2" steel conduits (40' long) would extend from the gage house to the bottom of the river. The conduit would be nested into both the riverbed and bank sediments, and secured using metal stakes. Two or three staff plates would be installed in the river and up the bank to span the range of flows. A temporary cable tramway would be placed on the foundations of the former tramway at the site during periods of high flows for measurement of peak flows.

1. Attached Sensitive Information**	Yes	No	Explanation/Source/Notes
a. Maps	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CR GIS Map
b. Drawings	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Site Plans	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Photographs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Sample	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. List of Materials	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g. Other (Explain)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

\*\* Sensitive documents not for duplication or distribution beyond park management, subject matter experts, and the project statutory compliance file.

## B. DESCRIPTION OF EFFECTS

	Yes	No	N/A	Explanation/Notes
<b>1. Has the Area of Potential Effect been surveyed to identify historic properties?</b> If Yes, provide reference for the Survey (s).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	YOSE 1992D Wawona Archeological District
a. Would the proposed action affect a known historic property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>2. List all Historic Properties in the Area of Potential Effect:</b>	<b>Affected?</b> Yes	No		<b>Explanation/Notes</b>
a. Archeological Sites	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Ground disturbance.
b.	<input type="checkbox"/>	<input type="checkbox"/>		
c.	<input type="checkbox"/>	<input type="checkbox"/>		
<b>3. List resources in the Area of Potential Effect to which American Indians attach cultural and religious significance:</b>	<b>Affected?</b> Yes	No		<b>Explanation/Notes</b>
a. Unknown	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Gage and house will not impact Native American cultural and religious resources or access.
b.	<input type="checkbox"/>	<input type="checkbox"/>		
c.	<input type="checkbox"/>	<input type="checkbox"/>		
<b>4. The proposed action will:</b>	Yes	No	N/A	<b>Explanation/Note</b>
• Destroy, remove, or alter features or elements from a historic structure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Replace historic features/elements in kind	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Add nonhistoric features/elements to a historic structure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Alter or remove features/elements of a historic setting or environment (including terrain)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Add nonhistoric features/elements (including visual, audible, or atmospheric) to a historic setting or cultural landscape	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gage house will add a structure to the existing landscape.
• Disturb, destroy, or make archeological resources inaccessible, or alter associated terrain	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Project entails ground disturbance during leveling and trenching for conduit.
• Disturb, destroy, or make ethnographic resources inaccessible, or alter associated terrain	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Begin or contribute to the deterioration of historic fabric, terrain, setting, landscape elements, or archeological or ethnographic resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Involve a real property transaction affecting historic cultural properties (i.e., the exchange, sale, or lease of land or structures)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Potentially affect presently unidentified historic resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

5. Describe any measures that are incorporated as part of this project that will be taken to prevent or minimize loss or impairment of prehistoric or historic fabric, setting, integrity, or data:

Checklist prepared by: Jeannette Simons

Date: 08/07/07

Title: Historic Preservation Officer

### C. SPECIALIST SECTION

**Specialists:** Your comments here (or attached) show that you have reviewed this proposal for conformity with requirements of *National Historic Preservation Act, Section 106*; with the 1995 *Service-wide Programmatic Agreement* (if applicable); with applicable parts of the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation*; with the *NPS Management Policies* and *Cultural Resource Management Guideline*; and have given your best professional advice about this project and the issues relevant to the Section 106 process, including identification and evaluation of historic properties and further consultation needs.

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**Archeologist**

Name: **Laura Kirn**

Date: 8/8/07

Comments:

Ground Disturbance Involved      Yes: ☒      No: ☐

Assessment of Effect: **"No Adverse Effect"**

Recommended Conditions:

Signature of Archeologist: //Laura Kirn//

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**Cultural Anthropologist**

Name: **Sonny Montague**

Date:

Comments:

Assessment of Effect:

Recommended Conditions:

Signature of Cultural Anthropologist: \_\_\_\_\_

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**Curator**

Name: **Jonathan Bayless**

Date:

Comments:

Assessment of Effect:

Recommended Conditions:

Signature of Curator: \_\_\_\_\_

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**Historian**

Name: **Charles Palmer**

Date:

Comments:

Assessment of Effect:

Recommended Conditions:

Signature of Historian: \_\_\_\_\_

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**Historical Architect**

Name: **Sueann Brown**

Date: 8/8/07

Comments:

Assessment of Effect: **"No Adverse Effect"**

Recommended Conditions:

Signature of Historical Architect: //Sueann Brown//

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**Historical Landscape Architect**

Name: **Dave Humphrey**

Date: 8/8/07

Comments:

Assessment of Effect: **"No Adverse Effect"**

Recommended Conditions:

Signature of Historical Landscape Architect: //David T. Humphrey//

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**Preservation Specialist**

Name: **Rod Kennec**

Date: 8/8/07

Comments:

Assessment of Effect: **"No Effect"**

Recommended Conditions: Recommended Conditions

Signature of Preservation Specialist: //Rodney B. Kennec//

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**Native American Liaison**

Name: **Jeannette Simons**

Date:

Comments:

Assessment of Effect:

Recommended Conditions:

Signature of Native American Liaison: \_\_\_\_\_

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**<Enter Specialist Title>**

Name:

Date:

Comments:

Assessment of Effect:

Recommended Conditions:

Signature of <Enter Specialist's Title>: \_\_\_\_\_

**D. RESOURCES MANAGEMENT AND SCIENCE DIVISION AND PARK 106  
COORDINATOR REVIEWS AND RECOMMENDATIONS**

- 1. Review by specialists:** The appropriate subject-matter experts have reviewed the project and entered their comments and recommendations in Section C, above.

*The foregoing assessment is adequate: the proposed action is consistent with all applicable NPS management policies, standards, guidelines, or US DOI standards and guidelines, Rehabilitation of Historic Buildings, or others, and incorporates measures to avoid Adverse Effects.*

**Reviewed and Accepted by:**

**Signature:** //Niki Stephanie Nicholas// **Date:** 8/8/07  
Chief of Resources Management & Science Division

- 2. Compliance Requirements:** The following is the park's assessment of Section 106 process needs and requirements for this undertaking.

☐ **Standard 36 CFR Part 800 Consultation**

Consultation under 36 CFR is needed subsequent to the preparation of this form and its review by appropriate historic resource management advisors.

☒ **Undertaking related to the 1995 NPS Programmatic Agreement**

The above action meets all conditions for a programmatic exclusion under Stipulation IV. A of the 1995 NPS programmatic agreement, and is listed in Stipulation IV. B, as:

3. Installation of Environmental Monitoring Units (such as those for water and air quality).

☐ **Plan-Related Undertaking**

Consultation and review of the proposed undertaking were completed in the context of a plan review process, in accordance with the 1995 NPS programmatic agreement and 36 CFR Part 800.

☐ **Undertaking Related to Another Agreement**

The proposed undertaking is covered for Section 106 purposes under a document such as a statewide agreement written in accordance with 37 CFR Part 800.7 or counterpart regulations.

**Agreement:** <Enter Agreement Information>

☐ **Flood-Recovery Related Undertaking**

The proposed undertaking is covered for Section 106 purposes under the letter-based agreement between the NPS, the State Historic Preservation Office, and the Council for Historic Preservation for "Highwater 97" flood repair and recovery

☐ **Undertaking Related to the 1999 Yosemite Programmatic Agreement**

The proposed undertaking is covered for Section 106 purposes under the park's 1999 programmatic agreement for planning, design, construction, operations and maintenance; the undertaking meets the stipulations identified in Article VII.C.2.

**3. Assessment of Effects: No Adverse Effect**

**4. Project Stipulations and Conditions**

Following are listed any stipulations or conditions necessary to ensure that the assessment of effects above is consistent with 36 CFR 800 criteria of effect or to mitigate potential adverse effects:

- a. Schedule a site visit with History, Architecture, and Landscape Branch and Park Archeology Office to determine specific location for equipment to avoid impact to cultural resources.

**Recommended by Park Section 106 Coordinator:**

Name: **Jeannette Simons**

Title: **Historic Preservation Officer**

Signature: //Jeannette Simons// Date: 8/13/07

**E. SUPERINTENDENT'S APPROVAL**

*The proposed work conforms to NPS Management Policies and NPS-28 and I approve the recommendations, stipulations, and conditions noted in Section B of this form.*

Signature of Superintendent: //R. Kevin Cann// Date: 8/14/07  
Michael J. Tollefson

*The signed original of this document is on file at  
the Environmental Planning and Compliance  
Office in Yosemite National Park.*

## Wild and Scenic Rivers Act – Section 7 Analysis Form

(Version: AUG06)

Compliance Tracking Number: 2007-097

PEPC Project Number: 19597

### *Merced WILD AND SCENIC RIVER*

#### *Wawona South Fork Of The Merced River Gage Installation, Merced River, Yosemite National Park*

The Merced River in Yosemite National Park is a component of the National Wild and Scenic Rivers System. Projects that involve construction in the bed or on the banks of the Merced River are water resources projects that require review under Section 7 of the Wild and Scenic Rivers Act. The installation of a permanent river gage that is within the bed and banks of the South Fork of the Merced Wild and Scenic River; therefore, this gage installation must not intrude upon or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area on the date the Merced River was designated as a component of the Wild and Scenic Rivers System.

### A. PROJECT INFORMATION

**Title:** Wawona South Fork of the Merced River Gage Installation

**Location:** Wawona, Mariposa County, California

**Project Manager:** Jim Roche, Resources Management and Science, Yosemite National Park

**Project Description:** As the lowest major drainage basin in Yosemite National Park, the South Fork of the Merced River is particularly vulnerable to the effects of predicted climatic warming over the next century. Long-term river flow data are needed to effectively manage surface water withdrawals for water supply in the Wawona area (as called for in the 1985 Environmental Assessment for the reconstruction of the Wawona Water System) as well as for water supply predictions further down river outside of the park. Current water resource planning for drought conditions is based on only 10 years of data (1958-1968) and indications are that this is insufficient for understanding drought conditions in the future.

The purpose of this project is to install a permanent United States Geological Survey (USGS) type river gage downstream of Highway 41, on the South Fork of the Merced River. The gage would be located in the vicinity of a former USGS gage site, approximately 985' downstream from the Highway 41 bridge on river right. This gage would measure and transmit the full range of flows on the river. The gage would be installed and maintained by the USGS or Merced Irrigation District with oversight and quality assurance provided by the USGS.

The gage house would be a 4' by 4' by 8' tall metal building resting on a concrete pad on the top of a terrace north of the river. The building will be sided with wooden lap siding similar to that used on the Pohono gage house in Yosemite Valley and painted Wosky brown (standard NPS brown). A 24" by 36" solar panel will be mounted to the south side of the building (or the roof if less conspicuous) using anodized black metal brackets. An antenna will be mounted to a pole attached to the building extending up to 5' above the roof of the building.

Two 2" steel conduits (40' long) would extend from the gage house to the bottom of the river. The conduit would be nested into the riverbed and bank sediments and secured using metal stakes. Two or three staff plates would be installed in the river and up the bank to span the range of flows. A temporary cable tramway would be placed on the foundations of the former tramway at the site during periods of high flows for measurement of peak flows.

## ANALYSIS OF POTENTIAL IMPACTS

### Impacts and Mitigations:

*This section identifies each potential impact, emphasizing those affecting river “Outstandingly Remarkable Values”, and discusses its relationship to and potential impact on the river and how each impact will be avoided or mitigated. Be thorough, providing appropriate notations about the extent (e.g., quantities of materials affected or released, number of individuals affected, square meters affected), duration (e.g., temporary—give length of time, or permanent), and intensity (none, negligible, minor, moderate, major) of the potential impact.*

The primary impacts resulting from the permanent installation of the gage house would be to the scenic values of this segment of the Merced River. The installation would be visually obtrusive and would result in minor impacts to the scenic values. The gage house needs to be constructed high enough on the river bank to avoid inundation by peak flows. This location could be inundated by extreme flows. The gage house would be 8' tall and would be similar in appearance to the Pohono gage house in Yosemite Valley. The total impacted area of the gage house would be approximately 16 square feet with an antenna mounted on a pole extending 5' from the roof and a solar panel mounted on the side of the gage house. The gage house would be visually obtrusive from Highway 140. Installation of the gage house constitutes the minimum installation necessary to manage surface water withdrawals in the Wawona area and obtain the long-term river flow data needed to plan for drought conditions in the future.

The following mitigations would be applied to this project:

1. A site visit will be conducted prior to the installation to identify the location of the above ground structure and to determine if archeological monitoring is necessary.
2. The building's appearance would be similar to that of existing Merced River gage houses.

### Summary of Impacts

**Table 1. Project Impacts on the River's Free Flow and Water Quality**

Section 7 Considerations	Short Term Impacts	Long Term Impacts
<b>Free flow characteristics</b> <ul style="list-style-type: none"> <li>• Channel width/depth</li> <li>• Vertical drop</li> <li>• Channel form</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Water Quality</b> <ul style="list-style-type: none"> <li>• Turbidity</li> <li>• Temperature</li> <li>• Nutrient availability</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• None</li> </ul>

**Table 2. Project Impacts on the Outstandingly Remarkable Values for which the River was Designated Wild and Scenic**

River ORVs	Project Impacts
<i>Scenic</i>	<ul style="list-style-type: none"> <li>• This project adds a small permanent structure in an otherwise fairly undeveloped river segment. The structure will be visible from Highway 140. This constitutes a minor impact to scenic qualities of this river segment.</li> </ul>
<i>Geologic Processes/Conditions</i>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<i>Recreation</i>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<i>Biological</i>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<i>Cultural</i>	<ul style="list-style-type: none"> <li>• The structure's appearance would be consistent with existing gage houses on the Merced River. Final structure placement will be approved by the History, Architecture and Landscape staff.</li> </ul>
<i>Hydrologic Processes</i>	<ul style="list-style-type: none"> <li>• None</li> </ul>

## B. SECTION 7 DETERMINATION

Although within the bed and banks and designated corridor of the Merced Wild and Scenic River the proposed project will not intrude on or unreasonably diminish the scenic, geologic process, recreational, biological, cultural, or hydrologic process values present in the area on the date the Merced River was designated a component of the Wild and Scenic Rivers System.

//Heather McKenny//

Recommended by Heather McKenny, Environmental Compliance Specialist

8/13/07

date

//R. Kevin Cann//

Approved by Michael Tollefson, Superintendent

8/14/07

date

*The signed original of this document is on file at  
the Environmental Planning and Compliance  
Office in Yosemite National Park.*