



# 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: Greg Stock, Project Manager, Resources Management and Science, Yosemite National Park  
San Francisco Public Utilities Commission, Project Manager

From: Superintendent, Yosemite National Park

Subject: Notice to Proceed, 2007-050 Poopenaut Valley, Studying Hydrologic Impacts from O'Shaughnessy Dam

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 E (6) - *Non-destructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research, and monitoring activities.*

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

4/11/07  
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: 2007-050

PEPC Project Number: 18176

### A. PROJECT INFORMATION

**Title:** Poopenaut Valley, Studying Hydrologic Impacts from O'Shaugnessy Dam

**Location:** Hetch Hetchy, Tuolumne County, California

**Project Manager:** Greg Stock, Resources Management and Science, Yosemite National Park

**Project Manager:** San Francisco Public Utilities Commission

### 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 analysis under Categorical Exclusion: DO12 3.4 E (6) - *Non-destructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research, and monitoring activities.*

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//  
Michael J. Tollefson, Superintendent

4/11/07  
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: 2007-050

PEPC Project Number: 18176

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### **A. PROJECT INFORMATION**

**Title:** Poopenaut Valley, Studying Hydrologic Impacts from O' Shaughnessy Dam

**Location:** Hetch Hetchy, Tuolumne County, California

**Project Manager:** Greg Stock, Resources Management and Science, Yosemite National Park

**Project Manager:** San Francisco Public Utilities Commission

### **B. PROJECT DESCRIPTION AND BACKGROUND**

Yosemite National Park Division of Resources Management and Science staff, in cooperation with scientists from McBain & Trush, Inc., propose to characterize impacts on hydrologic processes in Poopenaut Valley and the immediate vicinity (Fig. 1) downstream of O'Shaughnessy Dam. There is also a smaller component of the study that would focus on the area downstream of Eleanor Dam. Impoundment of Tuolumne River water behind these dams, and diversion of water from the reservoirs, may be adversely affecting hydrologic processes downstream of the dams. This, in turn, may be affecting the aquatic, meadow, and riparian ecosystems that depend on certain hydrologic conditions.

Poopenaut Valley has been identified as the most ecological sensitive area downstream of these dams, and is the main area of research. Quantifying the effects of O'Shaughnessy on hydrologic processes in Poopenaut Valley would be done by installing up to 20 groundwater monitoring wells along two transects across the meadow area in the downstream end of the valley. Soil profiles and vegetation plots established in association with the groundwater wells would help to delineate wetlands. In addition, river stage and water temperature loggers would be installed where each transect crosses the Tuolumne River; a similar instrument would also be installed in the seasonal pond on the north side of Poopenaut Valley to record the seasonal fluctuation of water surface levels and water temperature. One of the stage recorders would be a more sophisticated Campbell Scientific datalogger, capable of measuring water turbidity, which requires a small solar panel. A staff plate would be installed near one of the river stage recorders to measure river stage visually. Finally, two time lapse cameras would be installed in Poopenaut Valley to record changes in habitat availability (i.e., extent of seasonal flooding). All instruments would be located in designated wilderness or in a potential wilderness addition. The instruments would be tracked in a GIS and removed within five years; after removal there would be no trace of these installations. Yosemite RMS staff will coordinate closely with RMS archeologists and landscape architects to avoid or minimize impacts to cultural resources from the proposed work.

Contractors McBain & Trush, Inc., also propose to study sediment transport immediately downstream of O'Shaughnessy and Lake Eleanor dams. Below O'Shaughnessy Dam these studies would not take place in wilderness, but below Eleanor dam they would. The sediment transport study would have two components: (1) placing tracer rocks of different diameters in the riverbed to determine critical thresholds for mobilizing sediment, and (2) installing scour cores to document river scour depth. Locally-derived metamorphic rocks, which can be easily distinguished from the granitic cobbles presently in the riverbed, would be used as tracer rocks. Scour cores would consist of six-inch diameter holes excavated into sediment in the riverbed and filled with quartzite gravel and surveyed to a vertical datum. Following a high flow event, the scour hole is excavated down to the quartzite gravel, providing the depth of maximum scour and subsequent fill.

Overall, hydrologic investigations would focus on reaches of the river bounded by meadows (such as those in Poopenaut Valley), as these are areas most sensitive to changes in hydrology and sediment flux. River stage recorders and flow data from an existing USGS gaging station below the dam permit the construction of stage-duration relationships and identification of bankfull discharge under current management of the reservoir. These relationships, coupled with detailed topographic surveying of the river channel, would allow comparison with modeled pre-dam flow regimes. Ultimately, these results would be tied to biological and vegetation surveys in the adjacent habitats to investigate possible impacts to these ecosystems from the dams.

**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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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 checked="" type="checkbox"/>	
2c. Is the project consistent with that plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2d. Is the Plan's CE, FONSI, or ROD current?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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: 2 required (vicinity map & site map)	<input checked="" type="checkbox"/>			Vicinity map; see Attachment A.
2. Drawings (e.g., design, construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Instrumentation drawing; see Attachment B.
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 instrumentation; see Attachment C.
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"/>	Soil disturbance includes a maximum of 2" in diameter and 6' deep.
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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"/>	Mitigated; 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Negligible; visitor experience could possibly be visually impacted; this temporary project is in a remote site and impacts will be mitigated by camouflaging the wells and instrumentation.
18. Cultural resources including cultural landscapes, ethnographic resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Negligible; the assessment of effect is "No Effect;" see Section F, National Historic Preservation Act Checklist and attached XXX.
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"/>	The data collected would assist in the long-term management of Tuolumne River water resources.
26. Other important environment resources (e.g. geothermal, paleontological resources)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Comments, Mitigations and Conditions:</b>				
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"/>	Mitigated: see Condition 1, below.
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"/>	The assessment of effect is "No Adverse Effect;" see Section F, National Historic Preservation Act Checklist and attached XXX.
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"/>	The assessment of effect is "No Adverse Effect;" see Section F, National Historic Preservation Act Checklist and attached XXX.
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 2, 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 2, 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. Develop and submit a Safety Plan or a Job Hazard Analysis to the park Safety Officer (Roger Farmer, 379-1079) for review and approval at least two weeks prior to beginning any project work.
2. All equipment, materials, and instruments brought to the site from outside the park must be thoroughly cleared of any foreign debris that could harbor plant or animal propagules.

### 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"/>	Installation of wells requires a maximum of 2" in diameter and 6' deep.
2. Are there any archeological sites?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The assessment of effect is "No Adverse Effect;" see the attached XXX.
3. Are there any Native American Indian traditional cultural resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>	The historic properties will not be effected by this project; the assessment of effect is "No Adverse Effect;" see 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The assessment of effect is "No Adverse Effect;" see the attached XXX.
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. None				

### G. WILDERNESS ACT CHECKLIST

Is the proposed project:	Yes	No	N/A	Data Needed to Determine/Notes
1. Within designated Wilderness?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Within a Potential Wilderness Addition?	<input checked="" type="checkbox"/>	<input 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"/>	Tuolumne 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 E (6) - Non-destructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research, and monitoring activities.

### Project Mitigations and Conditions:

1. All equipment, materials, and instruments brought to the site from outside the park must be thoroughly cleared of any foreign debris that could harbor plant or animal propagules. (Environmental Planning and Compliance)
2. Develop and submit a Safety Plan or a Job Hazard Analysis to the park Safety Officer (Roger Farmer, 379-1079) for review and approval at least two weeks prior to beginning any project work. (Safety Office)

*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.*

//Elexis Mayer// 3/28/07  
Compliance Specialist Date

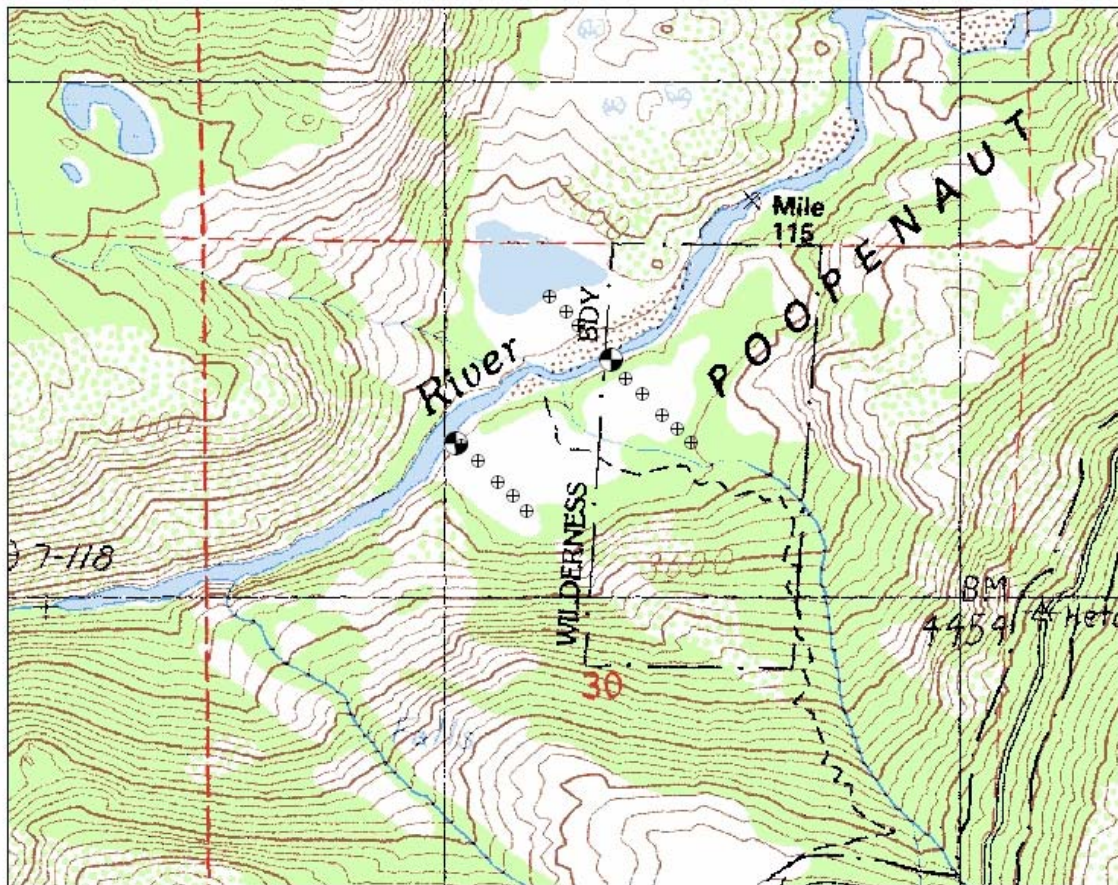
//Mark A Butler// 4/5/07  
Compliance Program Manager Date

//Bill Delaney// 4/8/07  
Chief, Project Management Date

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

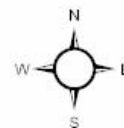
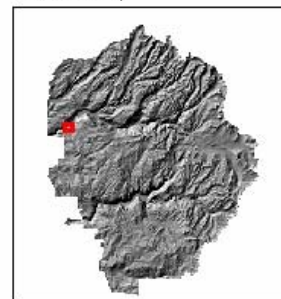
*the Environmental Planning and Compliance  
Office in Yosemite National Park.*

## Attachment A



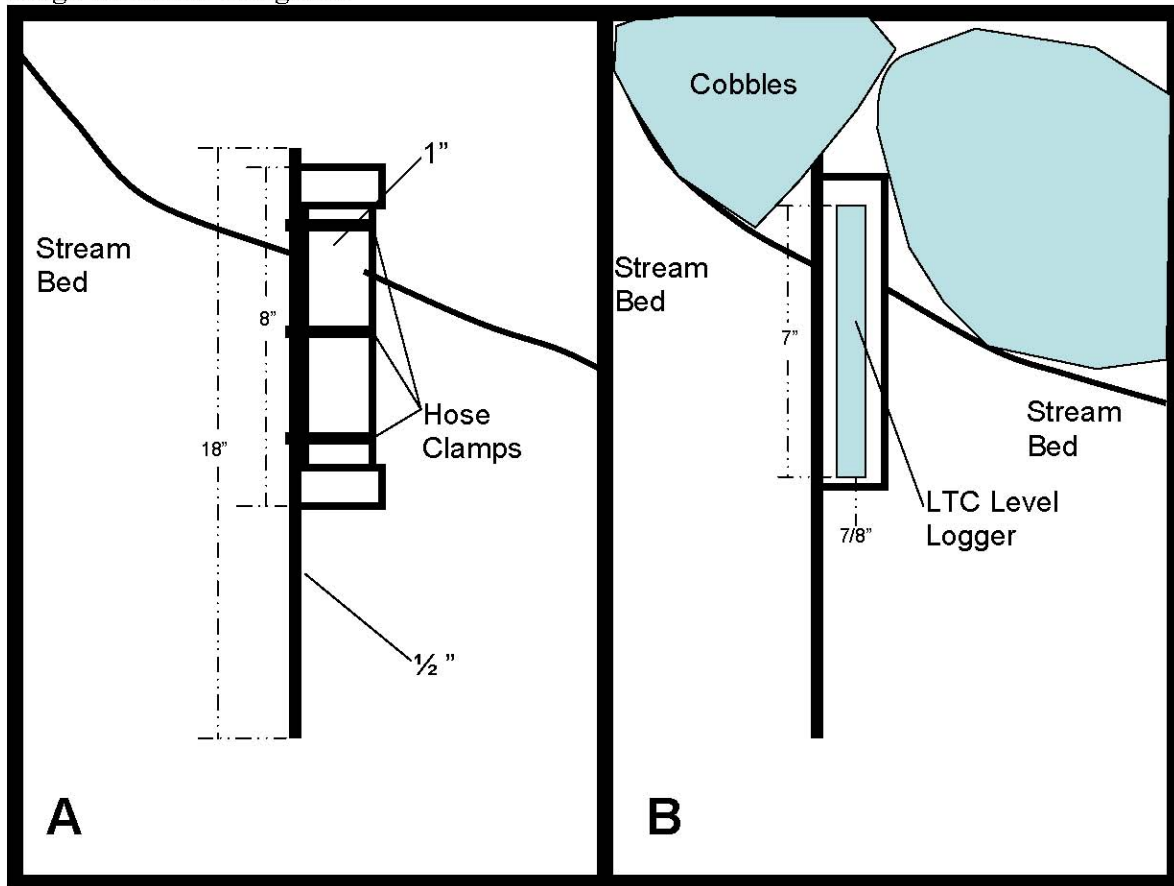
- ⊕ Approximate well locations
- ⊙ Approximate Stage Recorder Locations (Western location would include the crest stage gage)

Location Map



## Attachment B

Stage Recorder Diagram



Drawing 1 - Instrumentation



## Attachment C



**Groundwater Well**



**River Staff Plate**





## Preservation Assessment Form (YOSE XXX)

(Version: AUG06)

Compliance Tracking Number: 2007-050

PEPC Project Number: 18176

### A. DESCRIPTION OF UNDERTAKING

**Title:** Poopenaut Valley, Studying Hydrologic Impacts from O'Shaughnessy Dam

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

Poopenaut Valley, Tuolumne County, California

Tuolumne River Corridor

**Project Manager:** Greg Stock, Resources Management and Science, Yosemite National Park

**Project Description:** Yosemite National Park Division of Resources Management and Science staff, in cooperation with scientists from McBain & Trush, Inc., propose to characterize impacts on hydrologic processes in Poopenaut Valley and the immediate vicinity (Fig. 1) downstream of O'Shaughnessy Dam. There is also a smaller component of the study that would focus on the area downstream of Eleanor Dam. Impoundment of Tuolumne River water behind these dams, and diversion of water from the reservoirs, may be adversely affecting hydrologic processes downstream of the dams. This, in turn, may be affecting the aquatic, meadow, and riparian ecosystems that depend on certain hydrologic conditions.

Poopenaut Valley has been identified as the most ecological sensitive area downstream of these dams, and is the main area of research. Quantifying the effects of O'Shaughnessy on hydrologic processes in Poopenaut Valley would be done by installing up to 20 groundwater monitoring wells along two transects across the meadow area in the downstream end of the valley. Soil profiles and vegetation plots established in association with the groundwater wells would help to delineate wetlands. In addition, river stage and water temperature loggers would be installed where each transect crosses the Tuolumne River; a similar instrument would also be installed in the seasonal pond on the north side of Poopenaut Valley to record the seasonal fluctuation of water surface levels and water temperature. One of the stage recorders would be a more sophisticated Campbell Scientific datalogger, capable of measuring water turbidity, which requires a small solar panel. A staff plate would be installed near one of the river stage recorders to measure river stage visually. Finally, two time lapse cameras would be installed in Poopenaut Valley to record changes in habitat availability (i.e., extent of seasonal flooding). All instruments would be located in designated wilderness or in a potential wilderness addition. The instruments would be tracked in a GIS and removed within five years; after removal there would be no trace of these installations. Yosemite RMS staff will coordinate closely with RMS archeologists and landscape architects to avoid or minimize impacts to cultural resources from the proposed work.

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to a vertical datum. Following a high flow event, the scour hole is excavated down to the quartzite gravel, providing the depth of maximum scour and subsequent fill.

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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 2002R, 1997
a. Would the proposed action affect a known historic property?	<input type="checkbox"/>	<input checked="" 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. CA-TUO-3988, 3994	<input type="checkbox"/>	<input checked="" type="checkbox"/>		project will avoid
b. PP55 9065 46	<input type="checkbox"/>	<input checked="" type="checkbox"/>		project will avoid
c. 2 classified structures	<input type="checkbox"/>	<input checked="" type="checkbox"/>		project will avoid
<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"/>		
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"/>	monitoring equipment
• Disturb, destroy, or make archeological resources inaccessible, or alter associated terrain	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• 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 checked="" 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:**

Yosemite RMS staff will coordinate with closely with RMS archeologists and landscape architects to avoid or minimize impacts to cultural resources from the proposed work.

**Checklist prepared by:** Jeannette Simons

**Date:** 03/19/07

**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: 3/20/07

Comments:

Ground Disturbance Involved

Yes: ☐ No: ☐

Assessment of 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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**Historic Architect**

Name: **Sueann Brown**

Date: 3/20/07

Comments:

Assessment of Effect:

Recommended Conditions:

Signature of Historic Architect: //Charles Palmer// for Sueann Brown

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**Historical Landscape Architect**

Name: **Dave Humphrey**

Date: 3/20/07

Comments:

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

Recommended Conditions:

Signature of Historic Landscape Architect: //Daniel Scheible// for David Humphrey

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**Preservation Specialist**

Name: **Rod Kennec**

Date:

Comments:

Assessment of Effect: <**Choose Effect**> or write it here >>

Recommended Conditions: Recommended Conditions

Signature of Preservation Specialist: \_\_\_\_\_

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**Native American Liaison**

Name: **Jeannette Simons**

Date:

Comments:

Assessment of Effect: <**Choose Effect**> or write it here >>

Recommended Conditions:

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

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**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//  
Chief of Resources Management & Science Division

**Date:** 3/20/07

- 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. None

**Recommended by Park Section 106 Coordinator:**

Name: **Jeannette Simons**

Title: **Historic Preservation Officer**

Signature: //Jeannette Simons// Date: 4/4/07

**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: 4/11/07  
Michael J. Tollefson

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