



**United States Department of the Interior**  
**NATIONAL PARK SERVICE**

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

IN REPLY REFER TO:

L7615(YOSE-PM)

Memorandum

To: Jim Roche, Yosemite National Park

From: Superintendent, Yosemite National Park

Subject: NEPA and NHPA Clearance: 2010-069 Yosemite Valley Groundwater Assessment (32476)

The Leadership Team has reviewed the proposed project and completed its environmental assessment documentation, and we have determined that there:

- Will not be any effect on threatened, endangered, or rare species and/or their critical habitat.
- Will not be any effect on historical, cultural, or archeological resources; and
- Will not be serious or long-term undesirable environmental or visual effects.

The subject proposed project, therefore, is now cleared for all NEPA and NHPA compliance requirements as presented above. Project plans and specifications are approved and construction or project implementation can commence.

For the proposed project actions to be within compliance requirements during construction and/or project implementation, the following mitigations must be adhered to:

- Ensure that important cultural use resources are avoided.

\\ Charles Cuvelier \\ -acting  
Don L. Neubacher

Enclosure (with attachments)

cc: Statutory Compliance File



National Park Service  
U.S. Department of the Interior

Yosemite National Park  
Date: 07/26/2010

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## Categorical Exclusion Form

**Project:** 2010-069 Yosemite Valley Groundwater Assessment

**PEPC Project Number:** 32476

**Project Description:** The project will utilize standard hydrogeologic investigation and groundwater modeling techniques to investigate potential impacts on wetlands and the Merced River from groundwater withdrawal for public water supply in Yosemite Valley. Much of the work could be done through a Cooperative Ecosystem Studies Unit agreement with Dr. Graham Fogg and a student at UC Davis. The primary project area is centered on the three water supply wells near the confluence of Yosemite Creek with the Merced River and potentially affected wetlands in Cook's, Sentinel, and Leidig meadows.

Hydrogeology of the system will be characterized through analysis of existing well log data, review of available literature on Yosemite Valley subsurface geology, and monitoring of shallow groundwater levels and stream flows between approximately August 2010 and June 2011. At least two pumping tests will be conducted on the existing supply wells to ascertain effects of pumping on stream flow and shallow groundwater levels (September - October 2010). Water table fluctuations near the pumping wells, streams, and wetlands will be measured in shallow piezometers (2 inches in diameter and up to 50 feet deep) installed with the UC Davis Department of Land, Air, and Water Resources GeoProbe drill rig (August 2010). Depending on characteristics of the shallow sediments, between 5 and 10 piezometers will be installed. Stream flow will be gauged by continuously monitoring stream stage and development of stage-discharge relationships for selected locations in the channel (August 2010 - July 2011). Both groundwater and surface water temperatures will be monitored with automated data-loggers to help trace penetration of surface waters into the groundwater and vice versa. All installations will be left in place for a period of 5 years to facilitate further research and monitoring beyond the scope of the present project. Installations will be removed by September 2015 using a portable hand-operated jacking system. A conceptual numerical model of the system will be constructed to assist in the interpretation of the field data and to help estimate the effects of the pumping.

Sensitive cultural and natural resources will be avoided through consultation with the park archeologist, botanist, and wildlife biologist. Access to drill sites will be over hardened surfaces or using specially designed fiberglass panels to distribute weight over a larger area in sensitive soils.

To the extent permitted by the existing and collected data over the period of the project, the first ever hydrogeologic characterization of a portion of Yosemite Valley will be produced. This will include subsurface geology, geology, distribution of aquifers and confining beds (aquitards), estimates of pumping, and, if necessary, alternative ways of managing the groundwater pumpage so as to minimize impacts. Furthermore, potential future effects of pumping during lower flow periods caused by climate change will be estimated.

**Project Location:**

- Mariposa County, California

**Mitigations:**

- Ensure that important cultural use resources are avoided.

**Describe the category used to exclude action from further NEPA analysis and indicate the number of the category (see Section 3-4 of DO-12):**

- C.10 Installation of wells, comfort stations and pit toilets in areas of existing use and in developed areas.

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 Section 3-6 apply, and the action is fully described in Section 3-4 of DO-12.

Park Superintendent \\ Charles Cuvelier \\ -acting

Date 8-3-10



National Park Service  
U.S. Department of the Interior

Yosemite National Park  
Date: 07/26/2010

## ENVIRONMENTAL SCREENING FORM (ESF)

### DO-12 APPENDIX 1

**Date Form Initiated:** 07/26/2010

Updated May 2007 - per 2004 Departmental Manual revisions and proposed Director's Order 12 changes

#### A. PROJECT INFORMATION

**Park Name:** Yosemite National Park  
**Project Title:** 2010-069 Yosemite Valley Groundwater Assessment  
**PEPC Project Number:** 32476  
**Project Type:** Resource Impact Study (OTHER)  
**Project Location:** **County, State:** Mariposa, California **District:** CA19  
**Project Leader:** Jim Roche

**Preliminary drawings attached?** Yes

**Is project a hot topic?** (controversial or sensitive issues that should be brought to attention of Regional Director) No

#### B. RESOURCE EFFECTS TO CONSIDER:

Identify potential effects to the following physical, natural, or cultural resources	No Effect	Negligible Effects	Minor Effects	Exceeds Minor Effects	Data Needed to Determine/Notes
1. Geologic resources – soils, bedrock, streambeds, etc.		Negligible			The piezometers measure two inches in diameter and will be installed up to 50 feet deep.
2. From geohazards	No				
3. Air quality		Negligible			This project includes exhaust emissions from a small direct push rig for up to 15 days.
4. Soundscapes		Negligible			The direct push rig will be in operation for 15 days.
5. Water quality or quantity	No				
6. Streamflow characteristics	No				
7. Marine or estuarine	No				

<b>Identify potential effects to the following physical, natural, or cultural resources</b>	<b>No Effect</b>	<b>Negligible Effects</b>	<b>Minor Effects</b>	<b>Exceeds Minor Effects</b>	<b>Data Needed to Determine/Notes</b>
resources					
8. Floodplains or wetlands		Negligible			The piezometer installation is a standard hydrogeologic investigation and groundwater modeling technique that is measuring the potential impacts to wetlands from the groundwater withdrawal for public water supply.
9. Land use, including occupancy, income, values, ownership, type of use	No				
10. Rare or unusual vegetation – old growth timber, riparian, alpine	No				
11. Species of special concern (plant or animal; state or federal listed or proposed for listing) or their habitat	No				
12. Unique ecosystems, biosphere reserves, World Heritage Sites	No				Yosemite National Park is a World Heritage Site.
13. Unique or important wildlife or wildlife habitat	No				
14. Unique or important fish or fish habitat	No				
15. Introduce or promote non-native species (plant or animal)	No				The direct push rig will be cleaned prior to entering the park.
16. Recreation resources, including supply, demand, visitation, activities, etc.	No				
17. Visitor experience, aesthetic resources	No				
18. Archeological resources		Negligible			Yosemite Valley Archeological District.
19. Prehistoric/historic structure	No				
20. Cultural landscapes		Negligible			Yosemite Valley Historic District
21. Ethnographic resources		Negligible			
22. Museum collections (objects, specimens, and archival and manuscript collections)	No				

<b>Identify potential effects to the following physical, natural, or cultural resources</b>	<b>No Effect</b>	<b>Negligible Effects</b>	<b>Minor Effects</b>	<b>Exceeds Minor Effects</b>	<b>Data Needed to Determine/Notes</b>
23. Socioeconomics, including employment, occupation, income changes, tax base, infrastructure	No				
24. Minority and low income populations, ethnography, size, migration patterns, etc.	No				
25. Energy resources	No				
26. Other agency or tribal land use plans or policies	No				
27. Resource, including energy, conservation potential, sustainability	No				
28. Urban quality, gateway communities, etc.	No				
29. Long-term management of resources or land/resource productivity	No				This investigation will provide data to aid future determinations about water usage in Yosemite Valley.
30. Other important environment resources (e.g. geothermal, paleontological resources)?	No				

#### **D. MANDATORY CRITERIA**

<b>Mandatory Criteria: If implemented, would the proposal:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Comment or Data Needed to Determine</b>
A. Have significant impacts on public health or safety?		No		
B. Have significant impacts on such natural resources and unique geographic 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 (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?		No		
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?		No		

<b>Mandatory Criteria: If implemented, would the proposal:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Comment or Data Needed to Determine</b>
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?		No		
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?		No		
F. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?		No		
G. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office?		No		
H. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species?		No		
I. Violate a federal law, or a state, local, or tribal law or requirement imposed for the protection of the environment?		No		
J. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898)?		No		
K. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007)?		No		
L. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?		No		

For the purpose of interpreting these procedures within the NPS, any action that has the potential to violate the NPS Organic Act by impairing park resources or values would constitute an action that triggers the DOI exception for actions that threaten to violate a federal law for protection of the environment.

#### **D. OTHER INFORMATION**

Did personnel conduct a site visit? No

Is the project in an approved plan such as a General Management Plan or an Implementation Plan with an accompanying NEPA document? No

Are there any interested or affected agencies or parties? No

Has consultation with all affected agencies or tribes been completed? No

Are there any connected, cumulative, or similar actions as part of the proposed action? (e.g., other development projects in area or identified in GMP, adequate/available utilities to accomplish project)? No

#### E. INTERDISCIPLINARY TEAM SIGNATORIES

<u>Interdisciplinary Team</u>	<u>Field of Expertise</u>
Don L. Neubacher	Superintendent
Kathleen Morse	Chief of Planning
Mark Butler	Chief of Project Management
Katariina Tuovinen	Chief of Administration Management
Ed Walls	Chief of Facilities Management
Niki Nicholas	Chief of Resources Management & Science
Marty Nielson	Chief of Business and Revenue Management
Tom Medema	Chief of Interpretation and Education
Charles Cuvelier	Chief of Visitor and Resource Protection
Jim Roche	Project Leader
Elexis Mayer	Environmental Planning and Compliance Program Manager
Jeannette Simons	NHPA Specialist
Renea Kennec	NEPA Specialist

#### F. SUPERVISORY SIGNATORY

Recommended:

Compliance Specialists	Date
<u>\\ Renea Kennec \\</u> Compliance Specialist – Renea Kennec	<u>8/3/10</u>
<u>\\ Susan Clark \\ - acting</u> Compliance Program Manager – Elexis Mayer	<u>8/3/10</u>
<u>\\Randall J Fong \\ - acting</u> Chief, Project Management – Mark Butler	<u>8/3/10</u>

Approved:

Superintendent	Date
<u>\\ Charles Cuvelier \\ -acting</u> Don L. Neubacher	<u>8/3/10</u>





National Park Service  
U.S. Department of the Interior

Yosemite National Park  
Date: 07/26/2010

## PARK ESF ADDENDUM

**Today's Date:** July 26, 2010

### PROJECT INFORMATION

**Park Name:** Yosemite National Park  
**Project Title:** Yosemite Valley Groundwater Assessment  
**PEPC Project Number:** 32476  
**Project Type:** Resource Impact Study (OTHER)  
**Project Location:** **County, State:** Mariposa, California **District:** CA19  
**Project Leader:** Jim Roche

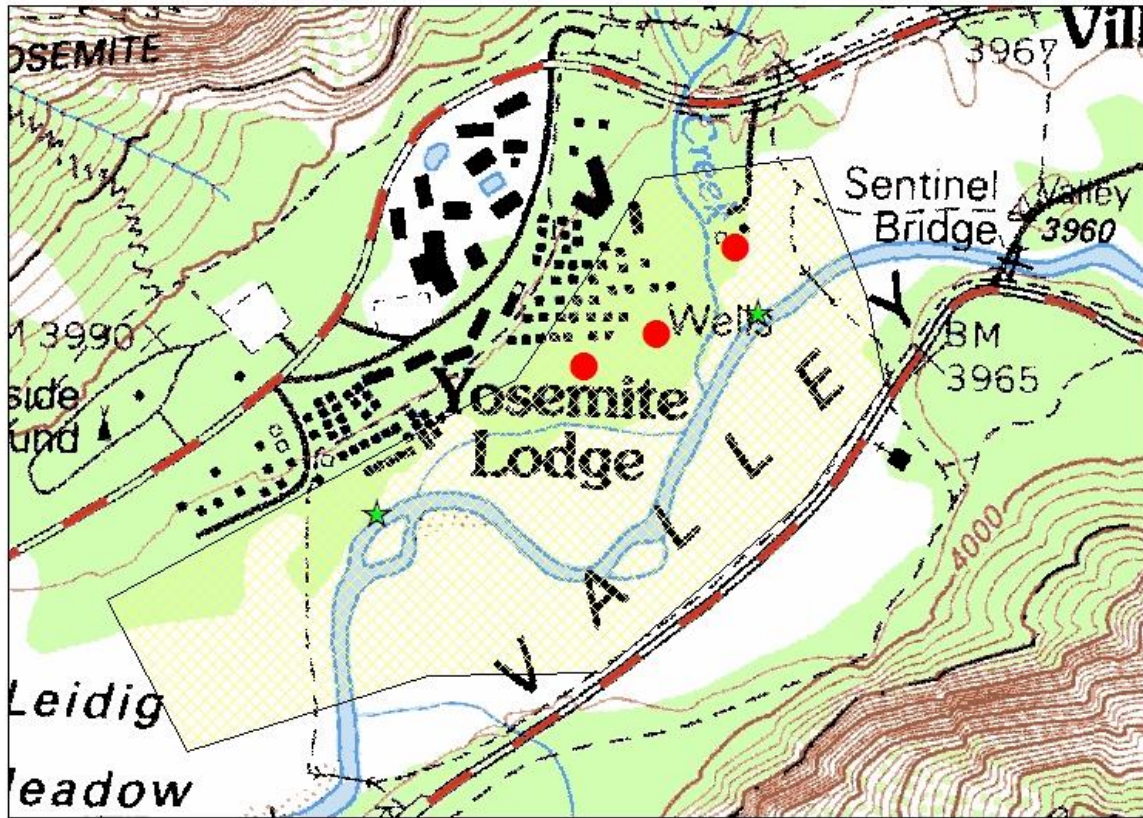
### PARK ESF ADDENDUM QUESTIONS & ANSWERS

ESF Addendum Questions	Yes	No	N/A	Data Needed to Determine/Notes
<b>SPECIAL STATUS SPECIES CHECKLIST</b>				
1. Listed or proposed threatened or endangered species (Federal or State)?		No		
2. Species of special concern (Federal or State)?		No		
3. Park rare plants or vegetation?		No		
4. Potential habitat for any special-status species listed above?		No		
<b>NATIONAL HISTORIC PRESERVATION ACT CHECKLIST</b>				
5. Entail ground disturbance?	Yes			The piezometers measure two inches in diameter and will be installed up to 50 feet.
6. Are any archeological or ethnographic sites located within the area of potential effect?	Yes			Yosemite Valley Archeological District; the assessment of effect is "No Historic Properties Affected."
7. Entail alteration of a historic structure or cultural landscape?		No		

8. Has a National Register form been completed?		No		
9. Are there any structures on the park's List of Classified Structures in the area of potential effect?		No		
<b>WILD AND SCENIC RIVERS ACT CHECKLIST</b>				
10. Fall within a wild and scenic river corridor? (Name the river corridor)	Yes			Merced River.
11. Fall within the bed and banks AND will affect the free-flow of the river?	Yes			
12. Have the possibility of affecting water quality of the area?		No		
13. Remain consistent with its river segment classification?	Yes			
14. Fall on a tributary of a Wild and Scenic River?	Yes			Yosemite Creek.
15. Will the project encroach or intrude upon the Wild and Scenic River corridor?		No		
16. Will the project unreasonably diminish scenic, recreational, or fish and wildlife values?		No		
17. Consistent with the provisions in the Merced River Plan Settlement Agreement?	Yes			
<b>WILDERNESS ACT CHECKLIST</b>				
18. Within designated Wilderness?		No		
19. Within a Potential Wilderness Addition?		No		



## Sitemap: Yosemite Valley Groundwater Assessment



● Production Well

▨ Area of proposed monitoring well placement

★ Proposed River Stage Recorder Locations

310 155 0 310 Meters



Project Location within  
Yosemite National Park







Piezometer Example

River Stage Recorder – typical installation







## ASSESSMENT OF ACTIONS HAVING AN EFFECT ON CULTURAL RESOURCES

### A. DESCRIPTION OF UNDERTAKING

1. **Park:** Yosemite National Park    **Park district (optional):** CA19

#### 2. Project Description:

a. **Project Name:** 2010-069 Yosemite Valley Groundwater Assessment

b. **Date:** July 26, 2010

c. **PEPC project ID number:** 32476

#### 3. Has the area of potential effects been surveyed to identify cultural resources?

       No

  X   Yes, Source or reference: Yosemite Valley Archeological District; Yosemite Valley Historic District; American Indian Yosemite Valley Traditional Cultural Property

  X   Check here if no known cultural resources will be affected. (If this is because area has been disturbed, please explain or attach additional information to show the disturbance was so extensive as to preclude intact cultural deposits.)

#### 4. Potentially Affected Resources:

Cultural landscapes affected?

Name and numbers: Yosemite Valley Historic District

NR status: 1 - Listed in Register and documented

Ethnographic resources affected?

Name and number: Yosemite Valley American Indian Traditional Cultural Property

NR status: 8 - Within a Register-eligible district

#### 5. The proposed action will: (check as many as apply)

  No   Destroy, remove, or alter features/elements from a historic structure

  No   Replace historic features/elements in kind

  No   Add non-historic features/elements to a historic structure

  No   Alter or remove features/elements of a historic setting or environment (inc. terrain)

  Yes   Add non-historic features/elements (inc. visual, audible, or atmospheric) to a historic setting or cultural landscape

  No   Disturb, destroy, or make archeological resources inaccessible

  No   Disturb, destroy, or make ethnographic resources inaccessible

Yes Potentially affect presently unidentified cultural resources  
No Begin or contribute to deterioration of historic features, terrain, setting, landscape elements, or archeological or ethnographic resources  
No Involve a real property transaction (exchange, sale, or lease of land or structures)  
   Other (please specify)

**6. Measures to prevent or minimize loss or impairment of historic/prehistoric properties:**  
(Remember that setting, location, and use may be relevant.)

No Assessment of Effect mitigations identified.

**7. Supporting Study Data:**

(Attach if feasible; if action is in a plan, EA or EIS, give name and project or page number.)

**8. Attachments:**

☐ Maps ☐ Archeological survey, if applicable ☐ Drawings ☐ Specifications ☐ Photographs  
☐ Scope of Work ☐ Site plan ☐ List of Materials ☐ Samples ☐ Other:

**Prepared by:** Renea Kennec **Date:** July 26, 2010 **Title:** Environmental Protection  
Specialist **Telephone:** 209-379-1038

**B. REVIEWS BY CULTURAL RESOURCE SPECIALISTS**

The park 106 coordinator requested review by the park's cultural resource specialist/advisors as indicated by check-off boxes or as follows:

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☒ Archeologist  
Name: Laura Kirn  
Date: 07/26/2010  
Comments:

*Check if project does not involve ground disturbance* ☐  
Assessment of Effect: ☒ No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse  
Effect ☐ Streamlined Review  
Recommendations for conditions or stipulations:

Doc Method:

No Potential to Cause Effects [800.3(a)(1)]

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☒ Historical Landscape Architect  
Name: David Humphrey  
Date: 07/22/2010  
Comments:

*Check if project does not involve ground disturbance* ☐  
Assessment of Effect: ☒ No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse  
Effect ☐ Streamlined Review  
Recommendations for conditions or stipulations:



Doc Method:

No Potential to Cause Effects [800.3(a)(1)]

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No Reviews From: Curator, Historical Architect, Historian, 106 Advisor, Other Advisor, Anthropologist

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### C. PARK SECTION 106 COORDINATOR'S REVIEW AND RECOMMENDATIONS

#### 1. Assessment of Effect:

\_\_\_\_\_ No Historic Properties Affected   X   No Adverse Effect \_\_\_\_\_ Adverse Effect

#### 2. Compliance requirements:

##### [ ] A. STANDARD 36 CFR PART 800 CONSULTATION

Further consultation under 36 CFR Part 800 is needed.

##### [ ] B. STREAMLINED REVIEW UNDER THE 2008 SERVICEWIDE PROGRAMMATIC AGREEMENT (PA)

The above action meets all conditions for a streamlined review under section III of the 2008 Servicewide PA for Section 106 compliance.

##### APPLICABLE STREAMLINED REVIEW Criteria

(Specify 1-16 of the list of streamlined review criteria.)

##### [ ] C. PLAN-RELATED UNDERTAKING

Consultation and review of the proposed undertaking were completed in the context of a plan review process, in accordance with the 2008 Servicewide PA and 36 CFR Part 800.

Specify plan/EA/EIS: \_\_\_\_\_

##### [ X ] D. UNDERTAKING RELATED TO ANOTHER AGREEMENT

The proposed undertaking is covered for Section 106 purposes under another document such as a statewide agreement established in accord with 36 CFR 800.7 or counterpart regulations.

Specify: 1999A Programmatic Agreement

##### [ ] E. COMPLIANCE REQUIREMENTS SATISFIED BY USE OF NEPA

Documentation is required for the preparation of an EA/FONSI or an EIS/ROD has been developed and used so as also to meet the requirements of 36 CFR 800.3 through 800.6

##### [ ] F. No Potential to Cause Effects [800.3(a)(1)]

##### [ ] G. STIPULATIONS/CONDITIONS

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

**Recommended by Park Section 106 coordinator:**

Signature of Historic Preservation Officer \_\_\_\_\_ \\ Renea Kennec \\ -acting  
Date: 8-3-10

**D. SUPERINTENDENT'S APPROVAL**

The proposed work conforms to the NPS *Management Policies* and *Cultural Resource Management Guideline*, and I have reviewed and approve the recommendations, stipulations, or conditions noted in Section C of this form.

Signature of Superintendent \_\_\_\_\_ \\ Charles Cuvelier \\ -acting  
Date: 8-3-2010