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L7615(YOSE-PM)

# United States Department of the Interior

## NATIONAL PARK SERVICE

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

### Memorandum

**To:** Matthew Barmann, Project Manager, Yosemite National Park

**From:** Superintendent, Yosemite National Park

**Subject:** NEPA and NHPA Clearance: 2011-028 Tuolumne Meadows Installation of Meadow Monitoring Equipment for Ecological Restoration (37752)

The Executive Leadership Team has reviewed the proposed project/action 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.
- 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 and/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:

- No mitigations identified.

For complete compliance information see PEPC Project 37752.

//Charles Cuvelier// acting

Don L. Neubacher

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 Form

**Project:** 2011-028 Tuolumne Meadows Installation of Meadow Monitoring Equipment for Ecological Restoration

**PEPC Project Number:** 37752

**Project Description:** This project will explore different restoration scenarios at Tuolumne Meadows. Research that has been underway in recent years has demonstrated that soil thickness, soil moisture retention characteristics, and soil forming processes play a critical role in determining meadow vegetation's vulnerability to hydrologic change and its amenability to restoration. However, before a restoration strategy can be implemented, a process based understanding of the interactions between vegetation condition and soil maintenance and formation must be developed and better characterized in the system so processes that inhibit and encourage meadow recovery can be identified.

To answer these research questions the following field methods will be employed over three years:

- Continue monitoring of groundwater levels in the well network that has existed in Tuolumne Meadows since 2006.
- Measure sediment deposition around 24 individual willows by placing three clay pads (30cm x 30cm x 2 cm), sediment discs (4" diameter), and scour chains at the six associated willow study sites in the Tuolumne River corridor.
- Quantify the carbon budget at 10 sites using a temporarily placed C flux chamber (50 cm x 50 cm x 40 cm) set on fixed PVC 'collars' and monumented with two pieces of rebar.
- Collect 4-inch diameter soil samples (0.5 liter volume) at 10 sites at depths of 10 and 30 cm.
- Clip vascular plants at the soil surface in 10 plots (0.5 m<sup>2</sup> each) per meadow each year.
- Install 10 in-growth root bags each spring into 10 plots.
- Install 30 small mammal herbivory exclosures at 10 sites (associated with wells) by burying wire mesh on a vertical orientation at a ~20 to 40 cm depths around plots of ~2 meters square; 20 of these wire exclosures (with a flat black color) will be raised 10 cm above and encapsulate the meadow surface.
- Seed and plant seedlings of two sedges (*Carex subnigricans*) and (*Carex scopulorum*); seed lodgepole pine.
- Collect willow seeds with 30 sticky traps (8" x 11" plywood boards covered weekly with Tanglefoot during the observed period of seed rain) at six sites; traps are to be mounted approximately 0.5 meter above the ground surface, with a hardware cloth covering them to prevent incidental capture of birds and small animals.
- Plant dormant willow stem cuttings, each 18 inches long, into a full range of bare sandbar habitats/elevations; approximately of the cuttings will be within twelve exclosures (commercial black deer fence, 7 m x 7 m x 1.5 m height); fencing will be removed for the winter, but t-posts will remain.

Installed equipment will be signed identifying it as research material. The researchers will present details of the project to Tuolumne NPS interpretive staff in order that they are better able to inform the public of the investigation activities.

**Project Locations:**

Tuolumne County, CA

**Mitigations:**

- No mitigations identified.

**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):**

E.5 Nondestructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research, and monitoring activities.

**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 (e.g. all boxes in the ESF are marked "no") or conditions in Section 3-6 apply, and the action is fully described in Section 3-4 of DO-12.**

**Superintendent** //Charles Cuvelier// acting **Date** 8/4/11

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National Park Service  
U.S. Department of the Interior

Yosemite National Park  
Date: 08/02/2011

## ENVIRONMENTAL SCREENING FORM (ESF)

### DO-12 APPENDIX 1

Date Form Initiated: 08/02/2011

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:** 2011-028 Tuolumne Meadows Installation of Meadow Monitoring Equipment for Ecological Restoration  
**PEPC Project Number:** 37752  
**Project Type:** Permit - Research (RP)  
**Project Location:**  
**County, State:** Tuolumne, California  
**Project Leader:** Matthew Barmann

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			Four inch diameter soil samples will be collected at depths of 10 - 30 cm deep. Ten in-growth root bags will be installed to the depth of 30 cm. Ten below ground exclosures buried 20-40 centimeters deep and 10 meters wide to prevent small mammals from burrowing will be installed.
2. From geohazards	No				
3. Air quality	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>
4. Soundscapes	No				
5. Water quality or quantity	No				
6. Streamflow characteristics	No				
7. Marine or estuarine resources	No				
8. Floodplains or wetlands	No				
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				

<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>
15. Introduce or promote non-native species (plant or animal)	No				
16. Recreation resources, including supply, demand, visitation, activities, etc.	No				
17. Visitor experience, aesthetic resources	No				
18. Archeological resources	No				
19. Prehistoric/historic structure	No				
20. Cultural landscapes	No				
21. Ethnographic resources	No				
22. Museum collections (objects, specimens, and archival and manuscript collections)	No				
23. Socioeconomics, including employment, occupation, income changes, tax base, infrastructure	No				
24. Minority and low income populations,	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>
ethnography, size, migration patterns, etc.					
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				
30. Other important environment resources (e.g. geothermal, paleontological resources)?	No				

### **C. 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		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>
drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas?				
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?		No		
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		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>
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)?				

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**

1. Are personnel preparing this form familiar with the site? Yes
2. Did personnel conduct a site visit? No
3. Is the project in an approved plan such as a General Management Plan or an Implementation Plan with an accompanying NEPA document? No
4. Are there any interested or affected agencies or parties? No
5. Has consultation with all affected agencies or tribes been completed? N/A
6. 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**

<b>Interdisciplinary Team</b>	<b>Field of Expertise</b>
Don L. Neubacher	Superintendent
Kathleen Morse	Chief of Planning
Randy Fong	Chief of Project Management
Dale St. Vincent	Acting Chief of Administration Management
Ed Walls	Chief of Facilities Management
Joe Meyer	Acting 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
Matthew Barmann	Project Leader
Elexis Mayer	Environmental Planning and Compliance Program Manager
Elexis Mayer	Acting Historic Preservation Officer
Renea Kennec	NEPA Specialist

## H. SUPERVISORY SIGNATORY

*Based on the environmental impact information contained in the statutory compliance file and in this environmental screening form, environmental documentation for this stage of the subject project is complete.*

### Recommended:

Compliance Specialists	Date
<u>//Renea Kennec//</u> Compliance Specialist – Renea Kennec	<u>8/3/11</u>
<u>//Elexis Mayer//</u> Compliance Program Manager – Elexis Mayer	<u>8/3/11</u>
<u>//Randy Fong//</u> Chief, Project Management – Randy Fong	<u>8/3/11</u>

### Approved:

Superintendent	Date
<u>//Don L. Neubacher// acting</u> Don L. Neubacher	<u>8/4/11</u>

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## PARK ESF ADDENDUM

Today's Date: August 2, 2011

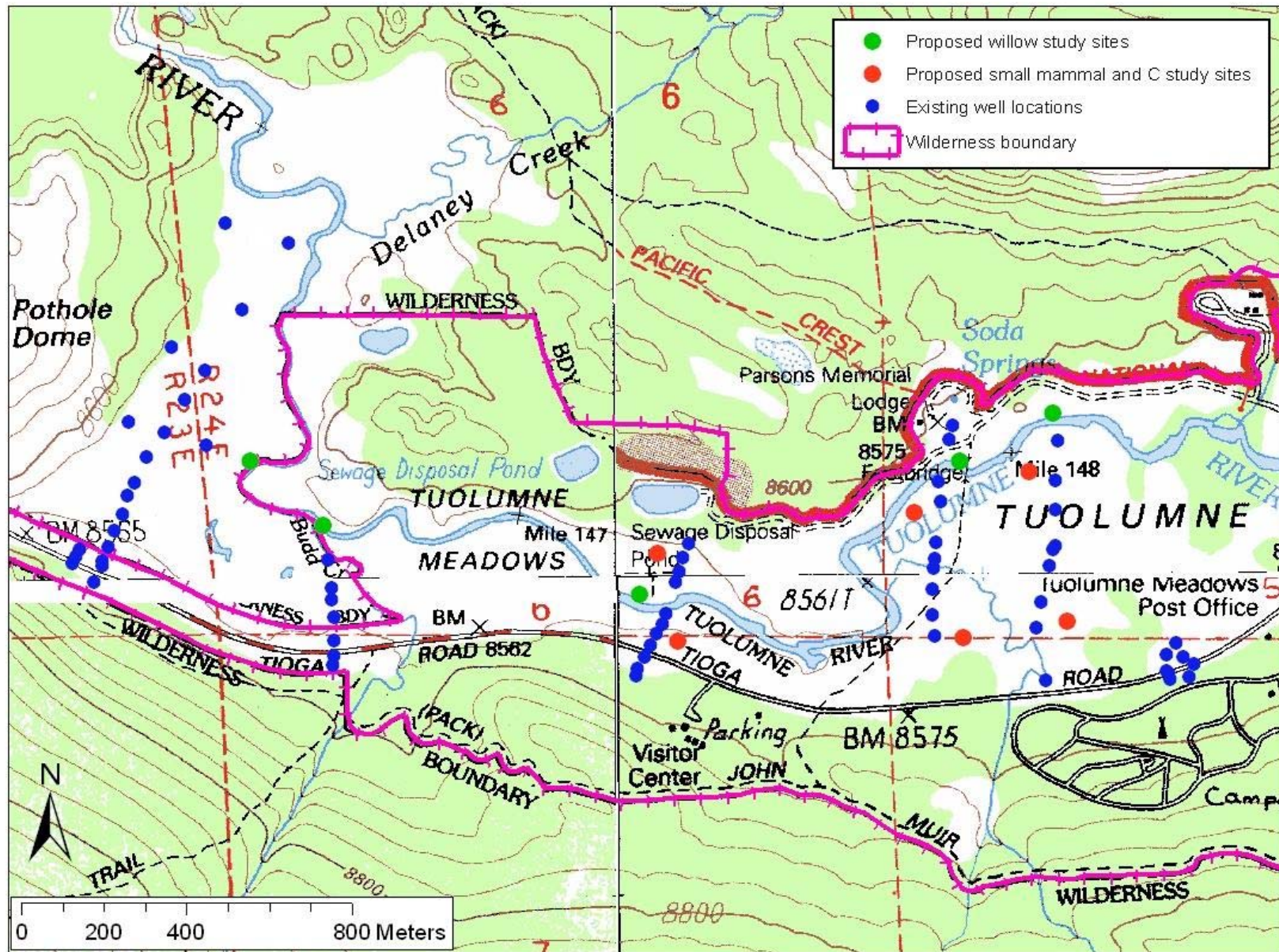
### PROJECT INFORMATION

**Park Name:** Yosemite National Park  
**Project Title:** 2011-028 Tuolumne Meadows Installation of Meadow Monitoring Equipment for Ecological Restoration  
**PEPC Project Number:** 37752  
**Project Type:** Permit - Research (RP)  
**Project Location:**  
**County, State:** Tuolumne, California  
**Project Leader:** Matthew Barmann

### PARK ESF ADDENDUM QUESTIONS & ANSWERS

ESF Addendum Questions	Yes	No	N/A	Data Needed to Determine/Notes
SPECIAL STATUS SPECIES CHECKLIST				
Listed or proposed threatened or endangered species (Federal or State)?		No		
Species of special concern (Federal or State)?		No		
Park rare plants or vegetation?		No		
Potential habitat for any special-status species listed above?		No		
NATIONAL HISTORIC PRESERVATION ACT CHECKLIST				
Entail ground disturbance?	Yes			Four inch diameter soil samples will be collected at depths of 10 - 30 cm deep. Ten in-growth root bags will be installed to the depth of 30 cm. Ten below ground exclosures buried 20-40 centimeters deep and 10 meters wide to prevent small mammals from burrowing will be installed.

<b>ESF Addendum Questions</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Data Needed to Determine/Notes</b>
Are any archeological or ethnographic sites located within the area of potential effect?		No		
Entail alteration of a historic structure or cultural landscape?		No		
Has a National Register form been completed?		No		
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>				
Fall within a wild and scenic river corridor?	Yes			Tuolumne River.
Fall within the bed and banks AND will affect the free-flow of the river?		No		
Have the possibility of affecting water quality of the area?		No		
Remain consistent with its river segment classification?	Yes			
Fall on a tributary of a Wild and Scenic River?		No		
Will the project encroach or intrude upon the Wild and Scenic River corridor?		No		
Will the project unreasonably diminish scenic, recreational, or fish and wildlife values?		No		
Consistent with the provisions in the Merced River Plan Settlement Agreement?			NA	
<b>WILDERNESS ACT CHECKLIST</b>				
Within designated Wilderness?		No		
Within a Potential Wilderness Addition?		No		





# ASSESSMENT OF ACTIONS HAVING AN EFFECT ON CULTURAL RESOURCES

## A. DESCRIPTION OF UNDERTAKING

1. **Park:** Yosemite National Park

2. **Project Description:**

**Project Name:** 2011-028 Tuolumne Meadows Installation of Meadow Monitoring Equipment for Ecological Restoration

**Prepared by:** Renea Kennec

**Date Prepared:** 08/02/2011

**Telephone:** 209-379-1038

**PEPC Project Number:** 37752

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

☐ No

☒ Yes

Source or reference: Tuolumne Meadows Archeological District.

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 Resource(s):**

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)

☐ No 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. Supporting Study Data:

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

### 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: Sonny Montague

Date: 07/13/2011

*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: Project manager will ensure that archeological sites are avoided during implementation, following direction of Archeologist. If unanticipated archeological resources are encountered during implementation, project manager will stop work immediately and contact Archeologist.

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☒ Anthropologist

Name: Jennifer Hardin

Date: 07/14/2011

*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: 08/01/2011

Comments: None.

*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: None.

Doc Method: Park Specific Programmatic Agreement

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

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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. Documentation Method:

☐ 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:

☒ 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: 1999 Programmatic Agreement

☐ E. COMBINED NEPA/NHPA Document

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. Memo to SHPO/THPO

☐ H. Memo to ACHP

3. Additional Consulting Parties Information:

Additional Consulting Parties: No

4. Stipulations and 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.

5. Mitigations/Treatment Measures:



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.

**D. RECOMMENDED BY PARK SECTION 106 COORDINATOR:**

Acting Historic Preservation Officer

Elexis Mayer //Elexis J. Mayer// Date 8/3/11

**E. 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

Superintendent: //Charles Cuvelier// acting Date: 8/4/11  
Don L. Neubacher

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Yosemite National Park.*