

Categorical Exclusion

(Version: AUG06)

Compliance Tracking Number: 2006-093

PEPC Project Number: 16542

A. PROJECT INFORMATION

Title: Crane Flat Lookout Permanent Climate Monitoring Station

Location: Crane Flat, Mariposa County, California

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

Project Manager: Michael Changery, National Oceanic and Atmospheric Administration

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 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*
- ☐ *Park Management Terms and Conditions*
- ☐ 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.

//MJTollefson//
Michael J. Tollefson

10/20/06
Date

Original: Statutory Compliance File
cc: Project Proponent

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

Attachments (2)



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
Michael Changery, Project Manager, National Oceanic and Atmospheric Administration

From: Superintendent, Yosemite National Park

Subject: Notice to Proceed, 2006-093 Crane Flat Lookout, Permanent Climate Monitoring
Station 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 the conditions stipulated in the enclosed *Categorical Exclusion Form* and associated documents when implementing this project.

//MJTollefson//
Michael J. Tollefson

10/20/06
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.*

Environmental Screening Form

(Version: AUG06)

Compliance Tracking Number: 2006-093

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Location: Crane Flat, Mariposa County, California

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

Project Manager: Michael Changery, National Oceanic and Atmospheric Administration

B. PROJECT DESCRIPTION AND BACKGROUND

The purpose of this project is to install a high-quality, permanent weather station that would be part of a national network of 250 similar stations. This station would be maintained and operated by the National Oceanic and Atmospheric Administration (NOAA) for a period of 50-100 years.

Description: The weather station would consist of sensors placed on an instrument tower up to 10 feet above the surface of the ground, a battery/power supply box (4.5 feet high), and a Geonor precipitation gauge (5 feet high) installed in an area 60 feet by 60 feet. A satellite transmission antenna would be mounted on the instrument tower and would not extend above the top of the tower. Each component would be anchored by concrete pads that will require excavation of holes of 1) 2 feet in diameter by 3 feet deep, 2) 3 feet in diameter by 5 feet deep, and 3) 2 feet in diameter by 3 feet deep. Installation of a shelter surrounding the rain gauge would require up to eight holes for fence posts. Trenches 6 inches wide by 18 inches deep would be required to route conduit between the instruments and the AC power at the helibase (approximately 150 feet). Vegetation would be removed in the immediate area of each component and otherwise maintained as low cover as is the current practice. Sensors would consist of three temperature sensors each enclosed in aspirated solar radiation shields, a cup anemometer (wind speed), a pyranometer (solar energy), and an infrared (IR) thermometer (ground surface temperature). A relative humidity sensor will be added upon completion of the evaluation period (one year). The Climate Reference Network (CRN) parameters to be measured are: 1) air temperature, 2) precipitation, 3) solar radiation (incoming solar energy at the surface of the earth), 4) wind speed, 5) ground surface temperature (IR), and 6) relative humidity.

Precipitation data, recorded every fifteen minutes, and the other hourly observations will be collected and stored in a data logger attached to the tower. These data will be transmitted within a few minutes after each hour via a satellite transmitter for further delivery to the National Climatic Data Center (NCDC), Asheville, NC. Summary of the Day (SOD) statistics will be computed operationally at the NCDC. The instrument system is designed with the capacity for future expansion to accommodate additional sensors, such as soil moisture, soil temperature, atmospheric pressure, and wind speed/direction at the standard 10-meter height. The design allows for future additions of sensors on the tower without disrupting the physical site.

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"/>	History, Architect and Landscape 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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Site Plans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Proposed site locations; see Attachment B.
4. Photographs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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"/>	Excavation involving 3 concrete pads up to 3 feet in diameter and 5 feet 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Negligible: a 60' x 60' area of undeveloped land adjacent to the Crane Flat Fire Lookout would be dedicated to a Climate Reference Network Weather Station.
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; see Section F, the National Historic Preservation Act Checklist, and attached XXX.
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"/>	Negligible: see Condition 1, 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Crane Flat Lookout Historic District; the assessment of effect is "No Adverse Effect;" see Section F, the 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 climate monitoring station would provide climate information useful for long-term resource management.
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

If implemented, would the proposed action:	Yes	No	N/A	Data Needed to Determine/Notes
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"/>	The assessment of effect is "No Adverse Effect;" see Section F, the 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, the 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"/>	Mitigated: see Condition 1, below.
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"/>	
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:

- 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. (Environmental Planning and Compliance)

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.				
Comments, Mitigations and Conditions:				
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"/>	The assessment of archeological effect is "No Effect;" see the attached XXX.
2. Are there any archeological sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Are there any Native American Indian traditional cultural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Is the project within the boundary of an archeological or historic landscape or district?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Crane Flat Lookout Historic District; the assessment of effect is "No Adverse Effect."
5a. Is there a National Historic Landmark?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5b. 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"/>	
5c. Is there a historic property with a DOE and concurrence by the SHPO or a completed National Register form?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5d. Is there a cultural property requiring review under NHPA, Section 106?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Would there be alteration of a structure or cultural landscape covered by 5a-d, above?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If "yes" to any of the above, then an Assessment of Effects form (YOSE-XXX) must be completed and attached.				
Mitigations and Conditions:				
1.				

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.				
Mitigations and Conditions:				
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Fall within the bed and banks AND affect the free-flow of the river?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Potentially affect water quality of the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Remain consistent with its river segment classification?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Protect and enhance river ORVs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6a. Fall within the River Protection Overlay?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6b. If "Yes", is it consistent with conditions of the River Protection Overlay?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Remain consistent with the areas Management Zoning?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8a. Fall on a tributary of a Wild and Scenic River?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8b. If 9a is "Yes", will the project affect the Wild and Scenic River corridor?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8c. If 9a is "Yes", will the project unreasonably diminish scenic, recreational, or fish and wildlife values?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Change the level of use within the river corridor? If "Yes", explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If "yes" to questions 2, 9b, or 9c, then a WSRA Section 7 determination must be completed and attached.				

Mitigations and Conditions:

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 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.
(Environmental Planning and Compliance)**

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.

<i>//GWColliver//</i>	<i>9/21/06</i>
Compliance Specialist	Date

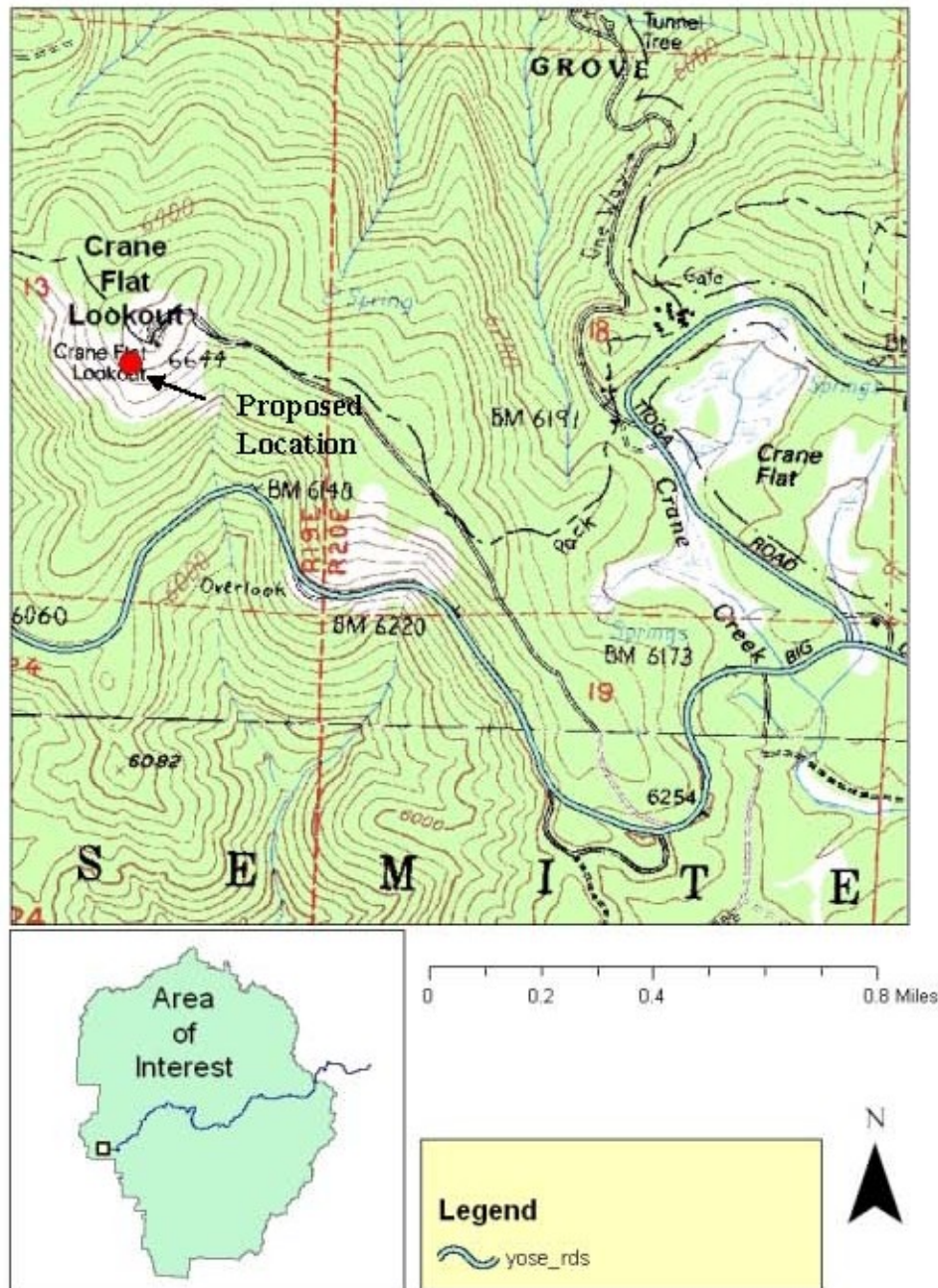
<i>//Mark A Butler//</i>	<i>9/21/06</i>
Compliance Program Manager	Date

<i>//Bill Delaney//</i>	<i>10/17/06</i>
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

Location and Site Maps:
Proposed location of Climate Reference Network Station at Crane Flat Lookout



Attachment B

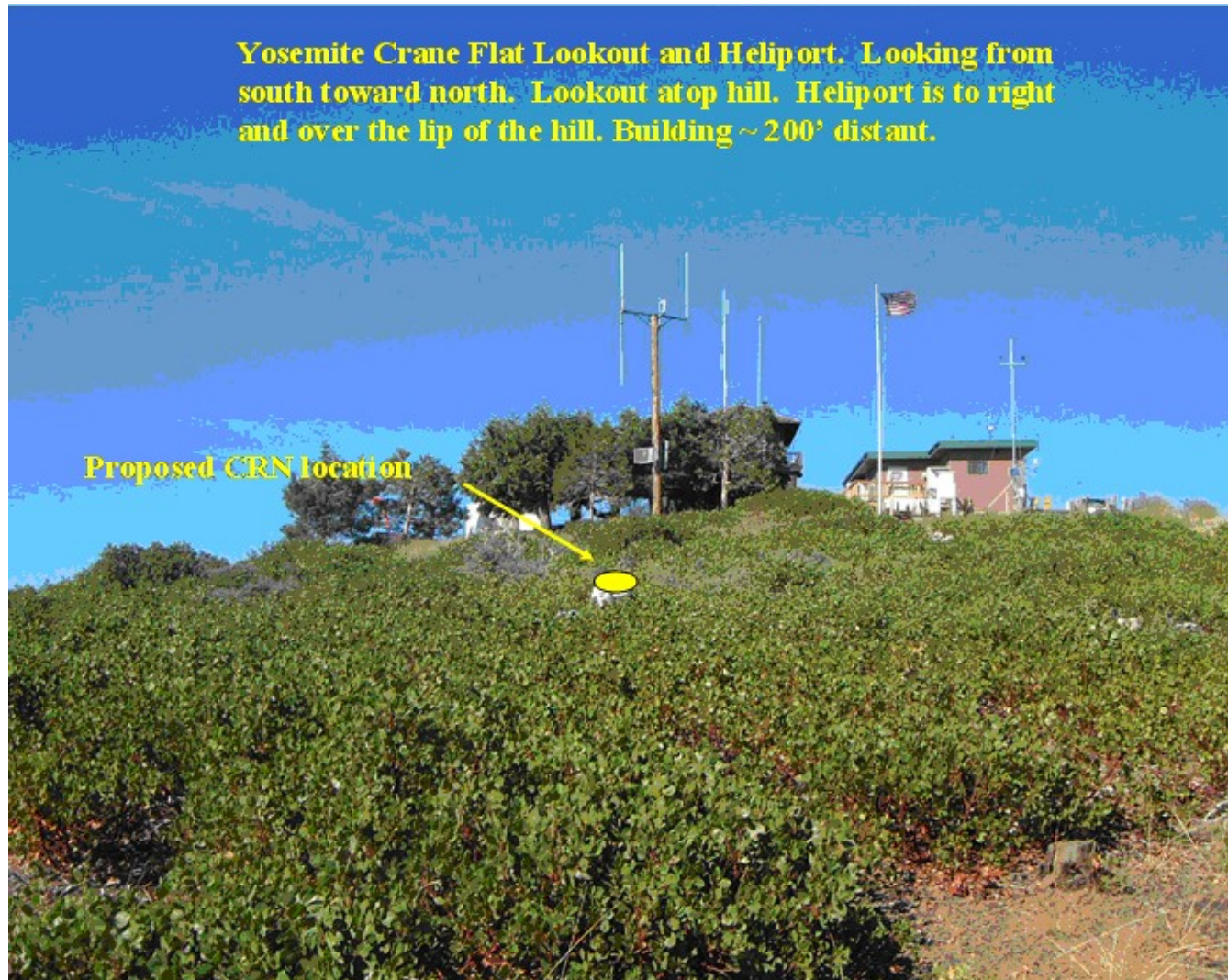


Photo 1 Looking uphill across proposed site to the Crane Flat Fire Lookout

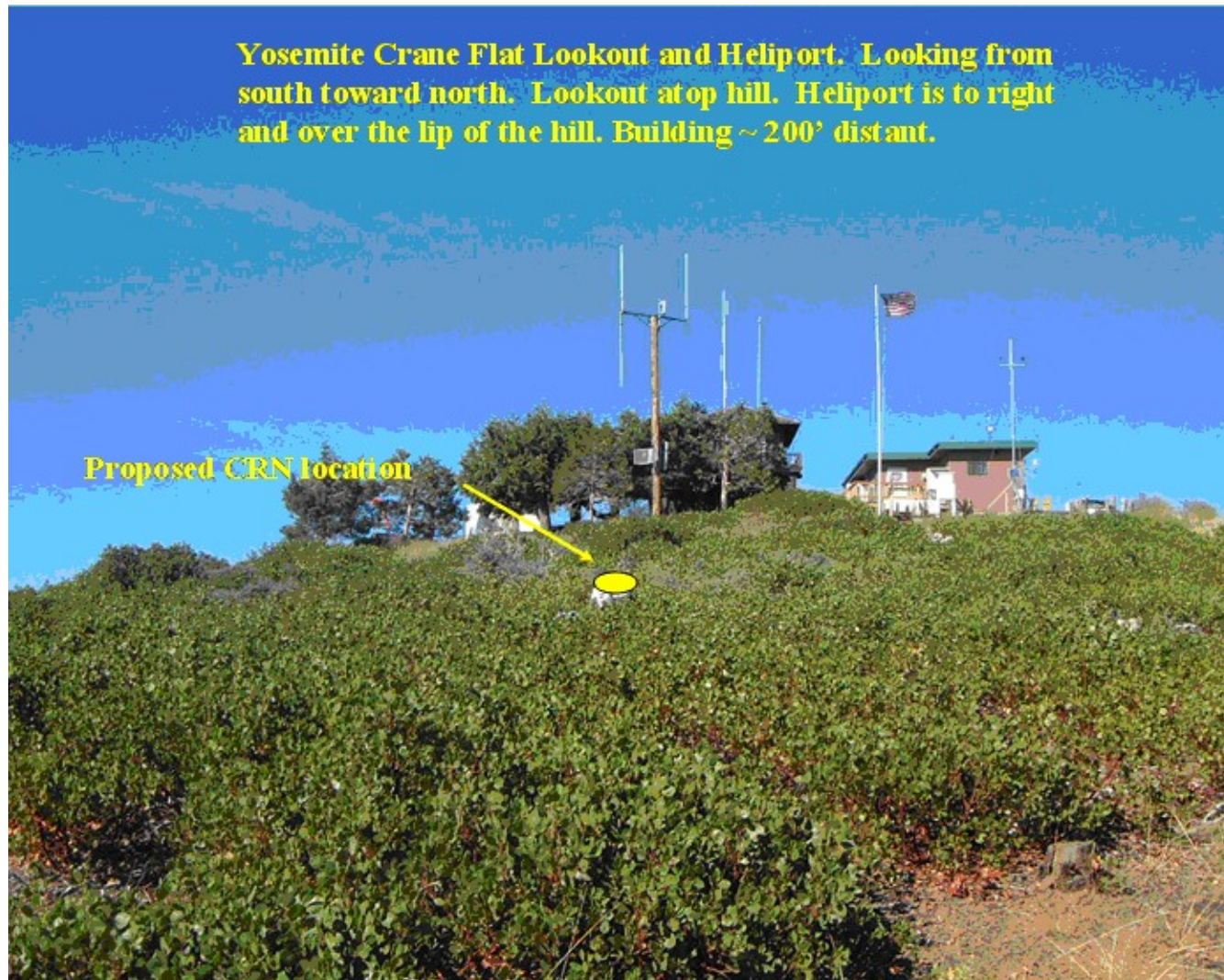


Photo 2 Looking down at proposed site from the Crane Flat Lookout

Preservation Assessment Form (YOSE XXX)

(Version: FEB06)

Compliance Tracking Number: 2006-093

PEPC Project Number: 16542

A. DESCRIPTION OF UNDERTAKING

Title: Crane Flat Lookout, Permanent Climate Monitoring Station Installation

Project Location and Area of Potential Effect:

Crane Flat, Tuolumne County, California

Crane Flat Lookout

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

Project Partner: Michael Changery, National Oceanic and Atmospheric Administration,

Project Description: The purpose of this project is to install a high-quality, permanent weather station that would be part of a national network of 250 similar stations. This station would be maintained and operated by the National Oceanic and Atmospheric Administration (NOAA) for a period of 50-100 years.

Description: The weather station would consist of sensors placed on an instrument tower up to 10 feet above the surface of the ground, a battery/power supply box (4.5 feet high), and a Geonor precipitation gauge (5 feet high) installed in an area 60 feet by 60 feet. A satellite transmission antenna would be mounted on the instrument tower and would not extend above the top of the tower. Each component would be anchored by concrete pads that will require excavation of holes of 1) 2 feet in diameter by 3 feet deep, 2) 3 feet in diameter by 5 feet deep, and 3) 2 feet in diameter by 3 feet deep. Installation of a shelter surrounding the rain gauge would require up to eight holes for fence posts. Trenches 6 inches wide by 18 inches deep would be required to route conduit between the instruments and the AC power at the helibase (approximately 150 feet). Vegetation would be removed in the immediate area of each component and otherwise maintained as low cover as is the current practice.

Sensors would consist of three temperature sensors each enclosed in aspirated solar radiation shields, a cup anemometer (wind speed), a pyranometer (solar energy), and an infrared (IR) thermometer (ground surface temperature). A relative humidity sensor will be added upon completion of the evaluation period (one year). The Climate Reference Network (CRN) parameters to be measured are: 1) air temperature, 2) precipitation, 3) solar radiation (incoming solar energy at the surface of the earth), 4) wind speed, 5) ground surface temperature (IR), and 6) relative humidity.

Precipitation data, recorded every fifteen minutes, and the other hourly observations will be collected and stored in a data logger attached to the tower. These data will be transmitted within a few minutes after each hour via a satellite transmitter for further delivery to the National Climatic Data Center (NCDC), Asheville, NC. Summary of the Day (SOD) statistics will be computed operationally at the NCDC. The instrument system is designed with the capacity for future expansion to accommodate additional sensors, such as soil moisture, soil temperature, atmospheric pressure, and wind speed/direction at the standard 10-meter height. The design allows for future additions of sensors on the tower without disrupting the physical site.

There is an existing fire weather tower near the site. In order to minimize the instrumentation footprint, redundant instrumentation would be eliminated once the proposed station is running satisfactorily.

1. Attached Sensitive Information**	Yes	No	Explanation/Source/Notes
a. Maps	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CR GIS
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
1. Has the Area of Potential Effect been surveyed to identify historic properties? If Yes, provide reference for the Survey (s).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	YOSE 2005J Crane Flat Lookout CLI Level 0
a. Would the proposed action affect a known historic property?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. List all Historic Properties in the Area of Potential Effect:	Affected? Yes	No		Explanation/Notes
a. Crane Flat Lookout Historic District	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Impact to surrounding setting
b.	<input type="checkbox"/>	<input type="checkbox"/>		
c.	<input type="checkbox"/>	<input type="checkbox"/>		
3. List resources in the Area of Potential Effect to which American Indians attach cultural and religious significance:	Affected? Yes	No		Explanation/Notes
a.	<input type="checkbox"/>	<input type="checkbox"/>		
b.	<input type="checkbox"/>	<input type="checkbox"/>		
c.	<input type="checkbox"/>	<input type="checkbox"/>		
4. The proposed action will:	Yes	No	N/A	Explanation/Note
• 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"/>	
• 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	permanant addition of nonhistoric elements/features
• 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ground disturbance
• Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Checklist prepared by: Jeannette Simons

Date: 8/28/06

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.

Archeologist

Name: **Laura Kirn**

Date: 8/8/06

Comments:

Ground Disturbance Involved Yes: ☒ No: ☐

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

Recommended Conditions:

Signature of Archeologist: //signed original on file//

Cultural Anthropologist

Name: **Sonny Montague**

Date:

Comments:

Assessment of Effect:

Recommended Conditions:

Signature of Cultural Anthropologist: _____

Curator

Name: **Jonathan Bayless**

Date:

Comments:

Assessment of Effect:

Recommended Conditions:

Signature of Curator: _____

Historian

Name: **Charles Palmer**

Date:

Comments:

Assessment of Effect:

Recommended Conditions:

Signature of Historian: _____

Historic Architect

Name: **Sueann Brown**

Date:

Comments:

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

Recommended Conditions:

Signature of Historic Architect: //signed original on file//_____

Historic Landscape Architect

Name: **Steven Torgerson**

Date:

Comments:

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

Recommended Conditions:

Signature of Historic Landscape Architect: //signed original on file//_____

Preservation Specialist

Name: **Doug Martin**

Date:

Comments:

Assessment of Effect:

Recommended Conditions: Recommended Conditions

Signature of Preservation Specialist: _____

Native American Liaison

Name: **Jeannette Simons**

Date:

Comments:

Assessment of Effect:

Recommended Conditions:

Signature of Native American Liaison: _____

**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:** 8/22/06
Chief of Resources Management & Science Division

2. Assessment of Effects: No Adverse Effect

- 3. 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:

<Choose Type of Undertaking>

☐ **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.

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: 8/28/06

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: //MJTollefson// Date: 10/20/06

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