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: John Chisum, Project Manager, Yosemite National Park

From: Superintendent, Yosemite National Park

Subject: NEPA and NHPA Clearance: 2009-059 Vogelsang Water Tank, Septic Tank, and Dosing Siphon Repair and Replacement (25672)

The Management 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:

- Ensure helicopter staging areas are outside of all archeological boundaries. Contact Laura Kirn, 379-1314.

\\ *Don L. Neubacher* \\
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.

National Park Service
U.S. Department of the Interior

Yosemite NP
Date: 08/27/2009

Categorical Exclusion Form

Project: 2009-059 Vogelsang Water Tank, Septic Tank, and Dosing Siphon Repair and Replacement

PEPC ID: 25672

Project Description:

This routine maintenance project consists of replacing the existing water tank and existing dosing siphon and completing repairs to the existing dosing and septic tanks at the Vogelsang High Sierra Camp (VHSC). The existing 2,880-gallon concrete water storage tank at VHSC is degraded and does not provide for proper disinfection of potable water and is therefore not in conformance with the Safe Drinking Water Act, National Park Service (NPS) regulations, nor established State of California Department of Health regulations. The existing concrete dosing siphon leaks and does not function properly. The existing 6,900-gallon septic tank leaks.

To address these deficiencies, the following maintenance and repair work will be completed:

- The existing 2,880-gallon water storage tank will be deconstructed by hand with the aid of power tools on site, and the debris preferably will be hauled off-site by stock animals. However, if necessary (and as stipulated in the Minimum Requirement Analysis), up to five helicopter flights may be used to assist in the removal of debris and materials. The floor of the existing concrete tank will be retained in its current location and repaired or patched as necessary. Although the tank is located immediately adjacent to a wetland, no new ground disturbance or impact to the wetlands will result from demolition activities and tank replacement activities, and there will be only negligible disturbance to previously disturbed soils. To safely access the site, there will be minimal vegetation trimming along the existing access trail near the tank site.
- The existing 2,800 gallon concrete water storage tank will be replaced with two smaller 600-gallon prefabricated mate finish stainless steel tanks (1,200 gallons total), thereby reducing tank storage capacity by approximately 1,600 gallons. These two smaller tanks will be placed directly onto the retained concrete tank floor surface with anchor bolts. These smaller tanks will provide ample water storage to meet public health requirements. The exterior of the tanks will have a dull matte finish to reduce the visual impacts and tank fitting will be re-attached to the existing connections.
- The existing above ground concrete dosing tank will be repaired to prevent leakage by removing and replacing an interior / exterior wall within the foot print of the existing tank. The repair will result in reducing that size of the dosing tank from approximately 1,745-gallons to approximately 748-gallons. The resulting smaller dosing tank will be sealed so that it will be water tight. Concrete debris removed from the existing tank will be hauled off site by stock animals, or if necessary, removed during one of the five helicopter flights noted above.
- The existing dosing siphon apparatus (which is located inside the dosing tank) will be removed and replaced with a smaller dosing siphon that delivers smaller doses of effluent to the existing percolation / evaporation leach field mound. This will allow for greater evaporation and reduced ground infiltration.

- The existing septic tank will be drained, cleaned and resealed. Accumulated solids or debris will be packaged and removed from the site by stock animals, or if necessary, removed during one of the five helicopter flights noted above. (Note: The septic tank was recently cleaned in 2003, so quantities of removed materials should be minor.)

It is important to clarify that there are two separate and independent projects currently in process for the Vogelsang area: First, there is the project described in this Categorical Exclusion which: 1) replaces the existing and failing concrete water tank with two small dull-finish stainless steel water tanks; 2) repairs the existing dosing tank, 3) replaces the existing dosing siphon; and 4) cleans and seals the existing septic tank. This project is limited to replacement and / or maintenance of components of the existing water and waste-water treatment systems, and as such will not cause new environmental impacts. Therefore, the project is eligible for approval by Categorical Exclusion to NEPA and is planned to take place during the 2010 summer / fall season. These repair and maintenance actions are independent, will not influence, constrain, or bias future design and compliance for any other project(s) at the site, and are needed to remedy non-conformance with established public health standards.

A public scoping process which announced the need to prepare an environmental assessment for a separate broader project at Vogelsang was conducted from January 15, 2008, to February 15, 2008. This broader project will evaluate a range of alternatives associated with other public health and safety issues, and utility deficiencies at the VHSC and Backpacker's Camp. The NPS is continuing to conduct design studies and environmental analyses for this broader project and plans to proceed with the development of an EA in the future.

Project Locations:

Tuolumne County, CA

Mitigations:

- Ensure helicopter staging areas are outside of all archeological boundaries. Contact Laura Kirn, 379-1314.

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):

DO 12.3.4 (C) 3 - ***Routine maintenance and repairs to non-historic structures, facilities, utilities, grounds, and trails*****.**

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 \\ *Don L. Neubacher* \

Date 9/14/2010

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

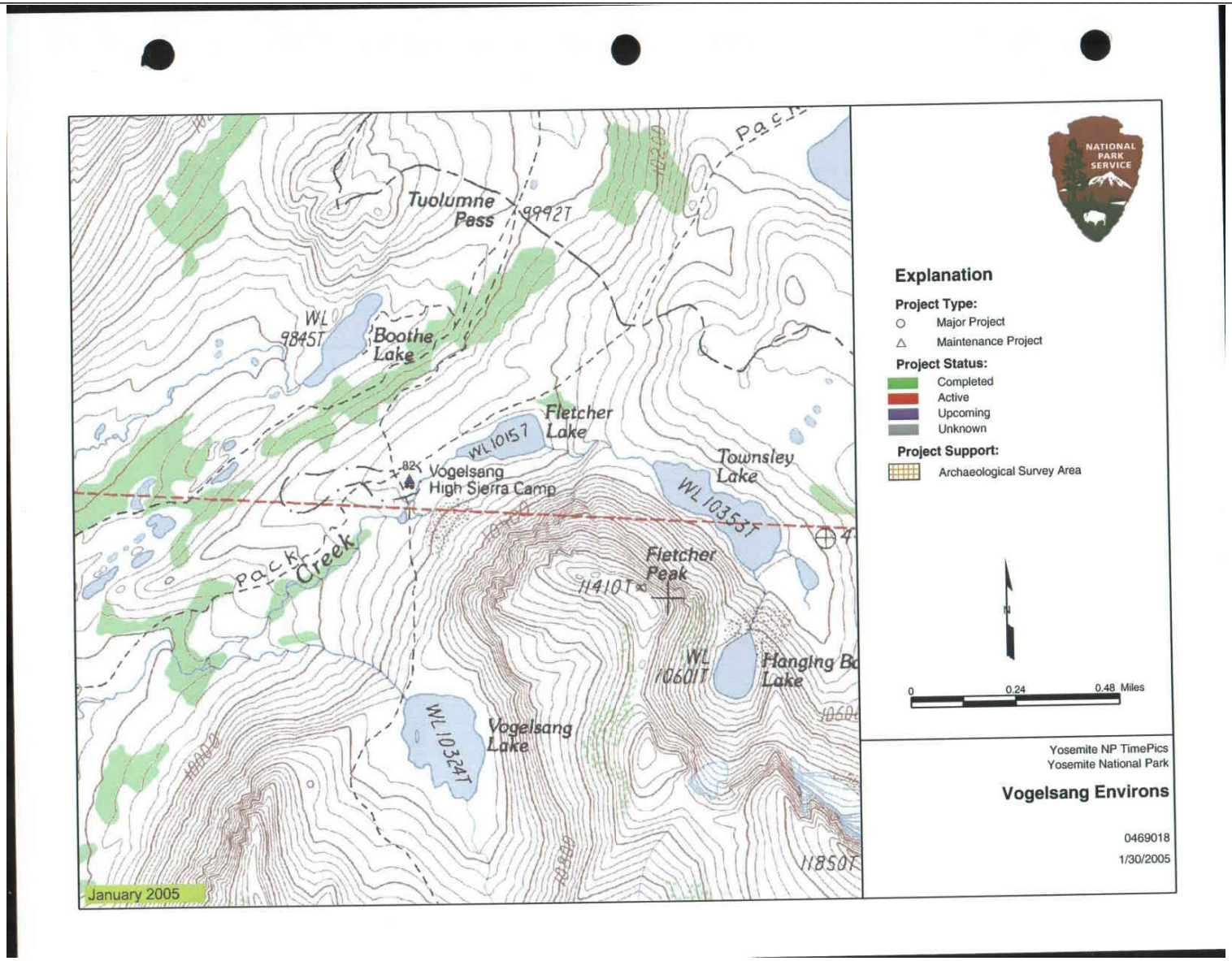
Tuolumne Pass
9992T
WL 9845T
Boothe Lake
Fletcher Lake
WL 10157
Vogelsang High Sierra Camp
Townsley Lake
WL 10353T
Pack Creek
Fletcher Peak
11410T
WL 10601T
Hanging Bo Lake
WL 10324T
Vogelsang Lake
11850T
January 2005
Explanation
Project Type:
Major Project
Maintenance Project
Project Status:
Completed
Active
Upcoming
Unknown
Project Support:
Archaeological Survey Area
0
0.24
0.48 Miles
Yosemite NP TimePics
Yosemite National Park
Vogelsang Environs
0469018
1/30/2005

Photo #1: Concrete water tanks with temporary 300 gallon polyethylene tank in front.

Photo#2: 6,900 gallon concrete & masonry block septic tank.

National Park Service
U.S. Department of the Interior

Yosemite NP
Date: **09/14/2010**

ENVIRONMENTAL SCREENING FORM (ESF)

DO-12 APPENDIX 1

Date Form Initiated: **08/27/2009**

Updated May 2007 - per 2004 DM revisions and proposed DO-12 changes

A. PROJECT INFORMATION

Park Name: Yosemite NP
Project Title: 2009-059 Vogelsang Water Tank, Septic Tank, and Dosing Siphon Repair and Replacement
PEPC Project Number: 25672
Project Type: Facility Rehabilitation (FR)
Project Location: County, State: Tuolumne, California District: CA19
Project Leader: John Chisum

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			There will be negligible effects to the soil due to the project retaining the floor of the water tank. Removal of the walls and roof will have negligible effects on the soil surrounding the tank.
2. From geohazards	No				
3. Air quality		Negligible			Demolishing the existing water tank will include minimal dust emissions.
4. Soundscapes		Negligible			This replacement project includes temporary equipment noises.
5. Water quality or quantity	No				

6. Streamflow characteristics	No				
7. Marine or estuarine resources	No				
8. Floodplains or wetlands		Negligible			The screening vegetation in close proximity of the tank will need to be trimmed. Removal of the tank walls and roof will create negligible disturbance to the area surrounding the tank.
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; no historic properties would be adversely affected by implementing this project.
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				
16. Recreation resources, including supply, demand, visitation, activities, etc.	No				
17. Visitor experience, aesthetic resources		Negligible			There will be negligible impacts to visitor experience, specifically wilderness character through the use of stock or a helicopter to the remove concrete debris associated with the water and dosing tanks. If necessary helicopter use would be minimized to no more than five flights.
18. Archeological resources		Negligible			Archeological sites in the surrounding area.
19. Prehistoric/historic structure	No				

20. Cultural landscapes		Negligible			High Sierra Camp Loop Historic District; Vogelsang High Sierra Camp Historic District.
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, 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				
30. Other important environment resources (e.g. geothermal, paleontological resources)?	No				

C. MANDATORY CRITERIA

Mandatory Criteria: If implemented, would the proposal:	**Yes**	**No**	**N/A**	**Comment or Data Needed to Determine**
A. Have significant impacts on public health or safety?		N		
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?		N		The NPS has determined that these routine maintenance repairs are appropriate and can proceed as authorized by the Settlement Agreement associated with the Merced River Plan lawsuit. The Settlement Agreement primarily applies to activities within the Merced Wild and Scenic River Corridor, and clearly allows the NPS to "conduct operations and maintenance activities," including "routine operations, maintenance

				projects, and emergency responses that are intended to stabilize and protect park facilities, address visitor health and safety issues and protect natural and cultural resources." The project is specifically intended to accomplish these objectives. Moreover, the VHSC is located outside the Merced WSR corridor by more than six miles. As a result, this project will not impact or degrade Merced River values or effect water quality, is consistent with current plans and directives for the VHSC, and it consists of appropriate and suitable technology for the remote and ecologically important location.
C. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))?		N		
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?		N		
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?		N		The repair and maintenance actions are independent, will not influence, constrain, or bias future design and compliance for any other project(s) at the site, and are needed to remedy non-conformance with established public health standards.
F. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?		N		
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?		N		
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?		N		
I. Violate a federal law, or a state, local, or tribal law or requirement imposed for the protection of the environment?		N		
J. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898)?		N		
K. Limit access to and ceremonial use of		N		

Indian sacred sites on federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007)?				
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)?		N		

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

Are personnel preparing this form familiar with the site? **Yes**
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

Interdisciplinary Team	**Field of Expertise**
Don L. Neubacher	Superintendent
Kathleen Morse	Chief of Planning
Mark Butler	Chief of Project Management
Katariina Tuovinen	Chief of Administration Management
Dennis Mattiuzzi / 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
John Chisum	Project Leader
Russell Balch	Environmental Planning and Compliance Program Manager
Elexis Mayer	NHPA Specialist
Jeannette Simons	NEPA Specialist
Renea Kennec	

F. 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 Program Officials	Date
\\ *Renea Kennec* \\ Compliance Specialist – Renea Kennec	9/14/2010
\\ *Elexis Mayer* \\ Compliance Program Manager – Elexis Mayer	9/14/2010
\\ *Mark Butler* \\ Chief, Project Management – Mark Butler	9/14/2010

Approved:

Superintendent	Date
\\ *Don L. Neubacher* \\ Don L. Neubacher	9/14/2010

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

PARK ESF ADDENDUM

Today's Date: **September 14, 2010**

PROJECT INFORMATION

Park Name: Yosemite NP

Project Number: 25672

Project Type: Facility Rehabilitation (FR)

Project Location: County, State: Tuolumne, California District, Section: CA19,

Project Manager: John Chisum

Project Title: 2009-059 Vogelsang Water Tank, Septic Tank, and Dosing Siphon Repair and Replacement

PARK ESF ADDENDUM QUESTIONS & ANSWERS

ESF Addendum Questions	Yes	No	N/A	Data Needed to Determine/Notes
1.SPECIAL STATUS SPECIES CHECKLIST				
2. Listed or proposed threatened or endangered species (Federal or State)?		X		
3. Species of special concern (Federal or State)?		X		
4. Park rare plants or vegetation?		X		
5. Potential habitat for any special-status species listed above?		X		
6.NATIONAL HISTORIC PRESERVATION ACT CHECKLIST				
7. Entail ground disturbance?		X		
8. Are any archeological or ethnographic sites located within the area of potential effect?	X			The assessment of effect is "No Historic Properties Affected."
9. Entail alteration of a historic structure or cultural landscape?		X		
10. Has a National Register form been completed?		X		
11. Are there any structures on the park's List of Classified Structures in the area of potential effect?		X		
12.WILD AND SCENIC RIVERS ACT CHECKLIST				
13. Fall within a wild and scenic river corridor?		X		
14. Fall within the bed and banks AND will affect the free-flow of the river?		X		
15. Have the possibility of affecting water quality of the area?		X		
16. Remain consistent with its river segment classification?			X	
17. Protect and enhance river ORVs?			X	

18. Fall within the River Protection Overlay?		X		
19. If Yes, remain consistent with conditions of the River Protection Overlay?			X	
20. Remain consistent with the areas Management Zoning?			X	
21. Fall on a tributary of a Wild and Scenic River?	X			Rafferty Creek.
22. Will the project encroach or intrude upon the Wild and Scenic River corridor?		X		
23. Will the project unreasonably diminish scenic, recreational, or fish and wildlife values?		X		
100.WILDERNESS ACT CHECKLIST				
101. Within designated Wilderness?	X			Minimum Requirement Analysis attached.
102. Within a Potential Wilderness Addition?	X			

ASSESSMENT OF ACTIONS HAVING AN EFFECT ON CULTURAL RESOURCES

A. DESCRIPTION OF UNDERTAKING

1. Park: **Yosemite NP** Park District: **Wilderness CA19**

2. Project Description:
a. Project Name**: 2009-059 Vogelsang Water Tank, Septic Tank, and Dosing Siphon Repair and Replacement** Date: **September 14, 2010** PEPC Project ID Number: **25672**
b. Describe project and area of potential effects (as defined in 36 CFR 800.2[c])

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

___ No
__X__ Yes, Source or reference: **Archeological sites in the surrounding area. High Sierra Camp Loop Historic District/Vogelsang High Sierra Camp Historic 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): **None**

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
__**No**__ 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:
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: **Jeannette Simons** Date: **August 3, 2009** Title: **Historic Preservation Officer** Telephone: **209-379-1372**

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:

[**X**] Archeologist
Name: **Laura Kirn**
Date: **06/24/2009**
Comments:

Check if project does not involve ground disturbance [ ]
Assessment of Effect: **X** 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)]**

[**X**] Historical Architect
Name: **Sueann Brown**
Date: **06/30/2009**
Comments:

Check if project does not involve ground disturbance [ ]
Assessment of Effect: **X** 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)]**

[**X**] Anthropologist
Name: **Jeannette Simons**
Date: **08/03/2009**
Comments: **American Indian traditional historic properties not affected.**

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

[**X**] Historical Landscape Architect
Name: **David Humphrey**
Date: **06/24/2009**
Comments:

Check if project does not involve ground disturbance [ ]
Assessment of Effect: **X** 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)]**

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

C. PARK SECTION 106 COORDINATOR'S REVIEW AND RECOMMENDATIONS

1. Assessment of Effect:

__**X**___ No Historic Properties Affected _____ 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: _____

[ ] 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: _____

[ ] 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 \\ *Elexis Mayer* *(acting)*

Date: 9/14/2010

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 \\ *Don L. Neubacher* \\

Date: 9/14/2010

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

Minimum Requirement Analysis
Vogelsang Water Tank, Septic Tank, and Dosing Siphon
Repair and Replacement Project

Introduction

The Vogelsang High Sierra Camp is one of a series of five high backcountry camps that were established early in Yosemite National Park's history at the direction of Park Superintendent, W.B. Lewis. Originally established at nearby Booth Lake in 1923, the Vogelsang camp was relocated roughly ½ mile, to its current location near Fletcher Lake in 1940 where it has been nearly continuous seasonal operation for the last 70 years. Since that time, a variety of systems have been utilized to provide potable water and sanitation to the camp, which periodically require rehabilitation, repair and replacement to maintain their functionality. They also require occasional modifications to conform to an ever changing regulatory environment.

Purpose

The purpose of the proposed project is to repair the failing water supply system and bring it into compliance with current regulations; repair and improve the functionality of the existing composting toilet system; and to repair the gray water management system by stopping leaks and modifying the dosing/discharge system to more effectively utilize the existing percolation/evaporation mound.

Scope of Work

The proposed scope of work for this project is as follows:

- The existing 2,880-gallon water storage tank will be deconstructed by hand with the aid of power tools on site, and the debris preferably will be hauled off-site by stock animals. However, if necessary, up to five helicopter flights may be used to assist in the removal or delivery of debris and materials. The floor of the existing concrete tank will be retained in its current location and repaired or patched as necessary. Although the tank is located immediately adjacent to a wetland, no new ground disturbance or impact to the wetlands will result from demolition activities and tank replacement activities, and there will be only negligible disturbance to previously disturbed soils. To safely access the site, there will be minimal vegetation trimming along the existing access trail near the tank site.
- The existing 2,800 gallon concrete water storage tank will be replaced with two smaller 600-gallon prefabricated mate finish stainless steel tanks (1,200 gallons total), thereby reducing tank storage capacity by approximately 1,600 gallons. These two smaller tanks will be placed directly onto the retained concrete tank floor surface with anchor bolts. These smaller tanks will provide ample water storage to meet public health requirements. The exterior of the tanks will have a dull matte finish to reduce the visual impacts and tank fitting will be re-attached to the existing connections.
- The existing above ground concrete dosing tank will be repaired to prevent leakage by removing and replacing an interior / exterior wall within the foot print of the existing tank. The repair will result in reducing that size of the dosing tank from

approximately 1,745-gallons to approximately 748-gallons. The resulting smaller dosing tank will be sealed so that it will be water tight. Concrete debris removed from the existing tank will be hauled off site by stock animals, or if necessary, removed during one of the five helicopter flights noted above.

- The existing dosing siphon apparatus (which is located inside the dosing tank) will be removed and replaced with a smaller dosing siphon that delivers smaller doses of effluent to the existing percolation / evaporation leach field mound. This will allow for greater evaporation and reduced ground infiltration.
- The existing septic tank will be drained, cleaned and resealed. Accumulated solids or debris will be packaged and removed from the site by stock animals, or if necessary, removed during one of the five helicopter flights noted above. (Note: The septic tank was recently cleaned in 2003, so quantities of removed materials should be minor.)

Justification

The National Park Service has a responsibility to provide a safe source of potable water and to protect both the public and the environment from injury or damage by managing the human waste and wastewater generated at the camps in accordance with all applicable Federal, State, Local or other jurisdictional laws, ordinances and policies. Additionally, given the camp's location we have the further responsibility "to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." (*National Park Service Organic Act of 1916*)

The existing potable water supply system is in disrepair and does not provide disinfection; therefore it does not conform to the Safe Drinking Water Act, National Park Service regulations or current State of California Department of Health regulations for treatment of a public water supply. The repairs are required to maintain the functionality of the system and to bring the system into regulatory compliance. Without the repairs, Yosemite National Park runs the risk of being exposed to regulatory sanctions, fines and/or legal actions with the potential for consequences that could extend beyond the operation of the Vogelsang camp.

The solid waste management system, via the composting toilets, needs internal equipment modifications/additions to improve the operating efficiency of the system and provide better management for its current load capacity.

The wastewater system is in disrepair and without the proposed work runs the risk of uncontrolled discharges of wastewater into the surrounding environment.

The systems in question are also regularly utilized by other day hikers and park staff not directly associated with the Vogelsang camp. On peak days these "day" users account for a significant load on the potable water and composting toilet systems.

Analysis

Step 1: Determine whether the proposed use takes place in designated Wilderness or in a Potential Wilderness Addition.

The Vogelsang Camp is located in an area designated as a Potential Wilderness Addition.

Step 2: Determine whether the proposed action is required for the administration of the Yosemite Wilderness or the continueation of the non-conforming use.

The proposed actions are needed to restore the functionality of the sanitary systems at the Vogelsang camp; protect the surrounding environment from unintentional wastewater; and to protect the life, health, safety and enjoyment of the general public. These actions support the following Wilderness Management Plan objectives: 1) Manage for ecosystem integrity: 2) Mitigate, reduce or eliminate human induced change.

Step 3: Determine if the objectives of the proposed action can be met with actions outside of wilderness or potential wilderness.

No.

Step 4: Develop a list of alternatives to meet the objective of the proposed action.

Steps common to all alternatives:

- Crews will be required to operate only within the limits of areas designated by NPS. project management and staff as absolute necessary to perform the work.
- Crew sizes will be limited to the smallest size practicable to complete the project.
- Crews will use Leave No Trace Work Methods.
- Crews will cordon off and sign the work area to preclude accidental intrusion by the public.

Alternative 1: No Action

- Continue operation of the systems as-is with no modifications.

Alternative 2: Perform the work utilizing only non-motorized hand tool construction methods and non-mechanized foot or equestrian transportation modes.

- Demolition of the existing cast in place reinforced concrete water tank and dosing siphon could take several days or perhaps more than a week of constant pounding with sledge hammers, demolition bars, etc. Hand cutting of steel reinforcing could extend the process for a considerably longer duration.
- Typical sledge hammer blows generate noise levels in the 80-100 dB range depending on the type of materials being struck. With several workers hammering this represents a level equivalent to the sound levels experienced on a normal busy city street and is similar in repetition and volume of the 35-45 lb. electric demolition hammer.

- It is estimated that removal of the water tank would generate approximately 145 mule loads of debris and the dosing siphon would create an additional 110 loads.
- Replacing the water tank and siphons with slightly smaller cast in place replacements would likely require 100+ and 80+ loads of Portland cement, gravel, sand, and chemical sealants.
- Demolition debris would require more extensive breaking of the concrete into smaller size pieces to facilitate balanced loading of the mules.
- A larger crew size may be required to facilitate adequate rest periods and for heavy lifting activities.
- The use of prefabricated tanks for the water system would not be possible due to the physical limitations of pack animals. On site fabrication would require considerably more time and result in the same type of facility design as the failed systems being removed.

Alternative 3: Use fully motorized construction and mechanized transport methods.

- Fly all men, materials and small construction equipment into the site utilizing helicopters.
- Utilize a small motorized tractor mounted breaker for demolishing the concrete water tank and torches and power saws to cut up the reinforcement.
- Remove all construction debris via helicopter.
- Shortest project duration - could likely accomplish the entire scope of work 10-15 working days.
- Would be the loudest and most disruptive alternative to the environment. At its peak this would be equivalent to a full scale construction site and would likely preclude the use of the area for other campers and hikers.
- Typical tractor mounted hydraulic breakers generate noise levels in the 110-130dB range. Without hearing protection noise in this range is capable of producing permanent hearing damage.

Alternative 4: Perform the work utilizing mostly non-motorized hand construction methods and minimal use of helicopter operations. Limited use of electric motorized demolition tools would be allowed.

- Utilize hand held electric breakers and perhaps the limited use of hand held demolitions saw to demolish the concrete water tank walls and roof. Repair the existing concrete floor to receive two new water tanks.
- Equipment would be powered utilizing multiple Super Quiet gasoline powered generators operating in the 3000-6000 watt range. Typical noise levels for generators of this type range from 60-75 dB, or comparable to a normal conversation.
- Utilize not more than five heavy lift helicopter flights to deliver prefabricated water tanks, larger material components, and remove most of the demolition debris.
- Concrete pieces could be significantly larger allowing for faster demolition and reduced usage of the motorized equipment.

- The majority of the breaking could be accomplished with hand held motorized breaker hammers in the 35-45 lb classification range. Several manufacturers offer equipment in this size that generate noise levels in the 95-110 dB range.
- While unlikely, a small amount of hard to break materials may be encountered that require using a 70-85 lb class, hand held motorized breaker which typically operate in noise levels ranging from 110-120 dB. Use of this size breaker should be kept to a minimum.
- An electric concrete mixer, powered by the previously described generator, will be used to mix concrete for the new siphon and tank pad.
- Total duration of the most disruptive activities would be significantly less than Alternative 2 and only somewhat longer than Alternative 3. A properly staged and coordinated effort should be able to complete the scope of work utilizing these methods in 20-25 fewer working days.
- No self propelled mechanized construction equipment would be allowed. Wheel barrows and/or small orchard style carts might be utilized to move demolition debris to helicopter pick up areas. They would also be used to move concrete to and from the mixing and pour areas.
- The steel tanks, concrete for the siphon and motorized tools could be brought in on the first flight or two with the demolition bin; the motorized tools could be sent out with the last flight of debris, or packed out on 3-4 mule loads.
- The overall crew size would be limited to 4-6 workers during normal days, occasionally supplemented 3-4 additional trail crew personnel during periods of heavy lifting.
- No personnel will be flown; all workers will hike to and from the site.

Step 5: Determine the effects of each alternative on wilderness health and character.

Alternative 1: could potentially result in unintentional release of deleterious material into the environment and degrade the wilderness experience for visitors.

Alternative 2: would result in the longest project duration which could expose the wilderness to potential greater risk for systemic impacts and prolong the degradation of the wilderness experience for visitors. The demolition could easily take two full weeks or more to accomplish under this work regime. The use of chemical sealers on the water storage tank would require packing in 3-5 mule loads of five gallon drums of potentially hazardous materials which could damage the environment should a spill during transport occur. Several hundred more mule loads would be required than either Alternative 3 or 4.

Alternative 3: would be very loud and disruptive to the peace and enjoyment of the area during the short duration of the motorized operations. Each of the structures could be demolished in a day or less with the tractor mounted motorized breaker. The severity of the disruption could result in longer term effects than readily apparent due to effects caused by soil compaction and ground vibrations.

Alternative 4: would expose the area to shorter duration and less severe impacts than either alternative 2 or 3. As detailed above this could be accomplished in half the time

of purely hand methods with a much gentler impact than the fully motorized alternative. Demolition activities and flight operations would be limited to a few days and other operations should generate little more impact than the camp and day hikers already create.

Step 6: Determine the management concerns of each alternative.

Alternative 1: would result in continued deterioration to the camp's systems and may expose Yosemite National Park, the National Park Service, and its management to potential regulatory, civil or legal action.

Alternative 2: could impact the Vogelsang area for a significant portion of the high country camping season. It may require utilizing the same type of piece-meal site fabricated water system that has failed in the past and may not achieve regulatory compliance goals. The potential for accidents, wrecks and spillage during mule packing operations is a definite possibility.

Alternative 3: would be highly controversial and could result in significant public scrutiny and protest. Access to the area would need to be strictly controlled to preclude hikers from being injured in the work area.

Alternative 4: some groups may not consider helicopter use or limited use of motorized tools as being strictly "minimum tool" methodology, even if the overall impact to the wilderness is reduced in both duration and severity as a result.

Step 7: Chose an alternative.

Alternative 4 is the preferred alternative because it 1) achieves the intended end product of revitalizing the water and wastewater systems at Vogelsang; 2) Is nearly equivalent in noise levels generated by onsite demolition activities to the purely hand tool methods; 3) provides the best technical solution and a reasonable compromise between purely hand and motorized tool operations to both minimize disruption to the ecosystem and visitor experience; and shorten the duration of the project. 4) May shield the park and its management from potential regulatory, civil, or legal action due to failure to meet water and wastewater standards. 5) Protects the wilderness ecosystem from potentially deleterious effects of future failures of the existing systems. 6) Preserves the existing use and character of the area surrounding the Vogelsang camp.

Project Title: **Vogelsang Water Tank, Septic Tank, and Dosing Siphon Repair and Replacement Project**

Check one:

☑ The proposed action is a temporary, one time activity

☐ The proposed action will be an on-going, long term activity.

Submitted By:

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