Environmental Assessment/Preliminary Mitigated Negative Declaration and Initial Study for the San Francisco Public Utilities Commission's

HETCH HETCHY COMMUNICATION SYSTEM UPGRADE PROJECT

October 2007

National Park Service

United States Forest Service

City of San Francisco

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EXECUTIVE SUMMARY

INTRODUCTION

This Draft Environmental Assessment/Initial Study (EA/IS) evaluates the potential environmental impacts that may be associated with the Hetch Hetchy Communication System Upgrade Project (the "Proposed Action") by the California Environmental Quality Act (CEQA) lead agency San Francisco Public Utilities Commission (SFPUC) in cooperation with the National Environmental Policy Act (NEPA) co-lead agencies United States Department of Interior National Park Service (NPS), and the United States Department of Agriculture Forest Service (USFS). The Purpose and Need, Project Objectives, and Proposed Action are described in Section 1.0 of this document. An EA/IS is intended to provide an objective, impartial source of information to be used by the lead agency and members of the public in their consideration of the project. The EA/IS itself does not determine whether or not the project will be approved, but only serves as an informational document in the planning and decision-making process.

This joint environmental document was developed to meet the requirements of both NEPA and CEQA. This document contains a Preliminary Mitigated Negative Declaration (PMND) and an initial study (IS) prepared in accordance with the CEQA, Public Resources Code §21000 et seq., and the State CEQA Guidelines, Title 14 California Code of Regulations (CCR) §15000 et seq. The purpose of this EA/IS is: (1) to determine whether implementation of the project would result in potentially significant effects to the environment, and (2) to incorporate mitigation measures into the project design, as necessary, to eliminate the project's significant or potentially significant effects or reduce them to a point where they are clearly less than significant. In addition, this EA is also being used to fulfill the National Historic Preservation Act (NHPA) review and documentation process. Based on the findings of this IS, the San Francisco Planning Department intends to issue a Mitigated Negative Declaration on the proposed action after the public review period.

Prior to the approval of the Proposed Action, the National Park Service and US Forest Service must comply with NEPA and the regulations published by the Council on Environmental Quality (Title 40 Code of Federal Regulations [CFR] Parts 1500-1508). This document serves as an environmental assessment (EA), prepared in accordance with NEPA and associated federal guidelines, including the National Park Service policies (e.g., DO-12 Handbook and Director's Order), and US Forest Service policies (e.g., FSM 1950 - Environmental Policy and Procedures Manual, and FSH 1909.15 – Environmental Policy and Procedures Handbook). This EA provides information describing the Proposed Action, alternatives, and their environmental consequences. Prior to making a final decision on the Proposed Action, the EA is being provided to public agencies and citizens to allow for an opportunity to comment. The National Park Service and the US Forest Service intent is to prepare separate findings of no significant impact (FONSI) for this Proposed Action after public review of the EA.

The SFPUC, in cooperation with the NPS and the USFS, is proposing a communication system upgrade project in Tuolumne and Stanislaus Counties, California. Hetch Hetchy Water & Power (Hetch Hetchy Water & Power), a subsidiary of the SFPUC, operates the SFPUC Regional Water System in the Hetch

Hetchy region. The project would be constructed at 32 sites, 29 of which already contain existing Hetch Hetchy Water & Power facilities.[1] The proposed project would require the installation of facilities at three new sites: one within Yosemite National Park and two within the Stanislaus National Forest (see Figure 1-1). The SFPUC, the National Park Service, and the US Forest Service have identified deficiencies in the current radio communication system that impair visitor and staff safety, and reduce the ability to provide emergency response and protect forest and park resources from hazards such as fire. To amend these deficiencies, the SFPUC, along with the partner agencies, is proposing improvements to the current communication system.

This EA/IS has been prepared in accordance with both NEPA and CEQA. Of the 32 total sites comprising the Hetch Hetchy Communication System Upgrade Project, one site is within Yosemite National Park; however, 10 sites are within the boundaries of Yosemite National Park on lands managed by the City and the County of San Francisco (CCSF) under the terms of the Raker Act. The newly proposed Poopenaut Pass site is not within the Raker Act right-of-way and is therefore subject to National Park Service land use entitlement authority, and thus subject to NPS action. Of the 32 total sites of the Hetch Hetchy Communication System Upgrade Project, 17 sites are within the Stanislaus National Forest boundary; however 14 of those sites are on lands managed by the City and County of San Francisco under the terms of the Raker Act. Fifteen of those sites are existing facilities, while two new sites are proposed. The two newly proposed sites within Stanislaus National Forest are Cherry Tower Site on Cherry Lake Dam, managed by the City and County of San Francisco under the terms of the Raker Act, and Burnout Ridge Site, located on National Forest System lands and managed by the US Forest Service. Duckwall Mountain and Jones Point are located outside of the Raker Act right-of-way and currently operate under a Special Use Permit from the US Forest Service.

The project would be undertaken by a governmental agency within the State of California (the SFPUC). The CEQA lead agency for this EA/IS is the City and County of San Francisco Planning Department, and the NEPA co-lead agencies are the National Park Service and the US Forest Service.

As appropriate, issues that are uniquely applicable to CEQA or NEPA are identified within the applicable sections of the document. The term "proposed action" is used in this document in a manner equivalent to the term "proposed project" that is commonly used in environmental documents prepared under CEQA. Similarly, "affected environment," a common NEPA term is used in this document. "Affected environment" is approximately equivalent to the standard CEQA term of "environmental setting." Finally, "environmental consequences" is the term used in this document in place of the more common CEQA term of "environmental impacts."

PURPOSE AND NEED AND PROJECT OBJECTIVES

The purpose of the proposed Hetch Hetchy Communication Systems Upgrade Project is to: (1) vacate the 2 GHz band per Federal Communications Commission (FCC) requirements; (2) replace and upgrade the obsolete and aging communication system with an improved system; (3) provide the video and radio

[1] Hetch Hetchy Water & Power holds easements under the Raker Act across lands in Stanislaus National Forest and Yosemite National Park. Hetch Hetchy Water & Power may hold special use permits from the US Forest Service for project facilities, but for the most part has rights-of-way defined as easements in the Raker Act.

bandwidth to allow for future installation of voice radio systems, which could expand system coverage above existing levels in the O'Shaughnessy, Cherry Lake, and Lake Eleanor areas; (4) provide the foundation infrastructure for housing National Park Service and US Forest Service communication equipment associated with their separate communication systems; and (5) provide the foundation infrastructure that could be used in the future to integrate the Hetch Hetchy Water & Power communication system with National Park Service, and US Forest Service communication systems. Currently, microwave radio equipment is used to transmit voice and data communications essential to the operation of Hetch Hetchy Water & Power electric and water supply utilities. The existing radio equipment is obsolete and no longer supported by its manufacturers. Hetch Hetchy Water & Power has, for example, had difficulties in acquiring spare parts for system components. The proposed project would replace or update components of the current communication system located mostly throughout Tuolumne County, and one site in Stanislaus County.

In addition to the age and condition of the existing communications equipment and the insecure position of SFPUC's license to operate its communication system in the Hetch Hetchy region, the SFPUC also has identified communication needs not served by the existing system. These needs include:

- Voice communication to protect the safety of staff working in remote areas as well as develop improved safety for visitors (e.g. better response to emergency search and rescue). Hetch Hetchy Water & Power currently depends on two-way mobile radios from their 24/7 control point (at Moccasin Powerhouse) to the O'Shaughnessy Dam and Cherry Lake areas, which have limited and unreliable coverage. The current US Forest Service and National Park Service radio communication systems do not provide full radio coverage for the Stanislaus National Forest and O'Shaughnessy Dam and Lake Eleanor areas for Yosemite National Park.
- The current microwave system does not have sufficient capacity to provide the bandwidth required to support the voice, data, and video services needed by Hetch Hetchy Water & Power. Video and multiple-network needs are not currently supported on the existing system.
- Dam security is always a concern to Hetch Hetchy Water & Power. Hetch Hetchy Reservoir, Cherry Lake, and Lake Eleanor are the keystones of the San Francisco water supply. An interruption of service from or loss of these reservoirs would impact the public water supply system. The current method of communicating security information via two-way mobile radios is unreliable. Video, control, and data channels are needed to monitor the assets at O'Shaughnessy Dam and Cherry Lake. Current needs not addressed by the existing system at O'Shaughnessy Dam include improved two-way radio coverage, reliable telephone service, and the addition of corporate Local Area Network (LAN) service to improve operational efficiency.
- Current needs not addressed by the existing system at Cherry Lake include Supervisory Control and Data Acquisition (SCADA) monitoring and control of the Cherry Pump Station, Cherry Valvehouse and the domestic water system; two-way radio coverage; reliable telephone coverage; and the addition of corporate LAN service to improve operational efficiency. Needs not addressed by the existing system at Lake Eleanor include SCADA monitoring of the lake elevation and tunnel flow.
- The current system does not allow for data communication which supports the next generation of protective power line equipment needed to replace aged and obsolete equipment. However, the replacement communication system must be capable of providing the additional bandwidth required for video transmission. The current system's overall bandwidth provides for 48 voice

channel capacity, but does not have sufficient capacity to accommodate current and future additional bandwidth requirements.

- Access to existing and future administrative control system networks at operational sites are needed to enhance the productivity of Hetch Hetchy Water & Power staff.

RELATIONSHIP TO OTHER PLANS

The Proposed Action is not tiered to the *Yosemite Valley Plan* and does not implement specific actions called for in the *Yosemite Valley Plan*. The Yosemite National Park *General Management Plan*, the 1991 Stanislaus National Forest Land and Resource Management Plan as amended (Forest Plan, as amended), and the Stanislaus National Forest Plan Direction (July 2005) are the guiding documents for the Hetch Hetchy Communication System Upgrade EA/IS on federal lands. The Proposed Action is not part of the SFPUC Water System Improvement Program (WSIP), which would repair, replace, and seismically upgrade the system's aging pipelines, tunnels, reservoirs, pump stations, storage tanks, and dams.[2]

The City and County of San Francisco land use plans and policies are primarily applicable to projects within the jurisdictional boundaries of San Francisco but in some cases they apply to projects outside of San Francisco. And, although the SFPUC is not legally bound to the land use plans and policies of other jurisdictions, non-CCSF land use plans are discussed to the extent that they provide general land use planning information for the jurisdiction in which the proposed project is located. The *San Francisco General Plan* and the *Sustainability Plan* were developed specifically for lands within the jurisdictional boundaries of San Francisco; however, their underlying goals apply to SFPUC projects on extraterritorial lands. In addition, the SFPUC has adopted various plans and policies that further direct its activities, including the *Urban Water Management Plan*, and the *Water Enterprise Environmental Stewardship Policy*. The Proposed Action relates to the Hetch Hetchy Water & Power communication operations rather than water supply demand and use; therefore the SFPUC's *Urban Water Management Plan* is not relevant to the Proposed Action. Other SFPUC plans, such as the *Alameda Watershed Management Plan*, and the *Peninsula Watershed Management Plan*, are not relevant to the study area of the Proposed Action. The *Water Enterprise Environmental Stewardship Policy,* adopted in 2006, established long-term management direction for CCSF-owned lands and natural resources affected by operation of the SFPUC water system within the Tuolumne River, Alameda Creek, and Peninsula watersheds (SFPUC 2006). It also addresses rights-of-way and properties in urban surroundings under SFPUC management. The policy directs the SFPUC to manage the lands under its responsibility in a manner that maintains the integrity of natural resources. In addition, the Environmental Stewardship Policy will be integrated into SFPUC Water Enterprise planning and decision-making processes and also implemented through a number of direct efforts (SFPUC 2006a).

OVERVIEW OF THE ALTERNATIVES

The Hetch Hetchy Communication System Upgrade Project EA/IS presents and analyzes three alternatives. Alternatives to the Proposed Action are required by Section 102(2)(E) of NEPA. However, alternatives analysis is not required for the project under CEQA. The No Action Alternative

[2] Please note: the WSIP refers to Lake Lloyd, and Cherry Dam while the Proposed Action refers to the same locations solely as Cherry Lake.

(Alternative 1) represents continuing the existing operation and maintenance of the Hetch Hetchy Communication System. The two action alternatives (Alternatives 2 and 3) represent a reasonable range of options to satisfy the purpose and need of the project. An overview of each alternative is presented in Section 2.0.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The Council on Environmental Quality (CEQ) regulations implementing NEPA and the National Park Service and US Forest Service NEPA guidelines require that "the alternative or alternatives which were considered to be environmentally preferable" be identified (CEQ Regulations, Section 1505.2). Environmentally preferable is defined as "the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources" (CEQ 1981).

Section 101 of NEPA states that:

> *"It is the continuing responsibility of the Federal Government to… (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; (2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings; (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice; (5) achieve a balance between population and resource use which will permit high standards of living and wide sharing of life's amenities; and (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."*

Among the three alternatives considered, Alternative 2 represents the Environmentally Preferable Alternative for the Hetch Hetchy Communication System Upgrade Project. Alternative 2 satisfies the national environmental policy goals stated in Section 101 of NEPA. This conclusion is analyzed in Section 2.0 of this document.

ENVIRONMENTAL ANALYSIS

Section 3.0 of this document presents the Affected Environment and Environmental Consequences for the Hetch Hetchy Communication System Upgrade Project EA/IS, which fulfills the requirements of NEPA and CEQA. The Affected Environment section of Section 3.0 describes the existing conditions of the area affected by the alternatives identified in Section 2.0, and the Environmental Consequences section of Section 3.0 analyzes the environmental effects associated with each of the alternatives.

SUMMARY OF CONSULTATION AND COORDINATION PROCESS

Public scoping comments were reviewed and analyzed using the National Park Service Comment Analysis and Response Database (CARD) system. Similar comments were grouped together and a 'concern statement' was generated, which captured the main points expressed by the scoping comments.

The SFPUC, the National Park Service and the US Forest Service prepared responses to each concern statement, presenting the reasons as to how these concerns are incorporated into the planning process. The public scoping process is summarized in Section 1.0 and the consultation process is summarized in Section 6.5 of this document.

SUMMARY OF ENVIRONMENTAL CONSEQUENCES/SIGNIFICANT IMPACTS

Table ES-1 shows the summary of environmental consequences of the No Action, Preferred Alternative, and Poopenaut Pass Alternative Site.

Table ES-1 Summary of Environmental Consequences

Resource Area	Alternative 1 No Action	Alternative 2 Preferred Alternative	Alternative 3 Poopenaut Pass Alternative Site
Geology, Geohazards and Soils			
	No new sites or construction -related ground disturbance would occur.	Implementation of this alternative would result in construction-related ground disturbance at Intake Radio Site, Poopenaut Pass, Cherry Tower Site, and Burnout Ridge. This includes trenching along the Burnout Ridge access road and Poopenaut Pass access trail. Implementation of construction BMPs and mitigation measures would reduce impacts to less than significant levels. Upgrades at most sites would be in existing developed areas.	Same impacts as Alternative 2.
Hydrology, Floodplains, and Water Quality Affected Environment			
	No new sites or construction-related ground disturbance would occur.	Implementation of this alternative would result in an increase in impervious surfaces from new sites. Implementation of construction BMPs and Mitigation Measures 1, 2, and 3 – Hydrology, would reduce hydrology impacts to less than significant levels.	Same impacts as Alternative 2.
Vegetation			
	No new sites or construction-related ground disturbance would occur. No impacts to vegetation would occur.	Implementation of this alternative would disturb vegetation where new sites would be built from ground disturbance and vegetation clearing. Vegetation to be cleared at Intake Radio Site is primarily non-native grassland with some interspersed native grasses and wildflowers. Vegetation to be cleared at	Same impacts as Alternative 2.

Table ES-1 Summary of Environmental Consequences

Resource Area	Alternative 1 No Action	Alternative 2 Preferred Alternative	Alternative 3 Poopenaut Pass Alternative Site
		Burnout Ridge consists of approximately seven trees, shrubs, and native and non-native grasses. Limited vegetation removal at the Poopenaut Pass site would occur. No significant impacts to vegetation would occur. Implementation of Mitigation Measure 1 – Vegetation, at these sites would prevent the introduction of noxious weeds.	
Wildlife			
	No new sites or construction-related ground disturbance would occur. No impacts to wildlife would occur.	Implementation of this alternative would result in short-term, direct impacts as a result of these activities which could include temporary disturbances to foraging, movement, and reproductive activities, and temporary displacement of wildlife species at the new sites. No impacts to wildlife habitat composition or structure would occur at existing developed sites. The new communication towers would meet US Fish & Wildlife Service (USFWS) guidelines for siting and design and therefore, the risk of avian collisions is expected to be low and not likely to affect the viability of common species.	Same impacts as Alternative 2.
Sensitive, Rare, Threatened, and Endangered Species			
	No new sites or construction-related ground disturbance would occur. No impacts to rare, threatened, and endangered species would occur.	Implementation of this alternative could result in impacts to special-status species. The new communication towers would meet USFWS guidelines for siting and design and therefore, the risk of avian collisions is expected to be	Same impacts as Alternative 2.

Table ES-1 Summary of Environmental Consequences

Resource Area	Alternative 1 No Action	Alternative 2 Preferred Alternative	Alternative 3 Poopenaut Pass Alternative Site
		low and not likely to affect the viability of special-status species. Implementation of Mitigation Measure 1 - Vegetation: Protect Known Occurrences of Special-status Plant Species, and Mitigation Measure 2 -– Wildlife: Protect Active Spotted Owl and Northern Goshawk Nest Sites, would reduce impacts to less than significant levels.	
Air Quality			
	Additional trips and construction would not occur. No impacts to air quality would occur.	Implementation of this alternative would result in short-term impacts to air quality from construction related activities. Implementation of BMPs and compliance with applicable regulations would reduce construction related impacts to less than significant levels.	Same impacts as Alternative 2.
Noise			
	Additional trips and construction would not occur. No impacts to noise would occur.	Implementation of this alternative would result in short-term impacts to noise from construction- related activities. Implementation of BMPs and Mitigation Measure 1 and 2 – Noise, would reduce construction related impacts to less than significant levels.	Same impacts as Alternative 2.

Table ES-1 Summary of Environmental Consequences

Resource Area	Alternative 1 No Action	Alternative 2 Preferred Alternative	Alternative 3 Poopenaut Pass Alternative Site
Cultural Resources			
	No new sites or construction-related ground disturbance would occur. No impacts to archaeological resources would occur.	Implementation of this alternative would result in no effects to archaeological sites as the project sites do not contain known archaeological resources. Buried resources could be discovered during ground disturbing construction activities at the new sites. Implementation of Mitigation Measure 1 – Undocumented Cultural Resources, would reduce impacts to less than significant levels. Implementation of this alternative would result in the addition of communication equipment to existing structures. However, the proposed project would not have direct or adverse effects on historic buildings, structures, or landscapes. No mitigation measures for architectural resources are required. Buried resources could be discovered during ground disturbing construction activities at the new sites. Implementation of Mitigation Measure 2 – Human Remains, Compliance with US Forest Service Cultural Resources Management Practice would reduce impacts to less than significant levels. Implementation of Mitigation Measure 3 – Traditional Cultural Properties, would complete the Section 106 consultation process.	Same impacts as Alternative 2.

Table ES-1 Summary of Environmental Consequences

Resource Area	Alternative 1 No Action	Alternative 2 Preferred Alternative	Alternative 3 Poopenaut Pass Alternative Site
Land Use			
	No new sites or construction-related ground disturbance would occur. No impacts to land use would occur.	Implementation of this alternative would result in the construction of new sites. Land uses at existing sites would not change. A Forest Plan Amendment for the new US Forest Service sites and implementation of a Mitigation Measure 1 – Land Use, to reduce impacts between the Poopenaut Pass site and the Wilderness Boundary area would reduce impacts to less than significant.	Same impacts as Alternative 2.
Visual/Scenic Resources			
	No new sites or construction-related ground disturbance would occur. No impacts to visual/scenic resources would occur.	Implementation of this alternative would result in construction of new sites and installation of new equipment. No significant visual/scenic impacts would occur. Implementation of Mitigation Measure 1 – Visual, would reduce visual/scenic impacts to less than significant levels.	Same impacts as Alternative 2 except at alternate Poopenaut Pass site. Implementation of this alternative would introduce a human-made feature into the visual landscape that would be more visible than Alternative 2.
Visitor Experience and Recreation			
	Parts of the existing communication system are obsolete now while other parts are aging; timely replacement and upgrades will ensure continued support of operational activities such as law enforcement, search and rescue, fire management, and visitor and staff safety.	Implementation of Mitigation Measure 1 – Visitor Experience and Recreation, would reduce visitor experience and recreation impacts to less than significant levels at the Poopenaut Pass and Cherry Tower Site areas during construction periods.	Same impacts as Alternative 2.

Table ES-1 Summary of Environmental Consequences

Resource Area	Alternative 1 No Action	Alternative 2 Preferred Alternative	Alternative 3 Poopenaut Pass Alternative Site
Transportation			
	No additional trips would be generated. No impacts to transportation would occur.	Implementation of the Proposed Action would result in a short-term increase in traffic at the new sites from construction related traffic. Implementation of Mitigation Measure 1 – Transportation, would reduce construction related impacts at the new sites to less than significant levels.	Same impacts as Alternative 2.
CEQA Specific			
Population and Housing			
	N/A	Implementation of the Proposed Action would not induce substantial population growth because new homes or businesses or extension of major infrastructure are not proposed or needed. Impacts to population growth would not occur.	N/A
Utilities and Service Systems			
	N/A	Implementation of the Proposed Action would not require wastewater treatment, sewer, or water supply system. The new sites would not require a significant amount of electricity to operate and would result in less than significant impacts to utilities service systems, specifically electricity.	N/A

Table ES-1 Summary of Environmental Consequences

Resource Area	Alternative 1 No Action	Alternative 2 Preferred Alternative	Alternative 3 Poopenaut Pass Alternative Site
Public Services			
	N/A	None of the upgrades would require new public service facilities, increased staffing, or result in the need for residential development; and therefore would not result in an increased demand for fire and police protection; or additional demand for schools, parks, or other public services.	N/A
Hazards and Hazardous Materials			
	N/A	Implementation of the Proposed Action would result in construction activities at all of the project sites that would require the use of certain potentially hazardous materials such as fuels, oils, and solvents. Construction activities could result in accidental spills. Implementation of mitigation measures would reduce impacts from hazards and hazardous materials to less than significant levels.	N/A
Mineral and Energy Resources			
	N/A	Implementation of the Proposed Action would not result in the loss of locally or regionally important mineral and energy resources. No impacts would occur to mineral resources and the project would not encourage activities that would result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner.	N/A

Table ES-1 Summary of Environmental Consequences

Resource Area	Alternative 1 No Action	Alternative 2 Preferred Alternative	Alternative 3 Poopenaut Pass Alternative Site
Agricultural Resources			
	N/A	Implementation of the Proposed Action would not convert any farmland or conflict with Williamson Act contracts. No impacts to agricultural resources would occur.	N/A

1.0 BACKGROUND AND PURPOSE AND NEED FOR PROPOSED ACTION

1.1 INTRODUCTION

As appropriate, issues that are uniquely applicable to the California Environmental Quality Act (CEQA) or the National Environmental Policy Act (NEPA) are identified within the applicable sections of the document. The term "proposed action" is used in this document in a manner equivalent to the term "proposed project" that is commonly used in environmental documents prepared under CEQA. Similarly, "affected environment," a common NEPA term is used in this document. "Affected environment" is approximately equivalent to the standard CEQA term of "environmental setting." Finally, "environmental consequences" is the term used in this document in place of the more common CEQA term of "environmental impacts." In addition, this Draft Environmental Assessment/Initial Study (EA/IS) is also being used to fulfill the National Historic Preservation Act (NHPA) review and documentation process.

1.2 DOCUMENT STRUCTURE

A description of the proposed action and alternatives for the Hetch Hetchy Communication System Upgrade Project, and the evaluation of potential impacts of these alternatives, are integrated into this document. The contents of this document are as follows:

Executive Summary – This section includes an overview of the project's purpose and need, alternatives, and summary of environmental consequences.

Section 1: Background and Purpose and Need for Proposed Action – This section includes a discussion of the project background; the project's purpose and need; project objectives; local, National Park Service (NPS), and United States Forest Service (USFS) planning context; the local and federal regulatory authorities and jurisdictions; and a summary of the public scoping process.

Section 2: Proposed Action and Alternatives – This section describes the No Project Alternative, two Action Alternatives under consideration by the San Francisco Public Utilities Commission (SFPUC), NPS, and the USFS, including alternatives that were considered but dismissed from further consideration.

Section 3: Affected Environment and Environmental Consequences – This section provides an overview of the affected environment, describing the existing condition of natural, cultural, and social resources in the project area. This section also presents the analysis of the potential environmental impacts of the proposed action, including cumulative impacts, and an assessment of the impacts associated with each alternative that was analyzed in detail.

Section 4: Mitigation Measures – This section describes the mitigation measures for the proposed action by resource area.

Section 5: Wild and Scenic Rivers Act Compliance – This section analyzes the consistency of the proposed action with the management elements of the Tuolumne Wild and Scenic River Comprehensive Management Plan. Yosemite National Park has begun the preparation of the Tuolumne Wild and Scenic

River Comprehensive Management Plan for the 54 miles of river that are under the jurisdiction of the NPS in Yosemite National Park. A final document is not available at this time; however, the NPS has developed the *Tuolumne Wild and Scenic River Draft Outstandingly Remarkable Values (ORV) Report*. This EA/IS will not constrain the preparation of the future Wild and Scenic River Comprehensive Management Plan.

Section 6: Consultation and Coordination – This section summarizes the proposed action's compliance with Federal Executive Orders, and the process of interaction with the public, agencies, and organizations that was used during the preparation of this document.

Section 7.0: List of Preparers and Reviewers – This section lists the names and qualifications of the persons who are primarily responsible for preparing and reviewing the document.

Section 8.0: Glossary and Acronyms – This section defines the technical terms and acronyms used in this document.

Section 9.0: Bibliography – This section lists the references cited in this document.

In addition to the above sections, the following appendices to this document provide additional supporting data and information.

Appendix A – Cumulative Projects List
Appendix B – CEQA Initial Study Checklist
Appendix C – Tuolumne Wild and Scenic River Section 7 Determination
Appendix D – Communication Systems Technical Requirements

1.3 PROJECT BACKGROUND

1.3.1 Existing Facilities and Operation

1.3.1.1 Overview of Existing Facilities

The Hetch Hetchy regional water system is a water supply and power development comprised of dams and reservoirs, hydroelectric plants, penstocks, aqueducts, pipelines, tunnels, transmission lines and related facilities. The Raker Act (further described in Section 1.9.3.1) authorizes the City and County of San Francisco (CCSF) to occupy federal lands in Tuolumne and other counties for purposes relating to the construction and operation of Hetch Hetchy Water & Power (HHW&P) facilities. HHW&P holds easements under the Raker Act across lands in Stanislaus National Forest and Yosemite National Park. Communications is one of the authorized uses encompassed by the Raker Act and not a new use that is outside of the City and County of San Francisco's easement rights.

The Hetch Hetchy system includes facilities in the upper Tuolumne River watershed of Yosemite National Park and the Stanislaus National Forest in the Sierra Nevada, and facilities that convey water from the Sierra Nevada to the Alameda East Portal near Sunol in the San Francisco Bay Area. The Hetch Hetchy regional water system is owned by the CCSF, managed by the SFPUC, and operated and

maintained by the SFPUC subsidiary, HHW&P. The Hetch Hetchy regional water system provides drinking water to 2.4 million people in San Francisco, San Mateo, Santa Clara, Alameda and Tuolumne counties. The system also provides hydroelectric power for San Francisco municipal uses and for sale to irrigation districts and public utilities. HHW&P operates a communications system to support the operation of the above facilities. Please see Figure 1-1, Existing Microwave System.

1.3.1.2 Communication System Configuration

The existing communication system used for the operation of HHW&P's water supply and electric utility is a combination of microwave radios and fiber optics to transmit voice and data communications. A 2 gigahertz (GHz) microwave radio system is used to communicate between Warnerville Switchyard, Moccasin Powerhouse, and Intake Switchyard; and a fiber optic communications system is used to communicate between Intake Switchyard, Kirkwood and Holm Powerhouses (see Figure 1-1 Existing Microwave System).

There is currently limited communications in the O'Shaughnessy Dam, Cherry Lake, and Lake Eleanor areas. The backbone sites of the existing communication system are (west to east): Warnerville Switchyard, Moccasin Peak, Moccasin Powerhouse, Moccasin Powerhouse Passive Reflector, Duckwall Mountain, Jones Point, Holm Powerhouse, Intake Switchyard and Kirkwood Powerhouse.

The existing communication system provides basic services to support HHW&P's operations, but it is obsolete and is no longer supported by the manufacturer. The system also relies on outdated fiber optic terminal equipment at Intake Switchyard, Holm Powerhouse, Kirkwood Powerhouse, and Intake Radio Site, for which HHW&P has had difficulty acquiring spare parts (Timberline 2004).

Utility power reliability generally cannot be expected to meet the system requirements, especially at remote mountain top sites. Therefore, existing switchyards and powerhouses have station batteries that can be used to provide emergency backup power.

1.4 PURPOSE AND NEED FOR THE PROJECT/ACTION

The purpose of the proposed Hetch Hetchy Communication Systems Upgrade Project is to: 1) vacate the 2 GHz band per Federal Communications Commission (FCC) requirements; 2) replace and upgrade the aging communications system with an improved system; 3) provide appropriate video and radio bandwidth to allow for future installation of voice radio systems, which could expand and improve system coverage in the O'Shaughnessy Dam, Cherry Lake, and Lake Eleanor areas; 4) provide the foundation infrastructure for housing NPS and USFS communications equipment associated with their individual communications systems; and 5) provide the foundation infrastructure that could be used in the future to integrate the HHW&P communication system with NPS, and USFS communications. These items are described in more detail below. In 1992, the FCC issued their First Report and Order and Third Notice of Proposed Rule Making, the "Redevelopment of Spectrum to Encourage Innovations in the Use of New Telecommunications Technologies" (47 CFR Part 101.69 et seq.). The FCC rule requires HHW&P to vacate use of their current operating frequencies in the 2 GHz band at such time that it is

Legend

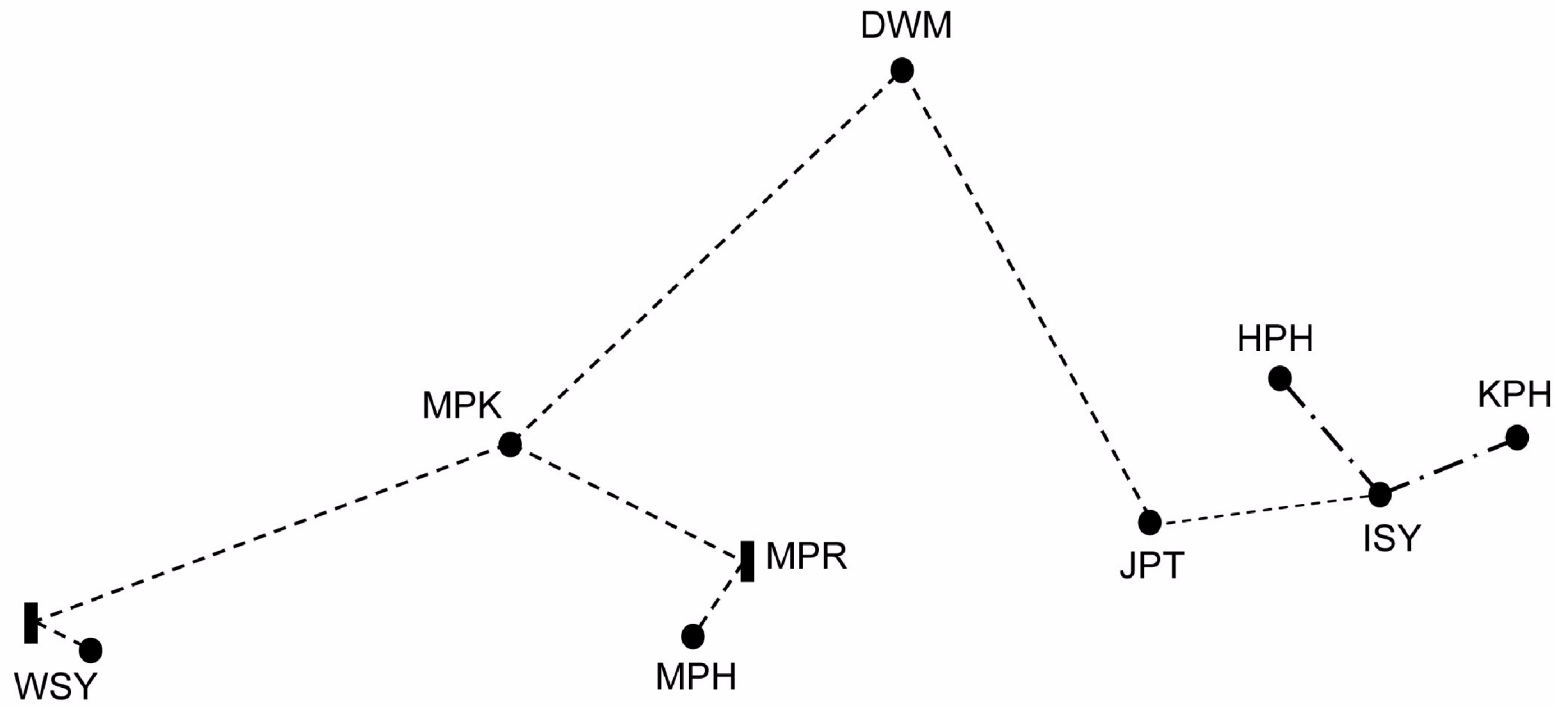
Site Location

Passive Reflector

Microwave Radio

Aerial Fiber Optic Cable

SITE ACRONYMS and NAMES	
Site Acronym	**Site Name**
DWM	Duckwall Mountain
HPH	Holm Powerhouse
ISY	Intake Switchyard
JPT	Jones Point
KPH	Kirkwood Powerhouse
MPH	Moccasin Powerhouse
MPK	Moccasin Peak
MPR	Moccasin Powerhouse Passive Reflector
WSY	Warnerville Switchyard



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Source: Timberline Engineering, Inc. 2006

Existing System Configuration

Figure 1-1

determined that the band is needed by an emerging technology licensee. Emerging technology licensees include wireless communication systems, such as personal communications services, mobile satellite services, and third generation (3G) mobile services. The demand to vacate the 2 GHz band used by HHW&P has not yet been issued by the FCC. However, the request could be issued at any time and HHW&P would then be required to vacate the frequency within six months. As this would be an insufficient period of time to implement permitting processes and installation of a new system, it is imperative that HHW&P voluntarily vacate the frequency in advance.

To limit the disruption associated with replacing the radio system under very short notice, HHW&P has initiated the process of voluntarily vacating the 2 GHz band and replacing their existing analog microwave system with a combination of 6 GHz and 11 GHz digital microwave radios and aerial fiber optic cable installed on electrical transmission lines. Radios operating at higher frequencies have higher bandwidth, and can transmit more data than lower frequency radios, thus, the 6 GHz and 11 GHz bandwidths allow for greater data capacity than the current system.

Currently, microwave radio equipment is used to transmit voice and data communications essential to the operation and security of HHW&P electric and water supply utilities. The existing radio equipment is obsolete and no longer supported by its manufacturers. In this case, obsolete means the manufacturer no longer makes the equipment and does not provide support. Specifically, spare parts cannot be obtained from the manufacturer; however, the existing system is still operational. HHW&P has had difficulties in acquiring spare parts for system components. The proposed project would replace or update components of the current communications system located mostly throughout Tuolumne County, and one site in Stanislaus County.

In addition to the age and condition of the communications equipment and the insecure position of HHW&P's license to operate its communications system, HHW&P also has identified communications needs not served by the existing system. These needs include:

- Voice communications to protect the safety of staff working in remote areas as well as to develop improved safety of visitors (e.g. better response to emergency search and rescue). HHW&P currently depends on two-way mobile radios from their 24/7 control point (at Moccasin Powerhouse) to the O'Shaughnessy Dam and Cherry Lake areas, which have limited and unreliable coverage. The current USFS and NPS radio communications systems do not provide full radio coverage for the Stanislaus National Forest and O'Shaughnessy Dam and Lake Eleanor areas for Yosemite National Park.
- Currently the microwave system does not have sufficient capacity to provide the bandwidth required to support the voice, data, and video services required by HHW&P. Video and multiple-network needs are currently not supported on the existing system.
- Dam security is always a concern to HHW&P. Hetch Hetchy Reservoir, Cherry Lake, and Lake Eleanor are the keystones of the San Francisco water supply. An interruption of service from or loss of these reservoirs would impact this water supply system. The current method of communicating security information via two-way mobile radios is unreliable. Video, control, and data channels are needed to monitor the assets at O'Shaughnessy Dam and Cherry Lake. Current needs that are not addressed with the system at O'Shaughnessy Dam include improved two-way

radio coverage, reliable telephone service, and the addition of the corporate Local Area Network (LAN) service to improve operational efficiency.

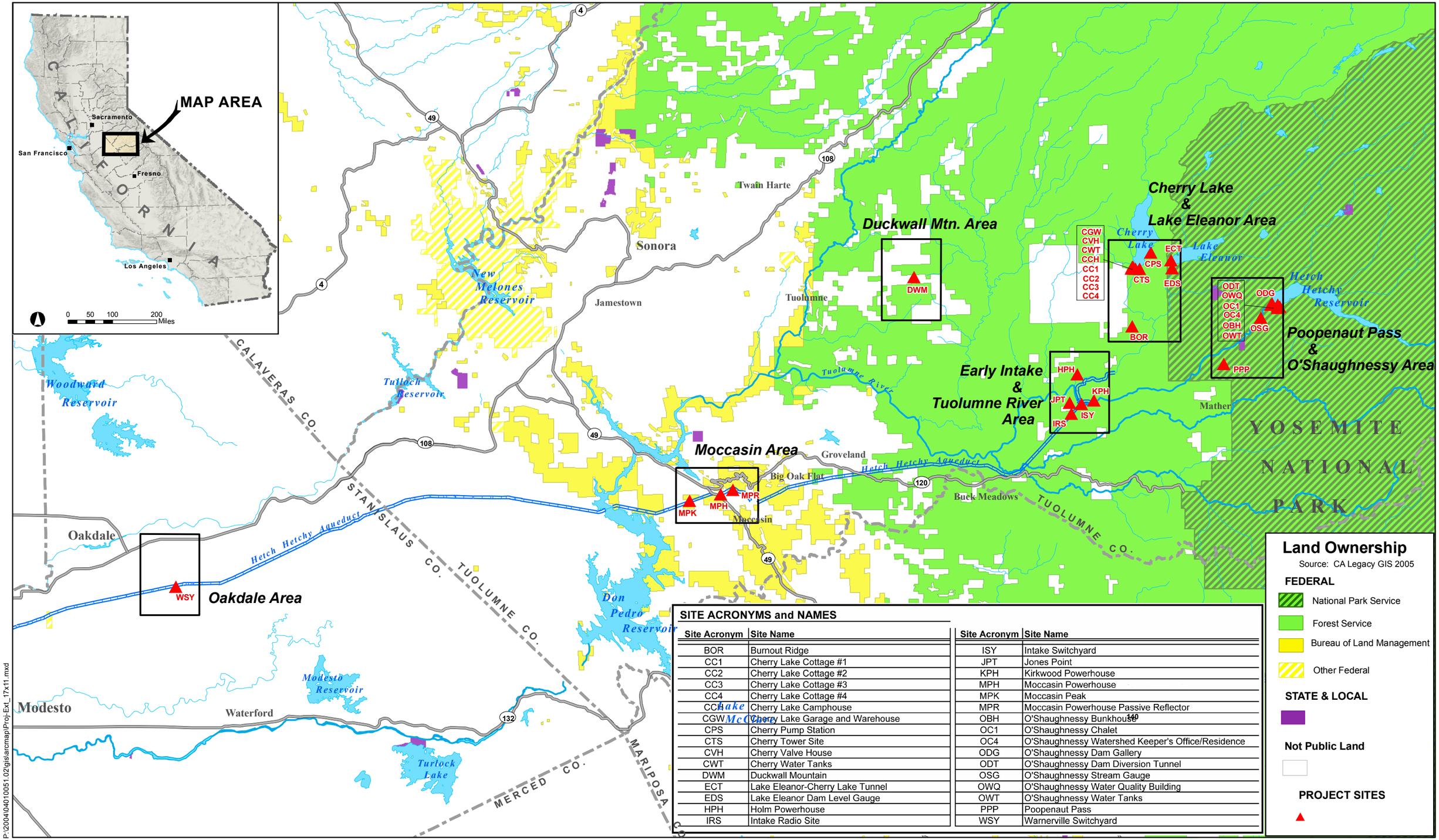
Current needs not addressed with the system at Cherry Lake includes Supervisory Control and Data Acquisition (SCADA) monitoring and control of the Cherry Pump Station and Cherry Valvehouse and the domestic water system, two-way radio coverage, reliable telephone coverage, and the addition of the corporate LAN service to improve operational efficiency. Needs not addressed with the system at Lake Eleanor includes SCADA monitoring of the lake elevation and tunnel flow.

- The current system does not allow for data communications to support the next generation of protective equipment that will be needed to replace the aging equipment now providing power-line protection. The replacement communication system must be capable of providing the additional bandwidth required for video transmission. The current system's overall bandwidth provides for 48 voice channel capacity, but does not have sufficient capacity to accommodate current and additional bandwidth requirements.
- Access to the existing administrative and future control system networks at operational sites to enhance the productivity of HHW&P staff.

In addition, HHW&P has a need to share information with the NPS Dispatch in the future because NPS is the response force for security alarms at O'Shaughnessy Dam. The system upgrade would provide the foundation infrastructure and bandwidth to allow for future installation of voice radio systems. This would allow the USFS the possibility to expand and improve the future communication system in the Lake Eleanor and O'Shaughnessy Dam areas, and the Cherry Lake area for NPS. The Burnout Ridge tower and building would provide an additional location for USFS radio repeaters and associated equipment to be installed expanding the coverage of the existing USFS radio system and reducing the number of areas where a signal is not available. The Regional Project Area showing the sites for the proposed action are shown in Figure 1-2.

The system upgrade would provide the foundation system that permits improved radio communications vital to the operation of HHW&P's utilities and would support USFS and NPS operational activities such as law enforcement, search and rescue, fire management, visitor and staff safety, and protection of forest and park resources.

The communication system upgrade is subject to both CEQA and NEPA as it involves decisions by local and Federal agencies (described in Section 1.7). The sites within Stanislaus County (Warnerville Switchyard and Moccasin Site) are located within Raker Act right-of-way. The HHW&P owns considerable land in fee at the Moccasin Powerhouse. Of the 32 total sites of the Hetch Hetchy Communication System Upgrade Project, 11 sites are within Yosemite National Park; 10 of those sites are on lands managed by the City and the County of San Francisco under the terms of the Raker Act. The Poopenaut Pass site is not within the Raker Act right-of-way and is therefore subject to NPS land use entitlement authority. Seventeen of the sites are within the Stanislaus National Forest boundary, 14 of which are on lands managed by the City and County of San Francisco under the terms of the Raker Act. Fifteen of the 17 sites within the Stanislaus National Forest boundary are existing facilities, while two new sites are proposed. The two newly proposed sites within Stanislaus National Forest are Cherry Tower Site on Cherry Lake Dam, managed by the City and County of San Francisco under the terms of



SITE ACRONYMS and NAMES

Site Acronym	Site Name	Site Acronym	Site Name
BOR	Burnout Ridge	ISY	Intake Switchyard
CC1	Cherry Lake Cottage #1	JPT	Jones Point
CC2	Cherry Lake Cottage #2	KPH	Kirkwood Powerhouse
CC3	Cherry Lake Cottage #3	MPH	Moccasin Powerhouse
CC4	Cherry Lake Cottage #4	MPK	Moccasin Peak
CCH	Cherry Lake Camphouse	MPR	Moccasin Powerhouse Passive Reflector
CGW	Cherry Lake Garage and Warehouse	OBH	O'Shaughnessy Bunkhouse
CPS	Cherry Pump Station	OC1	O'Shaughnessy Chalet
CTS	Cherry Tower Site	OC4	O'Shaughnessy Watershed Keeper's Office/Residence
CVH	Cherry Valve House	ODG	O'Shaughnessy Dam Gallery
CWT	Cherry Water Tanks	ODT	O'Shaughnessy Dam Diversion Tunnel
DWM	Duckwall Mountain	OSG	O'Shaughnessy Stream Gauge
ECT	Lake Eleanor-Cherry Lake Tunnel	OWQ	O'Shaughnessy Water Quality Building
EDS	Lake Eleanor Dam Level Gauge	OWT	O'Shaughnessy Water Tanks
HPH	Holm Powerhouse	PPP	Poopenaut Pass
IRS	Intake Radio Site	WSY	Warnerville Switchyard

Land Ownership

Source: CA Legacy GIS 2005

FEDERAL
- National Park Service
- Forest Service
- Bureau of Land Management
- Other Federal

STATE & LOCAL

Not Public Land

PROJECT SITES

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Source: USGS DRG Base map / CASIL Ownership / Timberline Engineering -- Site locations / EDAW 2006

5 2.5 0 5 10 Miles

Scale 1 : 285,120
1" = 4.5 miles

7/10/07

Note: This map is for general locating purposes only. Raker Act right of way boundaries not shown.

Regional Project Area

Figure 1-2

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the Raker Act; and Burnout Ridge, located on National Forest System lands and managed by the USFS. Duckwall Mountain and Jones Point are located outside of the Raker Act right-of-way and currently operating under a Special Use Permit from the USFS. In addition, all of the new communication towers are subject to FCC licensing.

The Proposed Action would provide the foundation infrastructure to expand and improve communication coverage in the Cherry Lake, Lake Eleanor, and O'Shaughnessy Dam areas. The Proposed Action would provide video and radio bandwidth to allow for future installation of voice radio systems to areas currently not served. This as a whole would improve communications between O'Shaughnessy Dam and the Warnerville Switchyard site, as well as the efficiency of the HHW&P staff. For example, currently HHW&P staff must make trips to many of the sites for data collection obtained from recorders (i.e., dam water level measurements). The system upgrade would serve to streamline and eliminate some manual tasks and automate data transmission to staffed sites in the future. Please refer to Appendix F, *Communication Systems Technical Requirements* which details the explanation for the selection of the new sites.

1.5 PROJECT OBJECTIVES

Objectives of the project are to:

- Comply with FCC requirements to vacate the 2 GHz band.
- Replace and update aged and obsolete components of the communication system.
- Add new critical communication sites to the system.
- Provide the foundation infrastructure to allow for the option of separate or integrated communications for HHW&P, NPS and USFS in the future; and provide opportunities to improve the communication reliability for the prospective health and safety of staff and for emergency response.
- Provide the foundation infrastructure to enable improvements to be made for communication reliability for dam and facility security in the future.

1.6 MANAGEMENT GOALS

The management goals for the project are:

San Francisco Public Utilities Commission (SFPUC)

- To provide an improved communication system for management of the regional water and power supply.

National Park Service

- Maintain a safe, functional, and orderly environment that provides compatible opportunities for resource preservation and enjoyment by visitors and employees (NPS 1980).
- Protect the rights, safety, and security of all visitors and employees (NPS 1980).

Forest Service, Stanislaus National Forest

- Provide facilities, including transportation system and administrative sites, needed to efficiently and safely manage the National Forest (USDA 2005).

1.7 DECISIONS TO BE MADE

The Hetch Hetchy Communication System Upgrade Project involves reviews and decisions that must be made by the San Francisco Planning Department (the CEQA Lead Agency), the SFPUC, the NPS (NEPA Co-Lead Agency), and the USFS (NEPA Co-Lead Agency). To support the decision-making on their respective actions, the NPS and USFS must comply with NEPA. The USFS must approve appropriate amendments to the Stanislaus National Forest Land and Resource Management Plan (Forest Plan) and approve the use of Stanislaus National Forest site (outside of Raker Act right-of-way) for the proposed facilities and their operation (at the Burnout Ridge site). The NPS does not require a General Management Plan amendment, but must approve the use of the Yosemite National Park site for the proposed facilities and their operation outside of the Raker Act right-of-way (Poopenaut Pass site). The San Francisco Planning Department is responsible for environmental review of the proposed project pursuant to CEQA. The SFPUC is responsible for project approval (as it relates to use of CCSF funding). The City and County of San Francisco is exempt from obtaining county use permits under the principle of intergovernmental immunity set forth in Government Code 53090 et Seq. for sites within Raker Act lands. The SFPUC would be responsible for project implementation, adherence to permit conditions, and other regulatory requirements.

San Francisco Planning Department Decision: Environmental review under CEQA and approval by the Planning Department Major Environmental Analysis Division Environmental Review Officer.

SFPUC Decision: Project approval and adoption of findings regarding mitigation, monitoring and reporting; entry into special use permits or right-of-way agreements with the USFS and NPS for the sites outside of the Raker Act right-of-way; and easement acquisition over privately owned timberland for access to the Burnout Ridge site.

USFS Decision: Environmental review under NEPA; Finding of No Significant Impact (FONSI) and this supporting EA document approval by the Forest Supervisor.

Forest Plan Amendment. Development at the Burnout Ridge site would require approval of an amendment to the Stanislaus National Forest Land and Resource Management Plan (Forest Plan) by the USFS, as this plan currently does not provide for the development of new communication sites beyond those already identified in the plan.

A Special Use Permit approved by the Forest Supervisor for the development, operation and maintenance of the proposed facilities, utilities, and road improvements. Approval of appearance of all sites under Raker Act section 4. NHPA Section 106 review and documentation.

NPS Decision: Environmental review under NEPA: FONSI and this supporting EA document approval by the Regional Director of Yosemite National Park.

Issuance of land use entitlement (right-of-way permit) for the Poopenaut Pass site, and approval of appearance of all sites under Raker Act section 4. NHPA Section 106 review and documentation.

FCC Decision: Licensing of new sites, re-licensing of upgraded sites and giving up licensing of sites that will no longer be part of the communication system.

1.8 SUMMARY OF PUBLIC SCOPING PROCESS

1.8.1 Public Scoping

The proposed action was listed in the USFS Schedule of Proposed Actions for the January 1, 2006 to March 31, 2006 period, the Stanislaus National Forest website, and on the NPS Park Management website on February 9, 2006. The public scoping period was from February 21, 2006 to March 27, 2006. In addition, as part of the public involvement process, NPS and USFS held joint public Open Houses in Yosemite Valley at the Visitor Center Auditorium on Wednesday, February 22, 2006, and Wednesday, March 22, 2006 (from 2 PM to 6 PM). In addition, a site tour of the proposed project siting options within Yosemite National Park in the Poopenaut Pass vicinity took place on March 10, 2006. The public was encouraged to submit scoping comments identifying key issues and potential alternatives that could be evaluated as part of the environmental analysis for the proposed action. Using the comments from the public and other agencies, the interdisciplinary team developed a list of issues to address in this document. Written public scoping comments were received by fax, email, and U.S. mail. As a result of the public scoping period, the NPS received comments from 24 individuals, three (3) organizations, one (1) civic group, and one (1) tribal group. The USFS received comments from five individuals of which four were duplicate letters sent to NPS. A total of 30 separate comments were received (not including duplicates). The analysis of these comments generated 29 general concern statements, which were categorized and considered for incorporation in the planning process.

1.8.2 Issues and Concerns Addressed in this Document

The following issues were identified during the public scoping process by NPS and USFS staff. These issues are addressed in the analysis presented in Section 3.0, Affected Environment and Environmental Consequences.

Some of the main concerns raised during the public scoping period are identified below, along with where the issues are addressed in this document:

- Demonstrate the necessity and benefit of the improved communication systems to the NPS and USFS (see Section 1.4 - Purpose and Need for the Project).
- Consider the potential impacts to vistas and views and physical integrity to the landscape from the proposed action (See Section 3.10.2 - Visual/Scenic Resources).

- Clarify the locations of Burnout Ridge and/or Poopenaut Pass (see Figures 2-15 and 2-16 in Section 2.0 – Proposed Action and Alternatives).
- Clarify the description of the existing and proposed communication systems (see Sections 1.3 and 2.2).
- Clarify the relationship between the NPS, HHW&P, and whether Yosemite National Park and visitors would benefit from the proposed action (see Section 1.4 – Purpose and Need).
- The National Park Service should cooperate with the people of Tuolumne County regarding the proposed action (see Section 6.3 – Project Scoping History).
- Consider sites with the least short-term and long-term environmental impacts (see Section 2.3 – Overview of Alternatives).
- Evaluate Site 6 and 7 as the preferred Poopenaut Pass location (see Section 2.4.5.1 – Poopenaut Pass Sites).
- Evaluate sites for special status plant and animal species (see Sections 3.8.3 – Vegetation, 3.8.4 – Wildlife, and 3.8.5 – Rare, Threatened and Endangered Species).
- Address the history of the Paiute Indians in historical related context of Hetch Hetchy Valley (see Section 3.9.1.1 – Prehistory and Ethnography).
- Consider impacts to public recreational uses (see Section 3.10.3).
- Place new communication hardware in areas that would not interfere with emergency helicopter landings. (No issue has been identified for the proposed facilities.)
- Do not consider expanding cell service because of impacts to Wilderness. (see Section 3)
- Present the analysis of the different communication systems (see Section 2.4 – Alternatives Considered But Dismissed).
- Conduct a valid NEPA process. (This document fulfills a key part of this requirement.)
- Ensure that the project is compliant with NPS and USFS regulations (see Section 3.0).
- Trench for utility lines associated with the project along existing roadways (see Section 2.3).
- Preserve the designated Wilderness boundaries. (No boundary change is proposed or needed.)
- Preserve the overlook and old trail. (No specific change is proposed to any overlooks and trails.)

1.8.3 Issues and Concerns Not Addressed in this Document

Issues and concerns generated through public scoping that are not within the scope of this proposed action, and thereby will not be addressed in the environmental assessment, include the following items:

- Stop spending taxpayer money on these environmental evaluations.
- Identify if the project is affected by the revised Merced River Plan litigation.
- Consider partnerships with private enterprises as a funding option for communications projects and not use NPS money targeted for other park programs.
- Consider abandoning the project.
- Consider removing O'Shaughnessy Dam and restoring the Hetch Hetchy Valley.

- Consider including cell or radio broadcasting service in this communications system (see Section 2.2.4).

1.9 EA/IS JOINT DOCUMENT AND ROLE OF AGENCIES

1.9.1 State and Federal Lead Agencies.

This document addresses both state and federal environmental laws. As appropriate, issues that are uniquely applicable to CEQA, NEPA, NPS policies (e.g., DO-12 Handbook and Director's Order), and USFS policies are identified within the applicable sections of the document. Pursuant to CEQA Guidelines Section 15051, designation of a lead agency is required to ensure certification of the environmental documents that evaluate project impacts and propose mitigation, in accordance with the CEQA requirements. The lead agency under CEQA for the proposed project is the San Francisco Planning Department. The NPS and USFS are the co-lead agencies under NEPA (40 CFR 1501.5), because the proposed action would involve lands under the jurisdiction of both agencies. The FCC is a cooperating agency because the proposed action would require new sites to be licensed and upgraded sites to be re-licensed.

The FCC licenses associated with HHW&P operations at Moccasin Powerhouse Passive Reflector, Duckwall Mountain, and Jones Point would be given up, as these sites would no longer be in use as part of the Hetch Hetchy Communication System. HHW&P is one of several tenants at the Duckwall Mountain site, and Duckwall Mountain would be maintained as a communication site even though the HHW&P microwave equipment, antennas, and antenna feed system is removed. The USFS will work with HHW&P and the remaining Duckwall communication site tenants to determine who will become the new Special Use Permit Holder at the site. Since HHW&P would no longer need a repeater at Jones Point, the existing microwave equipment, shelter, communication tower, antennas, and antenna feed system would be removed.

1.9.2 Relationship to Other Plans

The Proposed Action is not tiered to the *Yosemite Valley Plan* and does not implement specific actions called for in the *Yosemite Valley Plan*. The Yosemite National Park *General Management Plan*, the 1991 Stanislaus National Forest Land and Resource Management Plan as amended (Forest Plan, as amended), and the Stanislaus National Forest Plan Direction (July 2005) are the guiding documents for the Hetch Hetchy Communication System Upgrade on federal lands. The Proposed Action is not part of the SFPUC Water System Improvement Program (WSIP), which would repair, replace, and seismically upgrade the system's aging pipelines, tunnels, reservoirs, pump stations, storage tanks, and dams.[1]

The City and County of San Francisco land use plans and policies are primarily applicable to projects within the jurisdictional boundaries of San Francisco but in some cases they apply to projects outside of San Francisco. And, although the SFPUC is not legally bound to the land use plans and policies of other jurisdictions, non- City and County of San Francisco land use plans are discussed to the extent that they provide general land use planning information for the jurisdiction in which the proposed project is

[1] Please note: the WSIP refers to what this project refers to as Cherry Lake as Lake Lloyd, and the dam as Cherry Dam.

located. The *San Francisco General Plan* and the *Sustainability Plan* were developed specifically for lands within the jurisdictional boundaries of San Francisco; however, their underlying goals apply to SFPUC projects on extraterritorial lands. The SFPUC has adopted various plans and policies that further direct its activities, including the *Urban Water Management Plan*, and the *Water Enterprise Environmental Stewardship Policy*. The proposed project relates to the HHW&P communication operations rather than water supply demand and use and therefore the SFPUC's *Urban Water Management Plan* is not relevant to the proposed project. Other SFPUC plans, such as the *Alameda Watershed Management Plan*, and the *Peninsula Watershed Management Plan*, are not relevant to the study area of the proposed project.

The *Water Enterprise Environmental Stewardship Policy,* adopted in 2006, established the long-term management direction for City and County of San Francisco-owned lands and natural resources affected by operation of the SFPUC water system within the Tuolumne River, Alameda Creek, and Peninsula watersheds (SFPUC 2006a). It also addresses rights-of-way and properties in urban surroundings under SFPUC management. The policy directs the SFPUC to manage the lands under its responsibility in a manner that maintains the integrity of natural resources. In addition, the Environmental Stewardship Policy will be integrated into SFPUC Water Enterprise planning and decision-making processes and also directly implemented through a number of efforts (SFPUC 2006a). Project consistency with applicable plans is discussed in Section 3.7.1.

1.9.3 Planning Context

The Hetch Hetchy Communication System Upgrade Project is subject to the following regulations and policies. It must comply with requirements of NEPA and CEQA, but also within the parameters of other legislation that governs land use within the City and County of San Francisco, Yosemite National Park and the Stanislaus National Forest.

1.9.3.1 City and County of San Francisco

Raker Act

The Raker Act (H.R. 7207, 63rd Congress, 1st Session) was passed by the U.S. Congress in 1913, which granted the City and County of San Francisco certain rights-of-way in, over, and through certain public lands, including Yosemite National Park and Stanislaus National Forest. The Raker Act right-of-way's purpose is to allow for the construction, operation, and maintenance of aqueducts, canals, ditches, pipes, pipelines, flumes, tunnels, and conduits for conveying water for domestic purposes and uses to the City and County of San Francisco. The Raker Act authorized the City and County of San Francisco to occupy federal lands in Tuolumne and other counties for purposes relating to the construction and operation of HHW&P facilities including communications facilities. Communications is one of the authorized purposes of the Raker Act and not a new use that is outside of the City and County of San Francisco's easement rights.

Extraterritorial Lands Under the San Francisco City Charter, Section 8B.121, conveys SFPUC authority over the management, use, and control of extraterritorial lands, which are properties outside of the City

that the CCSF owns or leases or over which it holds easements.[2] Section 8B.121 of the City Charter provides that the *San Francisco General Plan* and City building and zoning ordinances, to the extent they are applicable to these extraterritorial lands and are not in conflict with Section 8B.121 of the City Charter, would generally apply to SFPUC projects on extraterritorial lands outside of the city.

Intergovernmental Immunity

The City and County of San Francisco, as a chartered city and county, and its SFPUC, as a municipal utility, receive intergovernmental immunity under California Government Code Sections 53090 *et seq*. for sites within the Raker Act. Section 53090 *et seq*. provides that the SFPUC receives intergovernmental immunity from the planning and building laws of other cities and counties in which those lands are located, including CCSF-owned extraterritorial lands managed through the SFPUC. Thus, the zoning and building codes, general plans, specific plans, and other planning policies of Stanislaus and Tuolumne counties do not apply to the proposed project.

The SFPUC seeks to work cooperatively with local jurisdictions where CCSF-owned facilities are sited outside of San Francisco to avoid conflicts with local plans and building and zoning codes. Although the SFPUC is not legally bound to the general plans and zoning ordinances of other jurisdictions, these plans may provide guidance in the environmental review of the Hetch Hetchy Communication System Upgrade Project, particularly policies or plans that have been adopted for the purpose of avoiding or mitigating an environmental effect.

Under Government Code Section 65402(b), the SFPUC is required to inform local jurisdictions, including Stanislaus and Tuolumne counties, of its plans to construct the proposed project (or to acquire or dispose of its extraterritorial property). The counties are entitled to a 40-day review period to determine the consistency of the project with their general plans. Under this requirement, the counties' determinations of consistency are advisory to the SFPUC rather than binding. However, as mentioned above, a project's compatibility with the environmental conservation and mitigation plans and policies of other potentially affected jurisdictions may be relevant under CEQA.

1.9.3.2 Yosemite National Park

National Park Service Organic Act

The U.S. Department of the Interior NPS was established in 1916 by the Organic Act, in order to "promote and regulate the use of parks" and defined the purpose of the national parks "to conserve the scenery and natural and historic objects and 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." This law provides overall guidance for the management of Yosemite National Park. The National Park Service *Management Policies 2006* provides guidance on addressing impairment on park resources and values.

[2] Notwithstanding Charter Section 8B.121, the Public Utilities Commission shall have exclusive charge of the construction, management, supervision, maintenance, extension, expansion, operation, use and control of all water, clean water and energy supplies and utilities of the City as well as the real, personal and financial assets that are under the Commission's jurisdiction or assigned to the Commission under Section 4.132.

General Management and Implementation Plans

Planning in Yosemite National Park takes five forms: general management planning, program planning, strategic planning, implementation planning, and annual planning. General and implementation level planning are relevant to the proposed action. General management plans are required for all national parks by the National Park and Recreation Act of 1978.

The purpose of a general management plan is to set a "clearly defined direction for resource preservation and visitor use" (NPS 1998), and to provide general directions and policies to guide planning and management in the park. The General Management Plan (NPS 1980) is the overall planning document for Yosemite National Park.

Implementation plans, which typically tier off of the General Management Plan focus on "how to implement an activity or project needed to achieve a long-term goal" (NPS 1998). Implementation plans may direct specific projects as well as ongoing management activities or programs—and typically provide a more extensive level of detail and analysis. The proposed action described in this EA/IS fulfills implementation plan requirements.

Management Goals

Management goals identify long-range direction for Yosemite National Park. Any proposed action must carefully balance multiple goals and constraints, especially in a park as large and complex as Yosemite National Park. The General Management Plan for Yosemite National Park sets forth five broad goals for management of the park:

- reclaim priceless natural beauty;
- allow natural processes to prevail;
- promote visitor understanding and enjoyment;
- markedly reduce traffic congestion; and
- reduce crowding.

Of the 32 total sites of the Hetch Hetchy Communication System Upgrade Project, 11 sites are within Yosemite National Park; however, 10 of those sites are on lands managed by the City and the County of San Francisco under the terms of the Raker Act. The Poopenaut Pass site is not within the Raker Act right-of-way and is therefore subject to NPS land use authority.

1.9.3.3 Stanislaus National Forest Plan

The USFS was initially established in 1905 by Congress as an agency of the U.S. Department of Agriculture to provide quality timber and water for the Nation's benefit (USDA 2006). However, the USFS' purpose has expanded to "manage national forests for additional multiple uses and benefits and for the sustained yield of renewable resources such as water, forage, wildlife, wood, and recreation" (USDA 2006).

The 1991 Stanislaus National Forest Land and Resource Management Plan as amended (Forest Plan, as amended) provides direction for general forest desired conditions. The Stanislaus National Forest "Forest Plan Direction July 2005" presents the current Forest Plan management direction, based on the original Forest Plan as modified through the Forest Plan appeals process and amendments. The Forest Plan as amended has established Forest-wide Standards and Guidelines, which apply to all Forest lands. These Standards and Guidelines are necessary to implement the Forest Plan in conformance with Regional Management direction and legal requirements (such as Clean Water Act, Clean Air Act, National Historic Preservation Act, National Forest Management Act, Endangered Species Act, and other legislation and regulations such as 36 CFR 219.13) (USDA 2005). These Standards and Guidelines are used at the project level as part of planning for all projects and activities.

In addition to the Forest-wide Standards and Guidelines, the Forest has been divided into Management Areas based on their predominant management emphasis. Each Management Area has a management emphasis statement, a description of the physical area, and a management prescription that describes specific practices, activities, and Standards and Guidelines applicable to that Management Area (USDA 2005). All Forest-wide Standards and Guidelines also apply within each Management Area.

Of the 32 total sites of the Hetch Hetchy Communication System Upgrade Project, 17 sites are within the Stanislaus National Forest boundary, however 14 of those sites are on lands managed by the City and County of San Francisco under the terms of the Raker Act. Fifteen of those sites are existing facilities, while two new sites are proposed. The two newly proposed sites within Stanislaus National Forest are Cherry Tower Site on Cherry Lake Dam, managed by the City and County of San Francisco under the terms of the Raker Act, and Burnout Ridge, located on National Forest System lands and managed by the USFS. Duckwall Mountain and Jones Point are located outside of the Raker Act right-of-way and currently operate under a Special Use Permit from the USFS.

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