APPENDIX A
CUMULATIVE PROJECTS LIST

Following is a list of projects that may have potential cumulative impact when considered along with the Hetch Hetchy Communication System Upgrade Project alternatives. The purpose of the cumulative impact analysis is to determine (1) whether the resources, ecosystems and human communities have already been affected by past or present activities, and (2) whether other agencies or the public have plans that may affect resources in the future. The cumulative project list includes major projects within Yosemite National Park and Stanislaus National Forest. The projects and their summaries were obtained from the National Park Service Park Planning website, recently completed Environmental Assessments (EAs), and the Stanislaus National Forest Schedule of Proposed Actions website (USDA 2007b).

CITY AND COUNTY OF SAN FRANCISCO PROJECTS

Project Name: Water System Improvement Program

Description: The San Francisco Public Utilities Commission (SFPUC) is proposing to adopt and implement the Water System Improvement Program (WSIP) to increase the reliability of the regional water system that serves 2.4 million people in San Francisco and the San Francisco Bay Area. The WSIP would improve the regional system with respect to water quality, seismic response, water delivery, and water supply to meet water delivery needs in the service area through the year 2030 and would establish level of service goals and system performance objectives. The WSIP would implement a proposed water supply option, modify system operations, and construct a series of facility improvement projects. The WSIP area spans seven counties—Tuolumne, Stanislaus, San Joaquin, Alameda, Santa Clara, San Mateo, and San Francisco.

Project Name: Hetch Hetchy Repair and Rehabilitation Program

Description: The SFPUC has developed the Repair and Rehabilitation Program for its facilities in the Tuolumne River corridor. Several projects have been scheduled for implementation between 2008 and 2012. They include repairing Early Intake Dam, lining Moccasin Reservoir, improving and enlarging the Lower Cherry Aqueduct, and expanding the Moccasin Creek bypass. Likely future projects that have not yet been scheduled include repair of existing roads and bridges and implementation of a vegetation management program for water and power rights-of-way and areas surrounding Priest and Moccasin Reservoirs.

Project Name: Discretionary Fishery Releases from Hetch Hetchy Reservoir

Description: An agreement between the City and County of San Francisco (CCSF) and the U.S. Department of the Interior (DOI) provided for several supplemental releases of water from Hetch Hetchy Reservoir, in addition to the current required minimum releases, to support resident trout populations. As agreed, the SFPUC releases an extra 64 cubic feet per second (cfs) at Hetch Hetchy Reservoir on any day that flow in Canyon Tunnel exceeds 920 cfs. Also, the U.S. Fish and Wildlife Service (USFWS), an agency within the DOI, has the discretion to require this additional water to be released from Hetch

Hetchy Reservoir in an amount varying from 4,400 to 15,000 acre-feet, depending on hydrologic conditions, for the benefit of resident trout. If shown to be necessary for fish habitat, the USFWS may also seek to have additional water released in wetter hydrologic year types under certain conditions (CCSF 1987).

In March 1987, the CCSF and DOI agreed on the amounts and a procedure for determining whether supplemental flow releases were necessary. The agreement provided for a study of the relationship between the resident trout population and stream flow below O'Shaughnessy Dam. The study was intended to establish whether additional releases were actually needed and, if so, the appropriate timing of such releases. The draft study, published in 1992, called for the release of greater amounts of water, but did not provide guidance on the timing of releases. To date, the DOI has not exercised its discretion to require these supplemental releases, and the SFPUC has not implemented them. Recently, the SFPUC began working with the USFWS to bring the matter to a conclusion. In 2006, the SFPUC made supplemental releases as part of the experimental program to study the relationship between flow rate in the river, the depth of water in the channel, and the extent of trout habitat.

Project Name: Watershed and Environmental Improvement Program

Description: The SFPUC is developing this program to protect and restore lands and natural resources critical to the operation of the SFPUC regional water system. The program could include ecosystem and habitat protection, improvements, and restoration and would address such issues as fish passage, riparian habitat degradation, and sensitive species recovery in the Tuolumne, Alameda, and Peninsula watersheds. Program planning is in progress, and initial activities include field surveys and information gathering on current ecological and geomorphic conditions in the Tuolumne River from O'Shaughnessy Dam to Don Pedro Reservoir, Cherry Creek downstream of Cherry Dam, and Eleanor Creek downstream of Eleanor Dam (McBain & Trush 2006). However, no specific projects or actions affecting Hetch Hetchy Reservoir or the Tuolumne River below the reservoir have been identified.

YOSEMITE NATIONAL PARK PROJECTS

Project Name: Parkwide Communications Data Network

Description: The proposed project is to update the communications data network for Yosemite National Park. The park serves more than 3.75 million visitors per year, and has over 1,100 square miles of Wilderness, 800 miles of foot trails and covers extensive remote terrain from 2,500 to 13,100 feet in elevation. Communication reliability is vital to having situational awareness and prompt emergency response. The current communications infrastructure at Yosemite relies on dated technology and equipment that is difficult to maintain, has limited compatibility between various independent communication systems that exist throughout the park, and limited potential for equipment upgrades. The park often experiences outages during storms, and park emergency staff are forced to rely on a variety of different communication systems across the park. A communications data network upgrade would significantly improve connectivity, reliability and speed of service. This project would provide the necessary infrastructure for a modern communications data network that may include microwave and fiber optics to transfer computer Local Area Network (LAN) data, radio communications, security and

safety video systems, telephony, alarm systems, traffic data, and telemetry. The upgraded network would also enhance narrowband and land mobile radio infrastructure and LAN connectivity for El Portal, Yosemite Valley, Wawona, Tuolumne, Crane Flat and Hetch Hetchy, and all the park entrances.

An Environmental Assessment has been initiated.

Project Name: Utilities Master Plan/East Yosemite Valley Utilities Improvement Plan

Description: The existing utility infrastructure serving Yosemite Valley was identified in the *Yosemite Valley Plan* as a potential problem due to its age, condition, inadequate capacity, inaccessibility to future facilities, and inappropriate location in environmentally sensitive areas. The National Park Service completed a *Utilities Master Plan* for the east Yosemite Valley in 2003. This plan incorporated information on existing utility conditions and required repairs identified in the *Yosemite Valley Sanitary Sewer Capital Improvement Plan*, completed in 2002. The *Utilities Master Plan* assessed the current condition of utilities (water, wastewater, electric, and communications) in the Valley and the future Valley utility needs based on facilities proposed in the *Yosemite Valley Plan*. The *Utilities Master Plan* was developed to allow efficient relocation and upgrading of utility systems to provide for utility needs while reducing long-term environmental impacts from utility repair and maintenance activities.

An Environmental Assessment on the *Utilities Master Plan* was completed in June 2003 and a Finding of No Significant Impact (FONSI) was signed in October 2003. Implementation of the utility improvements will occur in three phases over 10 years. Construction of phase 1 of the improvements began in 2005. The remaining phases of this project will commence following resolution of the Merced River Comprehensive Management Plan planning process.

Project Name: The Tunnel View Overlook Rehabilitation

Description: The Tunnel View scenic overlook is a historic site located adjacent to Wawona Road. This overlook affords expansive views of Yosemite Valley, El Capitan, Bridalveil Fall, and Half Dome that have captured the awe of visitors for nearly 75 years. Tour buses, tram tours, and single-family vehicles bring an estimated 5,000 to 7,000 people to the site per day during the height of the tourist season. The purpose of the Tunnel View Overlook Rehabilitation is to remedy long-standing vehicle-to-vehicle and vehicle-to-pedestrian safety issues, to correct drainage deficiencies, to provide clear circulation patterns for pedestrians and vehicles, to enhance and maintain viewing opportunities for visitors, to provide accessibility to viewing areas for visitors with disabilities, to correct safety problems associated with the Inspiration Point trailhead, and to address sanitation issues.

The environmental compliance process for the Tunnel View Rehabilitation is currently in progress.

Project Name: Comprehensive Transportation Plan

Description: This plan will study modern transportation solutions for the park. Many past park plans have studied transportation, both parkwide and in specific areas such as Yosemite Valley. However, many areas such as the Wawona and Tioga Road corridors have not been reexamined since the 1980 General Management Plan. Previous plans defined problems and solutions to deal with visitation and

demographic projections that reflected trends characteristic of that time period. Since then, the park has continued to update transportation and visitor information through a grant from the Federal Transit Administration. This new data indicates that many previous predictions and assumptions are not consistent with today's conditions, and thus a fresh examination of transportation systems and solutions is warranted. Park planners, social and natural scientists, and transportation managers will work together to prepare a new plan. They will compile past plans and decisions regarding visitor experience, access, and resource conditions relative to the transportation system, examine how the system is currently functioning, and, with public involvement, identify issues, develop alternatives, and present solutions in a comprehensive transportation management plan.

Project Name: Multi-Use Trail to West Yosemite Valley

Description: Approximately 80 percent of Yosemite's 4 million visitors per year stop at Yosemite Valley destinations. Bicyclists, hikers, visitors using wheelchairs, and those with strollers find that the multi-use paved trail in the east Valley ends abruptly near Swinging Bridge. To continue the trail to west Valley destinations (such as El Capitan or Bridalveil Fall), users must either confront automobile traffic by traveling along the edge of a busy roadway-a potentially life-threatening safety hazard-or return to private vehicles, ending an important aspect of their recreational experience and adding to traffic noise, emissions and congestion. This project would provide an accessible trail, separate from automobile traffic, to allow convenient, safe, accessible, and enjoyable access to destinations in the west Valley. The project would be accomplished as a shared cost partnership between the National Park Service and the nonprofit Yosemite Fund cooperating association.

Project Name: Tuolumne Wild and Scenic River Comprehensive Management Plan

Description: The development of the Tuolumne Wild and Scenic River Comprehensive Management Plan will bring the park into compliance with the Wild and Scenic Rivers Act, and can be used to guide actions and evaluate the potential impacts of proposed improvement projects within the river corridor. In addition, the watershed on the Tuolumne Wild and Scenic River covers over 50 percent of Yosemite's backcountry areas and wilderness. This plan would be a comprehensive tool for watershed planning and management of sensitive areas within the Tuolumne River watershed. In addition, this plan would include much needed natural and cultural data that have not been previously compiled for the river corridor and its watershed. These data would be used to create effective and modern management tools such as river protection overlays and much needed compliance necessary for managing resources and visitor use in the entire Tuolumne Meadows area as well as the Tuolumne River corridor. The plan would also be an important tool to examine many outstanding issues with the complicated management of the Hetch Hetchy Reservoir, including water quality management and watershed issues with the City and County of San Francisco.

The development of the Tuolumne Wild and Scenic River Comprehensive Management Plan Environmental Impact Statement is currently in progress.

Project Name: Tuolumne Meadows Concept Plan

Description: The Tuolumne Meadows, at an elevation of 8,600 feet, is the Sierra's largest subalpine meadow. Current facilities in the Tuolumne Meadows area include a 304-site campground, a visitor center, a service station, a 104-bed lodge, food services, government and concession stable operations, employee housing, a wastewater treatment plant, and several administrative buildings. These facilities support approximately 5,000 park visitors and 200 park staff daily from May through October. Although improvement or relocation has been considered for many of these facilities, there is no comprehensive plan that looks at the entire Tuolumne Meadows area as a whole and determines the desired extent and location of development. A Concept Plan will define management objectives, including resource protection goals for the entire area, and it will identify boundaries for specific types of development. This will allow implementation of management objectives and appropriate facility construction as incremental funding becomes available.

The environmental compliance process for the Tuolumne Meadows Concept Plan is currently in progress.

Project Name: Environmental Education Campus Project

Description: Since 1972, Yosemite Institute (YI) has partnered with the National Park Service (NPS) to fulfill a shared mission of providing environmental educational opportunities for youth from diverse backgrounds, in Yosemite. YI's immersive environmental educational programs cover field science, arts, backpacking, and leadership, and are designed to complement California State Educational Content Standards. YI programs inspire a personal connection to the natural world and foster future generations of environmental stewards. Each year, YI's non-profit Yosemite programs serve over 13,000 students annually, and generate over 480,000 hours of visitor activities.

Yosemite Institute is a non-profit organization, and currently operates its environmental education campus at Crane Flat under a cooperative agreement with the park. The campus facilities are comprised of older buildings and structures that have been assembled over time and were not originally designed for educational purposes. These old buildings are deteriorating, in need of extensive repairs, and are barely adequate in terms of modern design standards for teaching, residential accommodations, or accessibility. NPS and YI are planning to create a new campus with upgraded/improved, sustainable facilities that will provide a more optimal learning environment and serve a greater number and diversity of students, for generations to come. The campus will be designed as an example of environmental sustainability, according to Leadership in Energy and Environmental Design (LEED) Green Building standards.

The goals of this project are to:

- Provide an environmental education campus location and program that serves the combined missions of Yosemite National Park and Yosemite Institute
- Facilitate multi-day educational programs that complement California State Standards and offer opportunities for research and study of the natural world

- Provide a campus facility that is sustainable in design and enables high quality, immersive, and safe educational experiences for students

- Promote development of future stewards of the environment and the National Park system

An Environmental Impact Statement is currently being prepared.

Project Name: Hodgdon Meadow Housing Area Trailer Replacement Project

Description: The proposed project is to construct a duplex in the Hodgdon Meadow Housing Area. This project would replace two obsolete trailers that were previously removed from the housing area. The new duplex, which would house up to eight park employees or two park employees and their families, will be located on a previously impacted site formerly occupied by one of the two trailers. This project is part of an agency-wide effort to replace trailers and other substandard housing with new, cost-effective, energy-efficient structures. Upgrades to the well water disinfection system will accompany the duplex construction.

An Environmental Assessment and Finding of No Significant Impact (FONSI) for this project have been completed.

Project Name: Parkwide Invasive Plant Management Plan

Description: Today there are over 150 non-native plant species in Yosemite National Park, which is about 10 percent of the park's flora. Of these, 28 species are listed for control by the U.S. Department of Agriculture, California Department of Food and Agriculture, or California Exotic Pest Plant Council. Species targeted for control in Yosemite include bull thistle, mullein, yellow star thistle, spotted knapweed, perennial pepperweed, purple vetch, rose and burr clovers, Himalayan blackberry, white and yellow sweet clover, non-native wildflowers, and escaped landscaping plants such as foxglove, ox-eye daisy, pink mullein, French broom, tree-of-heaven, and black locust.

The current control program includes using Global Positioning System (GPS) technology to map plant populations. Crews then remove plants using a variety of techniques, including hand-pulling. Treated areas are photographed and re-visited each year to assess the results and provide follow-up treatment.

The proposed Parkwide Invasive Plant Management Plan will define a set of comprehensive programs, including the following:

- Education and focused research.

- Prioritized prevention and control efforts using a variety of techniques and appropriate mitigation measures.

- Systematic monitoring and documentation of invasive plant status and the results of management efforts.

- Restoration of ecosystems altered by invasive plants.

Control methods being considered include some combination of the following: hand-pulling or using various machines to remove plants; releasing predatory insects or fungus to attack plants; educating users and staff about preventative measures; and using chemical treatments derived from natural products like vinegar, or manufactured chemicals like glysophate. Program goals include eradicating (or at least controlling) invasive plant species; preventing new invasions; restoring and maintaining desirable plant communities and healthy ecosystems; enhancing the visitor experience; and educating park staff, partners, and users.

An Environmental Assessment is currently being prepared for this plan.

Agency Name: Counties–Mariposa, Merced, Mono; National Park Service; U.S. Forest Service; California Department of Transportation; U.S. Department of Transportation.

Project Name: Yosemite Area Regional Transportation System

Description: The Yosemite Area Regional Transportation System is a collaborative, inter-agency effort begun in 1992 to evaluate the feasibility of a regional transportation system and to identify the best options for initial implementation and upkeep of such a system. The Yosemite Area Regional Transportation System Mission Statement is as follows:

Yosemite Area Regional Transportation System provides a positive alternative choice for access to Yosemite National Park for visitors, employees and residents. Yosemite Area Regional Transportation System service is not intended to replace auto access or trans-Sierra travel, but is intended to provide a viable alternative that offers a positive experience, maximizing comfort and convenience for riders while guaranteeing access into the park (Yosemite Area Regional Transportation Strategy 1999).

Project: Parkwide Campground Study

Description: The goal of the Parkwide Campground Study is to examine current campgrounds and their potential for expansion, as well as locate areas for possible new campgrounds. The study will be guided by the General Management Plan, the Merced Wild and Scenic River Comprehensive Management Plan, and the Yosemite Valley Plan, as well as scientific data on natural and cultural resources.

This plan development is currently pending congressional action.

STANISLAUS NATIONAL FOREST PROJECTS

Project: Forest Roads Analysis

Description: The Forest Roads Analysis (FRA) identifies issues, guidelines, and opportunities related to Forest roads management. The FRA will guide future management of Stanislaus National Forest roads and will not produce decisions on specific roads management actions. National Forest Roads Analyses are required by the USFS Chief's January 12, 2001 published roads policy, and as such, are not designed to address Off-Highway Vehicle (OHV) or Roadless Area issues (USFS 2003).

Project: Groveland Roadside Hazard Trees Decision Memo

Description: This project is for the cutting and removal of hazardous trees within administrative sites, adjacent to maintenance level 3-5 USFS system roads on the Groveland Ranger District. For each specific area, hazardous trees will be cut and removed, or cut and left in place. Implementation is expected in mid-2007.

INITIAL STUDY
(2005.0883E – Hetch Hetchy Communication System Upgrade Project)

A. PROJECT DESCRIPTION

Please refer to Section 2.0 of the EA/IS for the project description.

B. PROJECT SETTING

Please refer to Section 3.0 of the EA/IS for a description of the affected environment for each resource area.

C. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	Applicable	*Not Applicable*
Discuss any variances, special authorizations, or changes proposed to the Planning Code or Zoning Map, if applicable.	☐	☒
Discuss any conflicts with any adopted plans and goals of the City or Region, if applicable.	☐	☒
Discuss any approvals and/or permits from City departments other than the Planning Department or the Department of Building Inspection, or from Regional, State, or Federal Agencies.	☐	☒

Please refer to Section 3.7 for the discussion of project compatibility with existing zoning and plans.

D. SUMMARY OF ENVIRONMENTAL EFFECTS

The proposed project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

☒ Land Use	☐ Air Quality	☒ Geology and Soils
☒ Aesthetics	☐ Wind and Shadow	☒ Hydrology and Water Quality
☐ Population and Housing	☒ Recreation	☒ Hazards/Hazardous Materials
☒ Cultural Resources	☐ Utilities and Service Systems	☐ Mineral/Energy Resources
☒ Transportation and Circulation	☐ Public Services	☐ Agricultural Resources
☒ Noise	☒ Biological Resources	☒ Mandatory Findings of Significance

E. EVALUATION OF ENVIRONMENTAL EFFECTS

Topics:		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
1.	**LAND USE AND LAND USE PLANNING—Would the project:**					
a)	Physically divide an established community?	☐	☐	☐	☒	☐
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒	☐
c)	Have a substantial impact upon the existing character of the vicinity?	☐	☒	☐	☐	☐

Please refer to Section 3.10.1 in the EA/IS for the discussion of project impacts to land use and land use planning.

Topics:		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
2.	**AESTHETICS—Would the project:**					
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and other features of the built or natural environment which contribute to a scenic public setting?	☐	☒	☐	☐	☐
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area or which would substantially impact other people or properties?	☐	☐	☒	☐	☐

Please refer to Section 3.10.2 in the EA/IS for the discussion of project impacts to aesthetics.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
3. POPULATION AND HOUSING— Would the project:					
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒	☐
b) Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing?	☐	☐	☐	☒	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐

Please refer to Section 3.10.5 in the EA/IS for the discussion of project impacts to population and housing.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
4. CULTURAL RESOURCES— Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco *Planning Code*?	☐	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	☐

Please refer to Section 3.9.1 in the EA/IS for the discussion of project impacts to cultural resources.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
5.	**TRANSPORTATION AND CIRCULATION—Would the project:**					
a)	Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐	☐
b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways (unless it is practical to achieve the standard through increased use of alternative transportation modes)?	☐	☐	☒	☐	☐
c)	Result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks?	☐	☐	☐	☒	☐
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	☐	☒	☐	☐	☐
e)	Result in inadequate emergency access?	☐	☐	☐	☒	☐
f)	Result in inadequate parking capacity that could not be accommodated by alternative solutions?	☐	☐	☒	☐	☐
g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., conflict with policies promoting bus turnouts, bicycle racks, etc.), or cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity or alternative travel modes?	☐	☐	☐	☒	☐

Please refer to Section 3.10.4 in the EA/IS for the discussion of project impacts to transportation and circulation.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
6.	**NOISE—Would the project:**					
a)	Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐	☐
b)	Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	☐

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
c)	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	☐
d)	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐	☐
e)	For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☐	☒	☐
f)	For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	☒
g)	Be substantially affected by existing noise levels?	☐	☐	☐	☒	☐

Please refer to Section 3.8.7 in the EA/IS for the discussion of project impacts to noise.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
7.	**AIR QUALITY** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**					
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐	☐
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐	☐
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒	☐

Please refer to Section 3.8.6 in the EA/IS for the discussion of project impacts to air quality.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
8. WIND AND SHADOW—Would the project:					
a) Alter wind in a manner that substantially affects public areas?	☐	☐	☐	☐	☒
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	☐	☐	☐	☐	☒

Please refer to Section 3.3.5 in the EA/IS for the discussion of wind and shadow.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
9. RECREATION—Would the project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☐	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒	☐
c) Physically degrade existing recreational resources?	☐	☒	☐	☐	☐

Please refer to Section 3.10.3 in the EA/IS for the discussion of project impacts to recreation.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
10. UTILITIES AND SERVICE SYSTEMS—Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒	☐

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements?	☐	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒	☐

Please refer to Section 3.10.6 in the EA/IS for the discussion of project impacts to utilities and service systems.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact	Not Applicable
11. PUBLIC SERVICES— Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public services such as fire protection, police protection, schools, parks, or other services?	☐	☐	☐	☒	☐

Please refer to Section 3.10.7 in the EA/IS for the discussion of project impacts to public services.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
12. BIOLOGICAL RESOURCES— Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	☐

Please refer to Section 3.8.3 through 3.8.5 in the EA/IS for the discussion of project impacts to biological resources.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
13. GEOLOGY AND SOILS— Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	☐	☐	☒	☐	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	☐
iv) Landslides?	☐	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐	☐
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☐	☒
f) Change substantially the topography or any unique geologic or physical features of the site?	☐	☐	☒	☐	☐

Please refer to Section 3.8.1 in the EA/IS for the discussion of project impacts to geology and soils.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
14. HYDROLOGY AND WATER QUALITY— Would the project:					
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒	☐

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact	Not Applicable
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion of siltation on- or off-site?	☐	☒	☐	☐	☐
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☒	☐	☐	☐
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐	☐
f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐	☐
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	☐	☐	☐	☒	☐
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒	☐
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒	☐
j)	Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒	☐

Please refer to Section 3.8.2 in the EA/IS for the discussion of project impacts to hydrology and water quality.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
15.	**HAZARDS AND HAZARDOUS MATERIALS Would the project:**					
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐	☐

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐	☐
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	☐
h)	Expose people or structures to a significant risk of loss, injury or death involving fires?	☐	☐	☒	☐	☐

Please refer to Section 3.10.8 in the EA/IS for the discussion of project impacts to hazards and hazardous materials.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
16.	**MINERAL AND ENERGY RESOURCES— Would the project:**					
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒	☐
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒	☐
c)	Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	☐	☐	☒	☐	☐

Please refer to Section 3.10.9 in the EA/IS for the discussion of project impacts to mineral and energy resources.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
17. AGRICULTURE RESOURCES In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. **Would the project:**					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	☐
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland of Statewide Importance, to non-agricultural use?	☐	☐	☐	☒	☐

Please refer to Section 3.10.10 in the EA/IS for the discussion of project impacts to agriculture resources.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact	Not Applicable
18. MANDATORY FINDINGS OF SIGNIFICANCE— Would the project:					
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	☐
b) Have impacts that would be individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐	☐
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	☐

Please refer to Section 3.11 in the EA/IS for the discussion of Mandatory Findings of Significance.

F. MITIGATION MEASURES

Please refer to Section 4.0 in the EA/IS for the list or mitigation measures.

G. DETERMINATION

On the basis of this initial study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

_____
Bill Wycko,
Acting Environmental Review Officer
for
Dean L. Macris
Director of Planning

DATE_____

APPENDIX C
TUOLUMNE WILD AND SCENIC RIVER SECTION 7 DETERMINATION

The Section 7 evaluation for the Hetch Hetchy Communication System Upgrade Project is based on guidance provided in the Wild and Scenic Rivers Act: Section 7 Technical Report (Interagency Wild and Scenic Rivers Coordinating Council). The direct and adverse evaluation procedure is carried out for water resources projects licensed by the Federal Energy Regulatory Commission or other federally assisted water resources projects within the Wild and Scenic River Boundary of the designated river. The O'Shaughnessy Stream Gauge site, one of 32 sites that is part of the Proposed Action, is located within the banks of the Tuolumne River in Yosemite National Park within a segment of the river that holds scenic classification. Although the Tuolumne Wild and Scenic River Comprehensive Management Plan is still under development, this Section 7 determination process applies only to the O'Shaughnessy Stream Gauge site, as it is the only site that occurs in the bank of the Tuolumne River.

Table C-1
Section 7 Evaluation for the Hetch Hetchy Communication System Upgrade Project

Evaluation Criteria	Project Data
Define the Proposed Activity	
Project Proponent	San Francisco Public Utilities Commission (SFPUC), National Park Service – Yosemite National Park, United States Forest Service – Stanislaus National Forest
Geographic location of the project	The project sites are located in Stanislaus and Tuolumne counties. The O'Shaughnessy Stream Gauge site is located within the Lake Eleanor United States Geological Survey (USGS) Quad and 01N 20E Township and Range.
Project Description	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 the video and radio bandwidth to allow for future installation of voice radio systems, which could expand system coverage in the O'Shaughnessy, Cherry Lake, and Lake Eleanor areas above existing coverage; 4) provide the foundation infrastructure for housing NPS and FS communications equipment associated with their separate communications systems; and 5) provide the foundation infrastructure that could be used in the future to integrate HHW&P communication system with NPS, and FS communications.
Duration of the proposed activities	The proposed upgrade at the O'Shaughnessy Stream Gauge will take approximately one week. The contractor's initial survey of the site and end-of-project testing will not occur contiguously with the installation work, but may occur during the estimated 18-month construction period.

Table C-1 Section 7 Evaluation for the Hetch Hetchy Communication System Upgrade Project	
Evaluation Criteria	**Project Data**
Magnitude and/or extent of the proposed activities	The O'Shaughnessy Stream Gauge site would involve the installation of a rigid galvanized steel conduit antenna mast that would support a solar panel and a Yagi antenna on top of the existing stream gauge structure. The work would occur on the exterior of the building and necessitate interior electrical work.
Mitigation	Mitigation is incorporated into the Proposed Action. Please refer to Section 4.0 for mitigation measures incorporated into the Proposed Action.
Relationship to past and future management activities	The Proposed Action is subject to the 1980 Yosemite General Management Plan and the Stanislaus Forest Plan, as Amended.
Describe Whether the Proposed Activity Will Directly Alter Within-Channel Conditions	
The position of the proposed activity relative to the streambed and streambanks	Proposed upgrades at each of the Hetch Hetchy Communication System Upgrade Project sites are out of the Tuolumne River streambed and streambanks with the exception of the existing O'Shaughnessy Stream Gauge, which is located on the bank of the Tuolumne River.
Navigation of the river	Due to restriction applied through Park policy, river navigation is not applicable to the O'Shaughnessy Stream Gauge area of the Tuolumne River.
Any likely resulting changes in:	
Active channel location	No.
Channel geometry (cross-sectional shape, width, depth characteristics)	No.
Channel slope (rate or nature of vertical drop)	No.
Channel form (straight, meandering, or braided)	No.
Relevant water quality parameters (turbidity, temperature, nutrient availability)	The proposed upgrade at the O'Shaughnessy Stream Gauge would not result in turbidity, temperature, or nutrient availability impacts to the river. The Stream Gauge itself would not be altered; the proposed upgrade involves the installation of a rigid galvanized steel conduit antenna mast that would support a solar panel and a Yagi antenna on top of the existing stream gauge structure. All work would take place above the water surface.
Describe Whether the Proposed Activity Will Directly Alter Riparian and/or Floodplain Conditions	
The position of the proposed activity relative to riparian area and floodplain	The O'Shaughnessy Stream Gauge site is located within the bed and banks of the Tuolumne River.
Any likely resulting changes in:	

Table C-1 Section 7 Evaluation for the Hetch Hetchy Communication System Upgrade Project	
Evaluation Criteria	**Project Data**
Vegetation composition, age structure, quantity, or vigor	No vegetation would be removed at the O'Shaughnessy Stream Gauge site for the Proposed Action.
Relevant soil properties such as compaction or percent bare ground	The proposed action would not result in soil compaction or exposing bare ground.
Relevant floodplain properties such as width, roughness, bank stability, or susceptibility to erosion	The O'Shaughnessy Stream Gauge does not constrict the flow of the Tuolumne River. The proposed upgrade at this site would not result in changing the natural floodplain properties.
Describe Whether the Proposed Activity Will Directly Alter Upland Conditions	
The position of the proposed activity relative to the uplands	The Proposed Action is not located in the uplands and would not directly alter upland areas.
Relevant hydrologic properties such as drainage patterns or the character of surface and subsurface flows	The Proposed Action would not result in net new impermeable surfaces such that drainage patterns or the character of surfaces and subsurface flows would change. The proposed upgrade would result in the addition of an antenna to the existing stream gauge.
Potential changes in upland conditions that would influence archeological, cultural, or other identified significant scenic values	The O'Shaughnessy Stream Gauge site would involve the installation of a rigid galvanized steel conduit antenna mast that would support a solar panel and a Yagi antenna on top of the existing stream gauge structure. This would not influence archeological, cultural, or significant scenic values in uplands of the Tuolumne River.
Any likely resulting changes in:	
Vegetation composition, age structure, quantity, or vigor	No.
Relevant soil properties such as compaction or percent bare ground	No.
Evaluate and Describe Whether Changes in On-Site Conditions Can or Will Alter Existing Hydrologic or Biological Processes	
The ability of the channel to change course, re-occupy former segments, or inundate its floodplain	The project would not have any affect on the ability of the channel to change course, re-occupy former segments, or inundate its floodplain.
Streambank erosion potential, sediment routing and deposition, or debris loading	The project would not have any affect on the streambank erosion potential, sediment routing and deposition, or debris loading.
The amount or timing of flow in the channel	The project would not affect the amount or timing of flow in the Tuolumne River.
Existing flow patterns	The project would not affect existing flow patterns in the Tuolumne River.
Surface and subsurface flow characteristics	The project would not change surface and subsurface flow characteristics.

Table C-1 Section 7 Evaluation for the Hetch Hetchy Communication System Upgrade Project	
Evaluation Criteria	**Project Data**
Flood storage (detention storage)	The project would not have any measurable effect on river flood storage capability.
Aggregation and or degradation of the channel	The project is not expected to have a measurable effect on aggregation or degradation of the Tuolumne River channel properties.
Amphibian/mollusk needs	The project is not expected to have any measurable effect on amphibian/mollusk needs.
Species composition (diversity)	The project is not expected to have any measurable effect on species composition or diversity.
Biological Processes Such As:	
Reproduction, vigor, growth, and/or succession of streamside vegetation	There will be no brush clearing or removal of vegetation in the vicinity of the project site. The project is not expected to result in reduced streamside vegetation.
Nutrient cycling	The project is not expected to have an effect on the nutrient cycling process.
Fish spawning and/or rearing success	The project is not expected to have any effect on fish spawning and/or rearing success because the proposed upgrade occurs on land and on the existing stream gauge. All work would take place above the water surface.
Riparian-dependent avian species needs	The project is not expected to have any effect on riparian-dependent avian species needs.
Estimate the Magnitude and Spatial Extent of Potential Off-Site Changes	
Consider and Document:	
Changes that influence other parts of the river system	The project does not propose any actions that would change or influence other parts of the river system.
The range of circumstances under which off-site changes might occur (for example, as may be related to flow frequency)	The project does not propose any actions that would result in off-site changes.
The likelihood that predicted changes will be realized	There are no predicted off-site changes as a result of implementation of this project.
Specify processes involved, such as water and sediments, and the movement of nutrients.	Natural hydrologic processes along Tuolumne River would not be enhanced or degraded as a result of the Proposed Action.
Define the Time Scale Over Which the Above Effects Are Likely to Occur	
Review the above effects, looking independently at the element of time. Define and document the time scale over which the effects will occur	As noted above, the Proposed Action would have no effect on the river system, banks, floodplain, or upland area. Installation of the new antenna would occur on one week day. The contractor's initial survey of the site and end-of-project testing will not occur contiguously with the installation work, but may occur during the estimated 18-

Table C-1 Section 7 Evaluation for the Hetch Hetchy Communication System Upgrade Project	
Evaluation Criteria	**Project Data**
	month construction period.

EFFECTS OF THE PROPOSED ACTION ON OUTSTANDINGLY REMARKABLE VALUES

The Proposed Action, specifically the proposed upgrade at the O'Shaughnessy Stream Gauge would result in the installation of a new antenna on the existing stream gauge structure. The free-flowing character of the Tuolumne River would not be reduced as a result of the O'Shaughnessy Stream Gauge site upgrade. An assessment of the Proposed Action's effects specific to the O'Shaughnessy Stream Gauge site on Outstandingly Remarkable Values is provided in Table C-2.

SECTION 7 DETERMINATION

The Proposed Action includes the installation of an antenna to the existing O'Shaughnessy Stream Gauge structure. Free flow and natural fluvial processes would not be impacted as a result.

Table C-2 Effects of the Proposed Action on Outstandingly Remarkable Values in Segment 5 of the Tuolumne Wild and Scenic River Corridor	
Outstandingly Remarkable Value	**Effects of the Proposed Action**
Ecologic - From the alpine headwaters of the Tuolumne River, through the river's steep descent into the Sierra Nevada foothills, interactions among geologic, hydrologic, and biologic processes sustain a rare diversity of robust, interrelated, and largely intact ecosystems. The entire river corridor is either within or surrounded by designated Wilderness, which protects the ecological integrity of these systems. The unusual extent and influence of glaciation in the Tuolumne River corridor has resulted in extensive low relief areas, primarily meadows, separated by steep sections of river flowing over bedrock. This stairstep morphology, in combination with exceptional water quality, a seasonal flood regime, and a largely undisturbed river corridor, sustains systems that are remarkable in their size and diversity: • Tuolumne Meadows, Dana Meadows, and the meadows along the Lyell Fork comprise one of the largest and most extensive subalpine meadow/wetland complexes in the Sierra Nevada. In addition, the lower elevation meadow/wetland complex at Poopenaut Valley is unique in its relative lack of human impact and	The proposed upgrade at the O'Shaughnessy Stream Gauge site would have no effect on the ecological resources of the river. The upgrade involves the installation of an antenna on the existing stream gauge. All work would take place above the water surface. There would be no site disturbance or removal of vegetation.

Table C-2 Effects of the Proposed Action on Outstandingly Remarkable Values in Segment 5 of the Tuolumne Wild and Scenic River Corridor	
Outstandingly Remarkable Value	**Effects of the Proposed Action**
development compared to other low-elevation riparian areas in the Sierra Nevada. These meadow systems sustain an exceptional diversity of river-related habitat types. • Dramatic stairstep river morphology creates highly diverse river canyon communities below Tuolumne Meadows and below Hetch Hetchy Reservoir. Spectacular systems of falls, cascades, basins, riffles, and pools bounded by towering cliffs contribute to a remarkable diversity of largely intact habitat types.	
Sociocultural - The Tuolumne River's unique combination of prehistoric, historic, scenic, and recreational values distinguishes it from other rivers in the Sierra Nevada and throughout the nation. The sociocultural values of the Tuolumne River corridor extend back at least 6,000 years and span generations of diverse groups of people. Visible evidence testifies to the evolving importance of the river corridor as a seasonal hunting and gathering ground, a trans-Sierra trade and travel route, a destination for recreation and leisure, and a place to connect with nature in a wilderness setting. From prehistoric through modern times, people have developed powerful and enduring relationships with the Tuolumne River corridor. The corridor plays a significant role in maintaining cultural traditions among groups of American Indian people. In a contemporary context, the corridor engenders deep personal connections to the area and figures prominently in the lives, stories, and traditions of generations of visitors.	The proposed upgrade at the O'Shaughnessy Stream Gauge site would have no effect on the sociocultural resources of the river.
Scientific - The largely undisturbed river corridor provides invaluable opportunities to examine ecologic and sociocultural resources with high research value. The entire river corridor is either in or surrounded by designated Wilderness, which is critical to protecting the integrity and maintaining the scientific value of these resources. • Relatively intact Sierra river ecosystems provide crucial baseline data and basic information on how components of such natural ecosystems interact and respond to perturbation (e.g., climate change, decline of special-status species).	The proposed upgrade at the O'Shaughnessy Stream Gauge site would not disturb the river corridor and would have no effect on the scientific value of the river.

Table C-2 Effects of the Proposed Action on Outstandingly Remarkable Values in Segment 5 of the Tuolumne Wild and Scenic River Corridor	
Outstandingly Remarkable Value	**Effects of the Proposed Action**
• Some of the best evidence of glacial processes in the Sierra Nevada occurs along the river corridor. • Well-preserved prehistoric and historic archeological resources within the river corridor provide outstanding opportunities to research trade, travel, subsistence, and technological change that occurred over thousands of years.	
Segment 5: Prehistoric and American Indian Cultural - Pre-contact archeological sites represent possible year-round use by groups of American Indian people and are contributing features to the Hetch Hetchy Archeological District. Prehistoric resources important to the oral traditional history of American Indian people affiliated with the Tuolumne River are also contained within this segment.	The proposed upgrade at the O'Shaughnessy Stream Gauge site does not include any ground disturbance that could potentially result in encountering archeological sites. Mitigation measures are incorporated into the Proposed Action in the event archeological sites or artifacts are encountered.
Segment 5: Historic - Historic landscape features and structures provide evidence of early Euro-American settlement. Specific sites that are either eligible or potentially eligible for listing on the National Register of Historic Places include the Screech Trail and cabin ruins.	The proposed upgrade at the O'Shaughnessy Stream Gauge site would have no effect on historic landscape features and structures in the area.

Recommended:

Superintendent, Yosemite National Park Date

Approved:

Regional Director Pacific West Region, National Park Service Date

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Technical Memorandum

Subject: **Hetch Hetchy Communication System Technical Requirements**

The Proposed Project would provide the foundation system to expand communication coverage into the Cherry Lake, Lake Eleanor, and O'Shaughnessy Dam area. 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 in the future. The system upgrade would provide the foundation system that could allow for improved radio communications vital to the operation and security of HHW&P's utilities and support of FS and NPS operational activities, such as law enforcement, search and rescue, fire management, visitor and staff safety, and protection of forest and park resources. Currently HHW&P staff makes trips to many of the sites for data (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.

Timberline Engineering, Inc. prepared a planning and study report for the Hetch Hetchy Communication System Upgrade Project (2004) to evaluate system configurations that would replace the communications between Moccasin Powerhouse, Warnerville Switchyard, and Intake Switchyard. The study also looked at configurations to extend communications into the O'Shaughnessy and Cherry Lake areas where there are currently no reasonable fiber optic options. This memo is a summary of the microwave route planning conducted by Timberline to determine the sites for the Proposed Project.

The current microwave system backbone does not have sufficient capacity to provide the bandwidth required to support the needs of HHW&P (please refer to Section 1.0 for details of the Purpose and Need). The current microwave system backbone consists of Moccasin Powerhouse, Warnerville Switchyard, and Intake Switchyard through Moccasin Powerhouse Passive Reflector, a passive reflector at Warnerville Switchyard, and repeaters at Moccasin Peak, Duckwall Mountain, and Jones Point. A fiber optic cable is installed to connect Intake Switchyard with Holm Powerhouse and Kirkwood Powerhouse, and on HHW&P distribution lines between Intake Switchyard and Intake Radio Site.

Communication and connection between Moccasin Powerhouse (24/7 control point) and Intake Switchyard would require the identification of microwave repeater sites since these sites do not have a line-of-sight with one another. Operational selection criteria for microwave repeater site include a prominent location with line-of-sight to other project sites within its system, road access or foot access from a road turnout, and access to utility power. For the first hop out of Moccasin Powerhouse, the existing Moccasin Peak site was determined to

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be the only practical alternative.[1] Jones Point is the current solar-powered repeater site used for the first hop out of Intake Switchyard. Intake Radio Site is an existing utility-powered communications site (voice and SCADA radios) with fiber optic communications to Intake Switchyard, and is therefore identified as a candidate repeater site to replace the Jones Point site. For purposes of the new system, Jones Point would be replaced by Intake Radio Site, which is a site already developed with utility power, though currently not an existing microwave communication site. A new communication tower, modular communication shelter, and emergency generator would be installed in the undeveloped western portion of the Intake Radio Site. In addition, an existing transmission line connects Intake Radio Site and Intake Switchyard, allowing for the installation of fiber optic communications between these sites.

Duckwall Mountain is a solar-powered site with poor winter access and currently links Moccasin Peak and Intake Switchyard via the Jones Point site. A replacement site for Duckwall Mountain would need to have a line-of-sight to Moccasin Peak, Intake Switchyard, Cherry Tower Site, Lake Eleanor Dam Level Gauge, and O'Shaughnessy Dam Gallery. From an operational perspective, the Burnout Ridge site is proposed because it would have a line-of-sight to all of the sites noted above except for O'Shaughnessy Dam Gallery and Intake Switchyard. As mentioned above, the Intake Switchyard site can be connected to the Intake Radio Site via fiber optic communications, which in turn would connect to the Burnout Ridge site. The Burnout Ridge site has good access from Cherry Lake Road (Cherry Oil Road) and is reasonably close to an existing HHW&P electrical distribution line. Meeting the operational criteria listed above, Burnout Ridge is a suitable site to provide the communications needs for the Cherry and Eleanor areas while providing a link between Moccasin Powerhouse and Intake Switchyard. This site would replace the existing microwave radio repeaters on Duckwall Mountain and Jones Point, which have poor winter access and are served exclusively by solar power. The improved access and more reliable power would reduce risk to employees and improve reliability of the system. In addition, Burnout Ridge could be equipped with a voice radio repeater to provide improved two-way radio coverage into the Cherry Lake and Lake Eleanor areas.

Based on the selection of Burnout Ridge, a microwave repeater site is needed to communicate between Moccasin Powerhouse and O'Shaughnessy Dam. Because the O'Shaughnessy Dam Gallery does not have a line-of-sight to Burnout Ridge or any developed sites, it would be necessary to develop a new repeater site in a previously undisturbed area. It was considered desirable to select a site that would not be highly visible to the public, yet outside of designated Wilderness Area. Timberline determined that based on these criteria, a repeater site would need to be located in the vicinity of Poopenaut Pass. Poopenaut Pass is located in Yosemite National Park between the Hetch Hetchy Station Entrance near Camp Mather and O'Shaughnessy Dam. Poopenaut Pass would have a line-of-sight to O'Shaughnessy Dam Gallery to the northeast, and to Burnout Ridge to the northwest. The Poopenaut Pass site is located near a HHW&P electrical distribution line and an existing access road that is maintained year-round. The site would be located in an area within Yosemite National Park that would provide improved communications for the NPS and HHW&P. The Poopenaut Pass

[1] The connection between two microwave sites is called a "link" or a "hop".

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site would repeat the microwave signal from Burnout Ridge to the O'Shaughnessy area and provide the NPS and HHW&P with a voice radio repeater site for their needs.

The new sites would provide the foundation system to expand communication coverage into the Cherry Lake, Lake Eleanor, and O'Shaughnessy Dam area. The Proposed Project provides the bandwidth to allow for future installation of voice and radio systems to areas currently not served. The Proposed Project's foundation system would provide the following:

- Allow future connection of Moccasin Powerhouse to Warnerville Switchyard and Moccasin Peak.
- Allow Moccasin Powerhouse to connect to Intake Switchyard. Intake Switchyard is connected to Kirkwood Powerhouse and Holm Powerhouse via fiber optics. The Burnout Ridge site would serve to connect Moccasin Powerhouse to the new sites subsystem (described next).
- The new sites subsystem would use Burnout Ridge as a junction to connect Cherry Lake, Lake Eleanor, and O'Shaughnessy Dam to Moccasin Powerhouse.

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PRELIMINARY MITIGATED NEGATIVE DECLARATION

Date of this Notice: October 2, 2007

Lead Agency: City and County of San Francisco, Planning Department
1650 Mission Street, Suite 400, San Francisco, California 94103

Agency Contact Person: Jamie Dean **Telephone:** (415) 575-9028

Project Title: 2005.0883E – Hetch Hetchy Communication System Upgrade Project

Project Sponsor: San Francisco Public Utilities Commission
1145 Market Street, 5th Floor, San Francisco, California 94103

Agency Contact Person: Antonia Fairbanks **Telephone:** (415) 554-3238

Project Address: Tuolumne and Stanislaus Counties (on City and County of San Francisco extraterritorial lands under the terms of the Raker Act)

Assessor's Block and Lot: Not Applicable

City and County: Unincorporated lands, Stanislaus and Tuolumne counties

Project Description: Hetch Hetchy Water & Power (HHW&P), a subsidiary of the San Francisco Public Utilities Commission (SFPUC), in cooperation with both the U.S. Department of the Interior National Park Service (NPS) and the U.S. Department of Agriculture Forest Service (USFS), is proposing a communications system upgrade and replacement project. The communications system is used for the operation of HHW&P's water supply and electric utility system, which includes facilities in the upper Tuolumne River watershed of Yosemite National Park and the Stanislaus National Forest in the Sierra Nevada. The purpose of the proposed project is to: 1) vacate the 2 Gigahertz (GHz) band currently being used, per Federal Communications Commission requirements; 2) replace and upgrade the aging communications system with an improved system; 3) provide the video and radio bandwidth to allow for future installation of voice radio systems, which could expand system coverage in the O'Shaughnessy, Cherry Lake, and Lake Eleanor areas beyond existing coverage; and 4) provide the foundation infrastructure for housing NPS and USFS communications equipment associated with their individual communications systems. Twenty-nine of the 32 proposed sites would be located at existing facilities, while three would be new sites: Cherry Tower Site, Burnout Ridge, and Poopenaut Pass. Cherry Tower Site is located on land within Stanislaus National Forest and managed by HHW&P under terms of the Raker Act. Burnout Ridge is located within Stanislaus National Forest and would require a Forest Plan Amendment and Special Use Permit. The Poopenaut Pass site is located within Yosemite National Park and would require issuance of a right of way permit from the NPS. If approved, construction and installation of the communication system upgrade would likely begin in September 2008.

Building Permit Application Number(s): Not Applicable

THIS PROJECT COULD NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT. This finding is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15064 (Determining Significant Effects), 15065 (Mandatory Findings of Significance), and 15070 (Decision to Prepare a Negative or Mitigated Negative Declaration), and the following reasons as documented in the Initial Evaluation (Initial Study) for the project, which is attached. Mitigation measures are included in this project to avoid potentially significant effects: See Section 4.0.

cc: Antonia Fairbanks, Environmental Project Manager, SFPUC
Distribution List

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

www.nps.gov/yose/planning/

As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public land and natural resources. This includes fostering sound use of out land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works ensure that their development is on the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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