

Memorandum of Agreement  
Between  
City and County of San Francisco  
San Francisco Public Utilities Commission  
and  
National Park Service  
Yosemite National Park  
for  
Comprehensive Management of Watersheds Supplying the San Francisco Regional Water  
System within Yosemite National Park

This Memorandum of Agreement (MOA) is hereby entered into by and between the National Park Service (NPS) and the San Francisco Public Utilities Commission (SFPUC), referred to collectively herein as "the Parties."

**ARTICLE I – BACKGROUND AND OBJECTIVES**

The Hetch Hetchy watershed is part of the Tuolumne River basin and is located entirely within Yosemite National Park (YNP). The headwaters of the Tuolumne River drain into Hetch Hetchy Reservoir. This watershed provides over 80% of the drinking water to the 2.5 million people in the San Francisco Bay Area and is managed by the National Park Service (NPS).

The SFPUC is not required to filter its Hetch Hetchy water supply in part due to:

- The exceptionally high quality water produced by the Hetch Hetchy watershed.
- Ongoing and effective source water protection provided by NPS watershed management.

This combination meets the U.S. Environmental Protection Agency's and the California Department of Health Service's criteria for filtration avoidance.

The following are approved standby water sources for the San Francisco Regional Water System (SFRWS):

- The Lake Eleanor watershed.
- Tuolumne River sub-watershed between O'Shaughnessy Dam and Early Intake.
- Cherry Creek sub-watershed below Lake Eleanor.

This MOA includes the management of the portions of these watersheds that are within YNP.

Under the Raker Act, the grantee (SFPUC) is required to reimburse the Department of Interior (NPS) for the cost of the inspection necessary to secure compliance with the sanitary regulations set forth in section 9(a) of the Act. The text of section 9(a) of the Raker Act is set forth in Appendix A.

The SFPUC is required to demonstrate a "watershed control program" that complies with the U.S. Environmental Protection Agency's (USEPA) and the California Department of Health Service's (CDPH) filtration avoidance regulations. In part, this is through "...written agreements with the landowners within

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the watershed that it can control all human activities which have an adverse impact on the microbiological quality of the source water." Filtration avoidance regulations are found in Title 40 Code of Federal Regulations (CFR), Part 141, Subpart H (40CFR §141.71), and in the California Code of Regulations (CCR), Title 22, Section 64652.5(e)(3), (22CCR § 64652.5). Relevant Title 22 sections are in Appendix B.

The SFPUC and the NPS have a long history of cooperation with the common goal of protecting water quality, environmental resources, and security for essential facilities. A goal of the Source Water Protection Program is for the Hetch Hetchy water supply to maintain its filtration avoidance designation. This Agreement formalizes these cooperative efforts and meets regulatory requirements in 40CFR §141.71 and 22CCR § 64652.5 for a "written agreement with the landowner." Another goal is to manage all the SFRWS supply watersheds within YNP to mitigate potential sanitary concerns and meet environmental stewardship objectives.

The previous Agreement (2005 through 2010) was developed to meet the filtration avoidance requirement for a "written agreement with the landowner." The scope of this Agreement (2010 through 2015) is expanded to recognize ongoing Environmental Stewardship and Security programs.

This Agreement serves as the mechanism for:

1. **SOURCE WATER PROTECTION (SWP) PROGRAM:** Watershed controls to preserve the Hetch Hetchy watershed as a high quality drinking water source and to maintain its filtration avoidance status. This includes watershed management for source water protection and reimbursement for implementation of the Raker Act water quality provisions, along with other source water protection initiatives the SFPUC may agree to fund. This program also includes management of the SFRWS standby water source watersheds.
2. **ENVIRONMENTAL STEWARDSHIP (ES) PROGRAM:** Collaborative efforts to improve environmental stewardship of the Upper Tuolumne River ecosystem that affect, or are affected by, SFPUC facilities and operations within the Yosemite National Park (YNP). These efforts will incorporate policies described in the SFPUC Water Enterprise Environmental Stewardship Policy, and will also assist in carrying out stipulations entered into by the SFPUC with the Department of the Interior that were required as part of the approval of a third generator at Kirkwood Powerhouse under provisions of the Raker Act.
3. **SECURITY (S) PROGRAM:** Providing security for facilities essential to SFPUC operations within the YNP. The Security Program in Appendix D is CONFIDENTIAL and relates to Homeland Security.

SFPUC coordination and funding for the Source Water Protection Program, Environmental Stewardship Program, and the Security Program are provided for through this Agreement.

## **ARTICLE II – LEGAL AUTHORITY AND POLICY COORDINATION**

NPS is authorized by 16 U.S.C. 6 to accept patented lands, rights-of-way over patented lands or other lands, buildings, or other property within the various national parks and national monuments, and moneys which may be donated for the purposes of the national park and monument system.

### Source Water Protection

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Source water protection is integral to the SFPUC and is regulated by federal and state laws. This Agreement deals with the application of Raker Act section 9(a) related to recovery of costs for protection of water quality, and SFPUC compliance with state and federal drinking water quality regulations through a watershed management agreement.

The Raker Act of 1913 (*H. R. 7207*) obligates the NPS to implement the water quality provisions of the Act through the continued development and enforcement of regulations to protect source water quality. The Raker Act requires reimbursement to the NPS for the cost of the inspection necessary to secure compliance with the sanitary regulations set forth in section 9(a), as well as an annual payment of \$30,000.

The NPS develops and implements additional watershed protection policies and regulations, which are coordinated with the SFPUC. These additional policies and regulations constitute, in combination with the Raker Act water quality provisions, a watershed control program that meets the filtration avoidance requirements of 40CFR §141.71 and 22CCR § 64652.5 for the Hetch Hetchy watershed and achieve the water quality objectives for the SFRWS standby water sources. The watershed control program ensures that the high quality of the Hetch Hetchy source water is maintained.

#### Environmental Stewardship

In June 2006, the SFPUC adopted the Water Enterprise Environmental Stewardship Policy (provided in Appendix C). This policy integrates into the SFPUC's water system planning and operation, including dams and diversions. The policy:

- Establishes a management directive to protect and rehabilitate ecosystems that affect or are affected by SFPUC water system operations, within the context of meeting water supply, power generation, water quality, and minimum instream flow requirements.
- Directs the SFPUC to develop, implement, and monitor instream flow releases such that they mimic, to the extent consistent with the SFPUC mission, existing agreements, and applicable state and federal laws, "...the variation of the seasonal hydrology (e.g., magnitude, timing, duration, and frequency) of their corresponding watersheds in order to sustain the aquatic and riparian ecosystems upon which native fish and wildlife species depend."

In response to adoption of the Water Enterprise Environmental Stewardship Policy, the SFPUC initiated the Upper Tuolumne River Ecosystem Project with the broad goal of conducting a set of long-term, collaborative, science-based investigations designed to (1) characterize historical and current river ecosystem conditions; (2) assess their relationship to SFPUC operations; and (3) provide recommendations for improving natural ecosystem conditions on a long-term, adaptively managed basis. The study area includes main stem reaches of the Upper Tuolumne River and major tributaries.

#### Security

The Raker Act granted the City and County of San Francisco rights of way to construct, operate, and maintain water and power (Project) facilities in YNP. NPS has exclusive federal jurisdiction for law enforcement within YNP, including the protection of Project facilities. The State of California and the US Department of Homeland Security (DOHS) has determined that Project facilities are critical infrastructure.

Both the SFPUC and NPS recognize the recreational opportunities available to the public in the vicinity of Project facilities within YNP and the need to maintain reasonable public access. NPS implements a management strategy that provides reasonable security for Project facilities balanced with appropriate public access. The Security Program identifies measures to prevent and respond to attacks on Project facilities within YNP.

### ARTICLE III – KEY OFFICIALS

A. Unless otherwise designated, the NPS and the SFPUC designate the following individuals as principal contacts for the work outlined in this Agreement:

1. For the NPS:

- (a) Hetch Hetchy Program Manager: To facilitate implementation of this agreement, the SFPUC funds a full-time NPS Hetch Hetchy Program Manager (HHPM) position. The HHPM is the primary NPS liaison between the NPS and SFPUC for the Source Water Protection and Environmental Stewardship programs.

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- (b) Security Program Manager: To facilitate implementation of this agreement, NPS designates a Security Program Manager (SPM). The SPM is the primary NPS liaison between the NPS and SFPUC for the Security Program and is the Chief of YNP's Visitor and Resource Protection Division. The SPM shall have appropriate security clearance.

Charles Cuvelier  
Division of Visitor and Resource Protection  
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Email: Charles\_Cuvelier@nps.gov

2. For the SFPUC:

- a) Hetch Hetchy Water and Power (HHWP) Division Manager: To facilitate implementation of this agreement, the SFPUC designates the HHWP Division Manager as the manager of this Agreement.

Margaret Hannaford  
Hetch Hetchy Water and Power  
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Moccasin, CA 95347  
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Email: mhannaford@sfwater.org

- b) HHWP Facilities and Systems Maintenance Manager: To facilitate implementation of this agreement, the SFPUC designates this position as the operational contact for the Security Program.

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- c) SFPUC Homeland Security Director: To facilitate implementation of this agreement, the SFPUC designates this position to provide administrative oversight and program management for the Security Program.

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San Francisco, CA 94103  
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- d) Water Quality Division (WQD) Forester: To facilitate implementation of this agreement, the SFPUC designates this position as the primary contact for the Source Water Quality Protection Program and sanitary surveys.

Tom Francis  
Water Quality Division  
c/o Hetch Hetchy Water and Power  
PO Box 160  
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Telephone: 209-989-2509  
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- e) Natural Resources Division (NRD) Manager: To facilitate implementation of this agreement, the SFPUC designates NRD Manager as the primary contact for the Environmental Stewardship Program.

Tim Ramirez  
Natural Resource Division  
San Francisco Public Utilities Commission  
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- f) HHWP Right of Way Maintenance Manager: To facilitate implementation of this agreement, the SFPUC designates this position as the primary contact for Hetch Hetchy Water and Power operations, right of way issues, and land management.

Mike Vroman  
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3. Joint Watershed Working Group: The Watershed Group consists of, at a minimum, one representative from each organization/division listed below:

YNP Superintendent's Office, HHPM  
YNP Business and Revenue Management Division  
YNP Planning Division  
YNP Resources Management and Science Division  
YNP Interpretation and Education Division  
YNP Facilities Management Division,  
YNP Visitor and Resource Protection Division, SPM  
SFPUC Hetch Hetchy Water and Power Division  
SFPUC Water Quality Division  
SFPUC Natural Resources and Lands Management Division

- B. **Coordination Meetings** – The NPS HHPM and SPM meet with the relevant SFPUC staff quarterly for program coordination and review. The Watershed Group will meet annually in March in Moccasin for Source Water Protection and Environmental Stewardship program reviews. The Security Program review will be conducted separately in Moccasin each March. Program reviews will cover work performed in the prior calendar year, work planned for the current calendar year, and work proposed for the following calendar year. If program managers or other key staff change, new staff will attend the meeting and introductions will be made.
- C. **Changes in Key Officials** – If the NPS or the SFPUC make any permanent change in a key official, notice to the other party must be provided.

#### ARTICLE IV – STATEMENT OF WORK

- A. **Program Management** - The HHPM and SPM serve as the primary NPS liaisons to the SFPUC to ensure that the programs are coordinated and successfully implemented. Their duties include the following:
1. Ensure the timely preparation and submission of annual reports, budgets, invoices, and quarterly reports.
  2. Work with project managers in the NPS and SFPUC to initiate, coordinate, and fulfill compliance requirements.
  3. Coordinate quarterly, annual, and other meetings as needed.

4. Coordinate special project completion.
5. Interact frequently with SFPUC staff and NPS management and staff in all divisions.
6. Ensure the timeliness and quality of work performed under each program.
7. Provide annual and quarterly program reviews to the SFPUC.

**B. Program Elements** - Each program shall include core tasks and, as required, special projects.

1. Core Tasks are continuing elements that are performed each year under this Agreement. Core tasks constitute the principle elements for each program.
2. Special Projects may be performed based on the shared needs of both the SFPUC and NPS. Special projects may be necessary to supplement core tasks to address new, or changed, conditions. Special projects have limited time duration and may include studies, infrastructure improvements, or funding for equipment. Special projects are jointly developed and funded through the annual budget request for each program.
3. Emergency conditions (especially for the Security Program) may require core task modifications or special projects that are beyond the scope of the annual budget. NPS can submit out-of-cycle funding requests under these conditions to the SFPUC.

**C. Core Tasks**

1. SOURCE WATER PROTECTION

A goal of the Source Water Protection Program is to maintain filtration avoidance designation (or unfiltered status) for the Hetch Hetchy watershed. Another goal is to manage the affected watersheds (Hetch Hetchy and SFRWS standby water sources) within YNP to mitigate potential sanitary concerns. This includes the following SFPUC and NPS activities:

- NPS Watershed Patrols and Enforcement of Regulations – Sufficient NPS patrols are conducted to enforce regulations designed to mitigate and/or prevent water contamination.
- NPS Visitor Education – On site and off site visitor education and information programs are conducted so that national park visitors to the Hetch Hetchy watershed understand regulations and practice limited impact wilderness use techniques in order to prevent degradation of drinking water quality. Visitors are informed that the watershed is a source of drinking water for the San Francisco Bay Area and of their important role in protecting the drinking water supply from microbiological contamination.
- NPS Facilities – Facilities within the Hetch Hetchy watershed, including trails, are constructed, operated and maintained to mitigate and/or prevent water contamination.
- Sources of Contamination – Collaborative efforts between the NPS and the SFPUC to identify potential sources of drinking water contamination and actions to eliminate or mitigate the sources.

The following NPS core tasks are continuing elements of the Source Water Protection Program.

a) Visitor and Resource Protection

Patrol and Enforcement in Hetch Hetchy (Canyon Ranch), White Wolf, Tuolumne Meadows, and Wilderness— Patrols and visitor contacts will concentrate on prevention of microbiological contamination through prevention of:

- Improper disposal of human waste
- Camping too close to water
- Swimming and bathing in Hetch Hetchy Reservoir and the tributaries within one mile of the reservoir
- Stock groups tying or tethering too close to water
- Improper washing of dishes, clothes, etc.
- Other unauthorized or illegal activities

The Lake Eleanor ranger will supervise the seasonal operation of the Cherry Lake contact station with support from the SFPUC and the Stanislaus National Forest. The station will be staffed with available personnel during projected peak periods of wilderness and watershed entries to maximize educational contacts.

b) Visitor Contact – Wilderness Permits and Wilderness Centers

Wilderness Permits – The Wilderness Permit system is the park's primary means of controlling numbers of people in the watershed. Trailhead quotas enforced by wilderness permits keep overnight usage within appropriate limits. This permit requirement also serves as the primary tool in contacting and educating overnight visitors. In the process of obtaining these mandatory permits, at least one member of every party visiting the area sees watershed and water quality displays. They are fully briefed on regulations pertinent to campsite selection, human waste disposal, and other regulations which help protect water quality including proper campfire use, pack stock regulations, and protection of vegetation and soils through proper trail and campsite use, and must sign their permit acknowledging that they will be responsible for their party's behavior. The permit system includes a reservation component which is used to send pre-trip information to watershed users. Day hikers also use Wilderness Centers for trip planning and information, and receive water quality messages. Signs posted at trailheads leading into the Hetch Hetchy watershed will inform visitors that they are entering the watershed of a drinking water supply.

c) Wilderness Education

Visitor Education – Water quality protection will be an integral part of all internal and external programs designed to provide education to Wilderness users. Wilderness education includes contacts in the field, contacts in wilderness centers, interpretive programs, and outreach programs such as Wildlink. Signage, displays and brochures will contain current water quality protection messages targeting public use, and staff training will include sessions focused on information, education and enforcement techniques.

d) Hetch Hetchy Entrance Station

- *Visitor Contact* – Depending on weather, the entrance station will be open and staffed from the beginning of April through the end of October. In addition to collecting fees, providing general information regarding the park, educating visitors on the park rules and regulations, and issuing Wilderness permits, staff at the Hetch Hetchy Entrance Station provide information to the park visitors regarding the Hetch

Hetchy reservoir as a drinking water source and protection of water quality. Hikers issued wilderness permits for trips into the Hetch Hetchy watershed are informed that they will be in the watershed of a drinking water supply. They will be fully briefed on all Wilderness regulations and protocols, especially those designed to protect water quality.

- *Patrol Coverage* – Watershed patrols conducted concentrate on prevention of microbiological contamination. Visitors will be educated to properly dispose of human waste and not camp too close to water. They will be reminded that swimming and bathing are prohibited in Hetch Hetchy Reservoir and in tributaries within one mile of reservoir, and that proper washing of dishes and clothing is essential. Stock users will be prevented from tying or tethering stock too close to water.

e) Interpretation

Roving Visitor Contact and Visitor Education – Water quality protection will be an integral part of all interpretive walks, talks, and evening programs provided in the Hetch Hetchy watershed. Water quality protection will also be included in exhibits, waysides, and publications provided for the Hetch Hetchy watershed where appropriate. The staff of the Tuolumne Meadows and Big Oak Flat Visitor Centers will inform visitors that they are in, or will be entering, a watershed that provides drinking water during formal and informal visitor contacts; contact examples include roving trails, campgrounds, guided walks, and school programs.

f) Trails Maintenance and Stock Management

Maintenance – Trails are maintained in the watershed to minimize erosion and sedimentation. Water bars and other erosion control structures will be installed and maintained to NPS standards. Trail work will be done throughout the watershed with the highest priority given to trails with the worst resource impacts. Corrals will be managed to minimize contamination to watercourses. Manure will be appropriately managed and removed from all corrals during, and at the end of each season.

g) Facilities Management

Custodial Services – The public restrooms at O'Shaughnessy Dam and the Hetch Hetchy Backpackers Campground will be cleaned, garbage and litter collected, and horse manure removed from the top of O'Shaughnessy Dam daily during the heavy-use recreation season. Adequate toilet facilities will be provided and maintained at Cathedral Lakes parking area, Mammoth View parking area, and Tuolumne Meadows Visitors Center. Additional toilet facilities may be provided and maintained as mutually agreed.

h) Utilities

Wastewater Treatment – Costs will be shared for the collection, treatment, monitoring, and disposal of wastewater in the Hetch Hetchy watershed and for laboratory testing related to water quality. This will be achieved through the operation and maintenance of the Tuolumne Meadows Wastewater Treatment Plant and Wastewater Collection System, toilets at visitor areas (e.g. Mammoth View and Cathedral Lakes trailheads) in the Tuolumne Meadows area, and wastewater collection and treatment at Glen Aulin High Sierra Camp. Wastewater and toilet facilities will be operated to prevent watershed contamination.

i) Resources Management

The water quality impacts of potential pollution sources in the Hetch Hetchy watershed will be monitored and evaluated. Based on the results, NPS scientists will propose and implement measures to improve water and protect water quality.

Monitoring and restoration activities will be undertaken to prevent contaminants and erosion-generated materials from entering Hetch Hetchy watershed water courses. Examples include removing inappropriate campsites, mitigating stock use impacts, removing trash and charcoal near water sources, and restoring natural hydrological processes.

2. ENVIRONMENTAL STEWARDSHIP

Environmental stewardship programs are collaborative and cooperative efforts between the SFPUC and NPS to manage water quality and the environmental resources for the Tuolumne River watershed within the YNP boundary to protect these resources for future generations. The goal of the Environmental Stewardship Program is to implement and support regulatory and policy requirements and initiatives. The NPS and SFPUC will collaborate to work within the Upper Tuolumne River in areas that affect or are affected by the Hetch Hetchy Project. Basic work includes efforts to describe management goals for the Poopenaut Valley ecosystem and assistance with inventory and monitoring of species in the Tuolumne River corridor.

The following core tasks are continuing elements of the Environmental Stewardship Program.

a) Raker Act 1987 Stipulation for Canyon Power Project

The U.S. Department of Interior (USDI) established stipulations under authority granted in the Raker Act to regulate minimum instream flows for the two primary Hetch Hetchy Project dams (Eleanor and O'Shaughnessy). The USDI and SFPUC agreed in the 1987 "Stipulation for O'Shaughnessy Dam" on volumes of water to be released in addition to minimum flows. The specific schedules for releasing these volumes of water (over and above the minimum flows) were to be based on recommendations from US Fish and Wildlife Service (USFWS). However, final resolution was not reached with USFWS on these specific schedules.

The USDI, USFWS, and SFPUC agreed to re-examine this issue in 2006 within an ecosystem-based context. NPS and SFPUC started river research and an ecosystem-based instream flow study in 2006. This was done as part of the Upper Tuolumne River Ecosystem Project, in collaboration with work conducted by the NPS. SFPUC funded the NPS portion of the work through the 2005-2010 Hetch Hetchy Watershed Protection Agreement. The NPS portion of this work may continue to be funded via the 2010-2015 Agreement, as needed and determined by the SFPUC. This Agreement is in concert with development and implementation of revised stream flow provisions required by the approval of Raker Act rights of way by the Department of Interior within the YNP, and as specified by subsequent stipulations.

b) Looking Downstream

The NPS Looking Downstream Project focuses on understanding and developing ecosystem management guidance for the Poopenaut Valley area, three miles downstream from O'Shaughnessy Dam on the Tuolumne River in YNP. The project supports the goals and/or requirements of the Water System Improvement Program's Programmatic

Environmental Impact Report, the Water Enterprise Environmental Stewardship Policy, and the 1987 Stipulation associated with the approval of the SFPUC's third unit at the Kirkwood Powerhouse by the Department of the Interior under the Raker Act.

c) Amphibian and Reptile Studies

The NPS Amphibian Survey project directly assists the SFPUC and U.S. Forest Service in conducting ongoing monitoring of amphibian and reptile populations within the reach of the Tuolumne River between O'Shaughnessy Dam and Cherry Creek. NPS provides knowledgeable, biologists to assist with field surveys, habitat mapping, and report writing and review. The results from this project will be used in implementing the Water Enterprise Environmental Stewardship Policy and the 1987 Stipulation.

3. SECURITY

Operational aspects and core tasks for the Security program are in CONFIDENTIAL Appendix D. The initial Security Program budget is in Appendix E. Appendix D and the following listed documents are not available for public review for Homeland Security reasons and are exempt from disclosure under the Freedom of Information Act.

- Security Program Annual Work Plan
- Security Program Quarterly reports

D. **Special Projects**

One time projects may be designated in the future, based on the shared needs of both the SFPUC and NPS for any of the programs and the availability of SFPUC funding for such programs.

1. Source Water Protection - Special projects are intended to address or mitigate specific issues. Generally, these issues are identified in the SFPUC watershed sanitary survey updates.
2. Environmental Stewardship - One time projects may be designated based on the shared needs of both the SFPUC and NPS, and recommendations from current studies.
3. Security - special projects for the Security Program are CONFIDENTIAL. Details for Security Program special projects are not available for public review for Homeland Security reasons and are exempt from disclosure under the Freedom of Information Act.

E. **Reports** - The HHPM and SPM submit quarterly reports for each program to the SFPUC. The Security report may be forwarded to the Department of Homeland Security (DHS) by the SFPUC. These quarterly reports track annual work plan implementation, spending, and coordination for each program.

NPS Annual Reports for the Source Water Protection and Environmental Stewardship programs contain the following sections:

Summary	Highlights from the current reporting year and recommendations for the following year.
Program Description	<ul style="list-style-type: none"> <li>• Mission</li> <li>• Description of the program and its objectives.</li> <li>• Policy changes or issues unique to the reporting year.</li> <li>• List of the year's core tasks and special projects.</li> </ul>
Implementation	The work actually performed including results as they relate to stated objectives.
Analysis	An evaluation of overall program effectiveness including work performed and major deviations from work plans (what and why).

Each program is reported separately. All reports for the Security Program shall be CONFIDENTIAL, Homeland Security related, and shall not be available for public review. The Security Program reports are exempt from disclosure under the Freedom of Information Act.

The SFPUC understands it may have access to non-public security-related information that NPS determines is confidential. The SFPUC agrees that all such information potentially confidential shall be held in confidence, subject to all state and federal freedom of information laws and the San Francisco Administrative Code section 67.24(e), and except as required to perform and fulfill the requirements of this agreement. In the event that any third party seeks information from the City, the SFPUC shall promptly notify NPS of such request. NPS may then approve release of information in writing or seek any appropriate relief quashing such request.

F. **Calendar** - Each program (Source Water Protection, Environmental Stewardship, and Security) shall be planned, reported, reviewed, budgeted, and invoiced separately.

Calendar years (January 1 to December 31) shall be used for implementation and reporting. This coincides with regulatory reporting requirements. Annual budget requests, work plans, budgeting, and payments on invoices shall be based on the SFPUC's fiscal year (July 1 through June 30).

Quarterly reports for each program are due to the SFPUC January 15, April 15, July 15, and October 15 of each year. The NPS Program Managers and HHWP Division Manager (or designee) meet in Moccasin each February, May, and August for program coordination.

Date	Task
January 15	HHPM and SPM provide quarterly program reports to the SFPUC.

Date	Task
February 1	HHPM provides annual reports for the SWP and ES programs to the SFPUC. The reports cover the work performed during the prior calendar year.
February	Coordination meeting with the HHPM and SPM in Moccasin.
March	Annual meeting and program reviews occur in Moccasin. HHPM coordinates the program reviews.
April 15	HHPM and SPM provide quarterly program reports to the SFPUC.
May	Coordination meeting with the HHPM and SPM in Moccasin.
July 1	<p>NPS separately invoices the SFPUC for the <u>current</u> (i.e. new) fiscal year for each of the three programs in this Agreement. This is for the final work plan funded by the SFPUC.</p> <p>SFPUC payment is due to the NPS for the <u>current</u> fiscal year by August 1</p>
July 15	HHPM and SPM provide quarterly program reports to the SFPUC.
August	Coordination meeting with the HHPM and SPM in Moccasin.
September 1	<p>HHPM and SPM provide the preliminary budget proposal for each program for the <u>next</u> SFPUC fiscal year by September 1.</p> <p>NPS and SFPUC meet as required in September to review proposed new core tasks or special projects, review changes to existing core tasks or special projects, and agree on the final NPS budget proposals to SFPUC; establish implementation dates; review/update the five-year plan; and to cover any other quarterly coordination meeting items.</p>
September 30	SFPUC provides final comments on preliminary budget proposals for each program to NPS by September 30.
October 15	<p>The NPS provides final budget for the <u>next</u> fiscal year for each program to the SFPUC by October 15.</p> <p>HHPM and SPM provide quarterly program reports to the SFPUC.</p>

## **ARTICLE V – NPS BUDGET REQUEST**

The annual NPS budget requests cover work to be performed during the next SFPUC fiscal year (July 1 – June 30). A separate budget request shall be made for each program. Each request shall contain individual submittals for each program element (core task or special project). Typical submittal components include:

1. Description
  - SFPUC Program Identification (i.e. SWP, ES, or S)
  - Type of proposal: core task or special project
  - Title of core task or special project
  - Division & Branch
  - Start and finish date
  - Program Manager
  - Requester
2. Statement of Work
3. Justification
4. NPS Personnel Services
5. NPS Contract Services
6. Equipment, Material, and Other Costs
7. Total Funding Requested
8. YNP Superintendent Approval

Additional information and justification may also be included, such as more detailed scope, objective(s), and existing and desired equipment and staffing levels, which may help in determining funding priorities.

NPS submits a preliminary budget request for each core task or special project to the SFPUC for review and comment. After resolving comments, NPS then submits a final budget request for each program (refer to section 5.4, September 1 - October 15).

The first year baseline budget for core tasks under this Agreement is in Appendix E, which is the approved fiscal year 2010-2011 budget. Ensuing years are estimates based on projected cost-of-living increases for salaries and supplies (assumed at 5% per year). Each ensuing year budget requires approval by the SFPUC as outlined in Article IV.F, Article IX, and this Section.

Each of the three programs is budgeted separately. The Security Program activities are CONFIDENTIAL, Homeland Security related, and shall not be available for public review. Consequently, Appendix D shall not be available for public review and is exempt from the Freedom of Information Act.

## **ARTICLE VI - INDEMNIFICATION**

### **A. The NPS Agrees:**

To cooperate in the submission of claims pursuant to Title 28 of the United States Code, the Federal Tort Claims Act, against the United States for personal injuries or property damage resulting from the negligent or wrongful act or omission of any employee of the United States that result from, arise out of, or relate to the activities of the NPS or its employees, contractors, or subcontractors under this MOA.

### **B. The SFPUC Agrees:**

The City shall indemnify, defend, and hold harmless the United States and the National Park Service, and their officers, employees, and agents from and against all claims, suits, actions, losses, damages, liabilities, costs and expenses that result from, arise out of, or relate to the activities of the SFPUC or its employees, contractors, or subcontractors under this MOA.

#### **ARTICLE VII – TERM OF AGREEMENT**

This MOA shall become effective on the date of the last signature and extend through July 1, 2015.

#### **ARTICLE VIII – MODIFICATION AND TERMINATION**

This Agreement may be revised to address new or changed conditions; the addition or modification of core tasks and special projects; status changes for special projects; regulatory considerations; and funding changes. Any core tasks that are discontinued during this Agreement will be funded through the end of the current SFPUC fiscal year plus one (1) additional SFPUC fiscal year, except as the SFPUC and NPS mutually agree.

#### **ARTICLE IX – GENERAL PROVISIONS**

- A. Nothing herein shall or shall be construed to obligate the National Park Service to expend or involve the United States of America in any contract or other obligation for the future payment of money in excess of appropriations authorized by law and administratively allotted and allocated for the purposes contemplated in this MOA.
- B. **Fiscal Limitations:** THIS SECTION SUPERSEDES ANY CONFLICTING PROVISION OF THIS MOA. This MOA is subject to the fiscal provisions of the San Francisco charter and the budget decisions of its Mayor and Board of Supervisors. No SFPUC funds will be available hereunder until prior written authorization certified by the City's Controller. The Controller cannot authorize payments unless funds have been certified as available in the budget or in a supplemental appropriation. This MOU shall automatically terminate, without liability to the City, if funds are not properly appropriated by the Mayor and Board of Supervisors or certified by the Controller. The SFPUC's obligations hereunder shall never exceed the amount certified by the Controller for the purpose and period stated in such certification. The SFPUC, its employees and officers are not authorized to request services, materials, equipment or supplies that are beyond the scope of those expressly described herein, unless this MOU is amended in writing and approved as required by law. The SFPUC, its employees and officers are not authorized to offer or promise any additional funding that would exceed the maximum amount that may be appropriated for FY 2010-11 specified in Appendix E. Such additional funding requires lawful approval and certification by the Controller. Without such lawful approval and certification, the SFPUC shall not be required to provide such additional funding.
- C. No member of or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of the MOA or to any benefit that may arise out of it.
- D. This Agreement was not executed for the benefit of any entity or person who is not a party hereto, and neither this agreement, nor any interest therein, may be assigned without the prior consent of the non-assigning party.
- E. This Agreement does not give rise to third party contract rights and cannot be enforced by third parties.

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- F. This Agreement shall not be construed or implied that either the City or the NPS, by entering into this Agreement, intends to abrogate their obligations and duties to comply with all applicable provisions of the regulations promulgated under the National Environmental Policy Act of 1969, the California Environmental Quality Act, or any other applicable law.

**ARTICLE X – AUTHORIZING SIGNATURES**

\_\_\_\_\_  
Don L. Neubacher, Superintendent, Yosemite National Park

\_\_\_\_\_  
Date

\_\_\_\_\_  
Edward Harrington, General Manager,  
San Francisco Public Utilities Commission

\_\_\_\_\_  
Date

Authorized by SFPUC Resolution No. \_\_\_\_\_

\_\_\_\_\_  
Date

By: \_\_\_\_\_  
Secretary

Approved as to form:

\_\_\_\_\_  
Deputy City Attorney

## APPENDIX A

### **Raker Act Water Quality Provisions**

The passage of the Raker Act by the US Congress on December 19, 1913 established the Hetch Hetchy Water and Power Project. The Raker Act granted water and power resource rights-of-way over federal lands in YNP and Stanislaus National Forest to the City and County of San Francisco. Since construction of O'Shaughnessy Dam at Hetch Hetchy and completion of the 149-mile Hetch Hetchy water delivery system in 1934, Sierra Nevada water has been providing a year-round supply of high quality potable water to San Francisco and neighboring communities.

Section 9 (a) of the Raker Act requires the following water quality protections:

*...the following sanitary regulations shall be made effective within the watershed above and around said reservoir sites so used by said grantee:*

*First. No human excrement, garbage, or other refuse shall be placed in the waters of any reservoir or stream or within three hundred feet thereof.*

*Second. All sewage from permanent camps and hotels within the watershed shall be filtered by natural percolation through porous earth or otherwise adequately purified or destroyed.*

*Third. No person shall bathe, wash clothes or cooking utensils, or water stock in, ruin any way pollute, the water within the limits of the Hetch Hetchy Reservoir or any reservoir constructed by the said grantee under the provisions of this grant, or in the streams leading thereto, within one mile of said reservoir; or, with reference to the Hetch Hetchy Reservoir, in the waters from the reservoir or waters entering the river between it and the "Early intake" of the aqueduct, pending the completion of the aqueduct between "Early intake" and the Hetch Hetchy Dam site.*

*Fourth. The cost of the inspection necessary to secure compliance with the sanitary regulations made a part of these conditions, which inspection shall be under the direction of the Secretary of the Interior, shall be defrayed by the said grantee.*

*Fifth. If at any time the sanitary regulations provided for herein shall be deemed by said grantee insufficient to protect the purity of the water supply, then the said grantee shall install a filtration plant or provide other means to guard the purity of the water. No other sanitary rules or restrictions shall be demanded by or granted to the said grantee as to the use of the watershed by campers, tourists, or the occupants of hotels and cottages...*

Since the passage of the Raker Act, other watershed protection criteria have been established for drinking water by state and federal agencies. This Agreement encompasses implementation of the water quality provisions of the Raker Act, pursuant to the fourth item (above), along with additional water quality, resource protection and security initiatives by YNP that the SFPUC agrees to fund on a voluntary basis.

## APPENDIX B

### Filtration Avoidance Regulations

#### Source Water Protection – Selected Filtration Avoidance Regulatory Requirements

Source water protection requirements of the following CFR and CCR sections are met by demonstrating an effective watershed control program that minimizes the potential for contamination by microbial pathogens. The NPS and SFPUC cooperate to maintain an effective management program for water source, and standby water source, watersheds within the YNP. This is documented through sanitary survey updates performed by the SFPUC.

The SFPUC was granted filtration avoidance for the Hetch Hetchy water supply by the Environmental Protection Agency on October 29, 1993. This is covered under Title 40 Code of Federal Regulations (CFR), Part 141, Subpart H, Section 141.71.

The San Francisco Regional Water System (SFRWS) is permitted under Title 22 of the California Code of Regulations (CCR): System No. 3810001, Permit Number 02-04-04P-3810001. The California Department of Health Services (CDPH) regulations pertaining to filtration avoidance criteria are listed in Title 22 Sections 64652.5.

#### *Section 64652.5. Criteria for Avoiding Filtration.*

*(a) A supplier that uses an approved surface water shall meet all of the requirements of this section to avoid the necessity of providing filtration. ...*

*(c) The approved surface water quality monitored pursuant to subsection (b) shall meet the following criteria:*

*(1) The fecal coliform concentration shall be equal to or less than 20/100 ml, or the total coliform concentration shall be equal to or less than 100/100 ml, in representative samples of the approved surface water in at least 90 percent of the measurements made for the six previous months that the system served unfiltered approved surface water to the public on an ongoing basis. If a system measures both fecal and total coliforms, the fecal coliform criterion, not the total coliform criterion, in this paragraph shall be met.*

*(2) The turbidity level shall not exceed 5 NTU in representative samples ...*

*(e) The supplier shall maintain a watershed control program which minimizes the potential for contamination by Giardia lamblia cysts and viruses in the source water. The adequacy of a program to limit potential contamination by Giardia lamblia cysts and viruses shall be determined by: the comprehensiveness of the watershed review; the effectiveness of the supplier's program to monitor and control detrimental activities occurring in the watershed; and the extent to which the water system has maximized land ownership and/or controlled land use within the watershed. At a minimum, the watershed control program shall: (1) Characterize the watershed hydrology and land ownership; (2) Identify watershed characteristics and activities which may have an adverse effect on water quality; (3) Monitor the occurrence of activities which may have an adverse effect on water quality. The supplier shall demonstrate through ownership and/or written agreements with landowners within the watershed that it can control all human activities which may have an adverse impact on the microbiological quality of the water. The supplier shall submit an annual report to the Department that identifies any special concerns about the watershed and how they are being handled; describes activities in the watershed that affect water quality; and projects what adverse activities are expected to occur in the future and how the public water system expects to address them; and (4) Monitor the presence of Giardia lamblia cysts in the approved surface water whenever agricultural grazing, water oriented recreation, or point source domestic wastewater discharges occur on the watershed. ....*

*(f) The water system shall be subject to an annual on-site inspection to assess the watershed control program and disinfection treatment process. Either the Department or a party approved by the Department shall conduct the on-site inspection. The inspection shall be conducted by competent individuals who have a sound understanding of public health principles and waterborne diseases, such as sanitary engineers, civil engineers, environmental health specialists, or technicians who have experience and knowledge about the operation and maintenance of a public water system. A report of the on-site inspection summarizing all findings shall be prepared every calendar year and submitted to the Department, if not conducted by the Department, by December 31 of that year. The on-site inspection shall be comprehensive to enable the Department to determine whether the watershed control program and disinfection treatment process are adequately designed and maintained. The on-site inspection shall include:*

- (1) A review of the effectiveness of the watershed control program;*
- (2) A review of the physical condition of the source intake and how well it is protected;*
- (3) A review of the supplier's equipment maintenance program to ensure there is low probability for failure of the disinfection process;*
- (4) An inspection of the disinfection equipment for physical deterioration;*
- (5) A review of operating procedures;*
- (6) A review of data records to ensure that all required tests are being conducted and recorded and disinfection is effectively practiced; and*
- (7) Identification of any improvements which are needed in the equipment, system maintenance and operation, or data collection...*

## APPENDIX C

### **SFPUC Water Enterprise Environmental Stewardship Policy**

The mission of the San Francisco Public Utilities Commission (SFPUC) is to serve San Francisco and its Bay Area customers with reliable, high quality, and affordable water and wastewater treatment while maximizing benefits from power operations and responsibly managing the resources—human, physical, and natural—entrusted to its care.

The purpose of the Water Enterprise Environmental Stewardship Policy is to establish long-term management direction for SFPUC-owned lands and natural resources affected by operation of the SFPUC water system within the Tuolumne River, Alameda Creek (Bay Area), and Peninsula (Bay Area) watersheds. Environmental stewardship is a fundamental component of the Water Enterprise mission, and a responsibility of all Water Enterprise employees.

The SFPUC is committed to responsible natural resources management that protects and restores viable populations of native species and maintains the integrity of the ecosystems that support them for current and future generations. The SFPUC strives to become a leader in science-based and collaborative environmental stewardship in order to continue providing high-quality and reliable water supplies to San Francisco residents and SFPUC customers.

#### Watershed Management

The SFPUC will proactively manage the watersheds under its responsibility in a manner that maintains the integrity of the natural resources, restores habitats for native species, and enhances ecosystem function. The SFPUC believes that partnership and collaboration with agencies, communities and other stakeholders in the watersheds are the best way to maximize investment in environmental stewardship.

To the extent practicable, the SFPUC will ensure that all operations of the SFPUC water system (including water diversion, storage and transport), construction and maintenance of infrastructure, land management policies and practices, purchase and sale of watershed lands, and lease agreements for watershed lands protect and restore native species and the ecosystems that support them. In cases where the SFPUC has limited control, but where impacts of its operations exist, the SFPUC will work with responsible parties to improve ecosystem health.

It is the policy of the SFPUC to operate the SFPUC water system in a manner that protects and restores native fish and wildlife downstream of SFPUC dams and water diversions, within SFPUC reservoirs, and on SFPUC watershed lands. Releases from SFPUC reservoirs will (consistent with the SFPUC mission described above, existing agreements, and applicable state and federal laws), mimic the variation of the seasonal hydrology (e.g., magnitude, timing, duration, and frequency) of their corresponding watersheds in order to sustain the aquatic and riparian ecosystems upon which these native fish and wildlife species depend.

The SFPUC will actively monitor the health of the terrestrial and aquatic habitats both under SFPUC ownership and affected by SFPUC operations in order to continually improve ecosystem health. Relevant performance measures and indicators will be used to evaluate the effectiveness of implementation efforts under this policy.

#### Other SFPUC Lands

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Rights of way and properties in urban surroundings under SFPUC management will be managed in a manner that protects and restores habitat value where available, and encourages community participation in decisions that significantly interrupt or alter current land use in these parcels.

### Public Involvement

The SFPUC believes that public engagement is key to ensuring successful environmental stewardship. To that end, SFPUC will:

- Solicit input and collaboration on its plans and implementation from all interested and affected parties, including local, state, and federal agencies, non-governmental organizations, and members of the public.
- Encourage development of recreational uses that are compatible with protection and restoration of natural resources, and water quality and water supply reliability goals.
- Include communities and stakeholders in monitoring, restoration and other stewardship activities to the extent possible.
- Provide information and reports to the public that track activities related to implementation of this policy.

### Implementation Strategy

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. Below are examples of areas for integration and specific activities that will further the goals of this policy.

- Implementation and updating of the existing Alameda and Peninsula Watershed Management Plans.
- Development of Habitat Conservation Plans for the Alameda and Peninsula Watersheds.
- Development and implementation of the Watershed and Environmental Improvement Program, which will cover the Tuolumne River, Alameda Creek, and Peninsula watersheds.
- Development of the Lake Merced Watershed Plan.
- Active participation in local forums, including coordination with Yosemite National Park Service and Stanislaus National Forest in the Tuolumne River watershed, the Tuolumne River Technical Advisory Committee, the Alameda Creek Fisheries Restoration Workgroup, the Pilarcitos Creek Restoration Workgroup, and the Lake Merced Task Force.
- Integration of the policy into the Water System Improvement Program and individual infrastructure projects (i.e., repair and replacement programs).
- Ensure that the policy guides development of project descriptions, alternatives and mitigation for all SFPUC projects during the environmental review process under CEQA and/or NEPA.
- Seek support for and encourage all employees to integrate environmental stewardship into daily operations through communication and training.

**APPENDIX D - CONFIDENTIAL**

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**APPENDIX E****Hetch Hetchy Memorandum of Agreement Five-year Core Task Funding**

Initial year funding is firm based on the approved SFPUC FY 2010-11 Budget. Out years are estimated based on projected cost of living increases (assumed at 5% per year). Administrative costs are rolled into budgets at 5% and are not a line-item. Projects are not listed because each year they will be jointly developed and funded through the annual budget submittal for each program.

Program	YNP	MOA Section	Core Task	2010-11 (Year 1)	2011-12 (Year 2)*	2012-13 (Year 3)	2013-14 (Year 4)	2014-15 (Year 5)	2015-16 (Next MOA)
Source Water Protection	BRM	IV.C.1.d	HH Entrance Station	\$182,990	\$192,140				
Source Water Protection	FM	IV.C.1.f	Trails	\$588,653	\$618,086				
Source Water Protection	FM	IV.C.1.g	Seasonal B&G Maintenance	\$78,344	\$82,261				
Source Water Protection	FM	IV.C.1.h	Utilities	\$115,037	\$120,789				
Source Water Protection	INTERP	IV.C.1.e	Interpretation	\$147,464	\$154,837				
Source Water Protection	PROT	IV.C.1.b	Wilderness Operations	\$758,793	\$796,733				
Source Water Protection	PROT	IV.C.1.c	Wilderness Education	\$131,756	\$138,344				
Source Water Protection	PROT	IV.C.1.a	Watershed Protection - Canyon Ranch	\$637,685	\$669,569				
Source Water Protection	PROT	IV.C.1.a	Watershed Protection - Tuolumne District	\$789,213	\$828,674				
Source Water Protection	RMS	IV.C.1.i	Wilderness Restoration	\$75,430	\$79,202				
Source Water Protection	RMS	IV.C.1.i	Visitor Impact Monitoring	\$120,854	\$35,000				
Environmental Stewardship	RMS	IV.C.2.b	Looking Downstream	\$179,553	\$188,531				
Environmental Stewardship	RMS	IV.C.2.c	Amphibian Survey	\$0	\$50,000				
Security	PROT	IV.C.3	Security	\$637,020	\$668,871				
All	SUPT	III.A.1.a	Program Manager	\$144,498	\$151,723				
All	SUPT		Raker Act	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
			<b>Core Task Total</b>	<b>\$4,617,290</b>	<b>\$4,804,758</b>	<b>\$5,044,996</b>	<b>\$5,297,245</b>	<b>\$5,562,108</b>	<b>\$5,840,213</b>
Special Projects			Special Project Total	\$590,418					
			<b>TOTAL PROGRAM</b>	<b>\$5,207,708</b>					

\*Year 2 reflects changes in amounts to two programs that were approved as Projects for FY 10/11. Starting FY 11/12, they will become Core Tasks at the listed amounts. Because specific amounts needed to be called out for two core tasks, detail was provided for all of them.