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**DRAFT (May 12, 1999 #9)**

**MEMORANDUM OF UNDERSTANDING**

**by and among**

**U.S. FISH AND WILDLIFE SERVICE**

**NATIONAL MARINE FISHERIES SERVICE**

**U.S. BUREAU OF RECLAMATION**

**CALIFORNIA DEPARTMENT OF FISH AND GAME and**

**PACIFIC GAS AND ELECTRIC COMPANY**

**TO MEMORIALIZE AGREEMENT REGARDING THE PROPOSED BATTLE CREEK SALMON AND STEELHEAD RESTORATION PROJECT, LOCATED IN THE BATTLE CREEK WATERSHED IN TEHAMA AND SHASTA COUNTIES, CALIFORNIA .**

This Memorandum of Understanding (MOU), is by and among the UNITED STATES FISH AND WILDLIFE SERVICE (USFWS), NATIONAL MARINE FISHERIES SERVICE (NMFS), UNITED STATES BUREAU OF RECLAMATION (USBR), CALIFORNIA DEPARTMENT OF FISH AND GAME (CDFG), and PACIFIC GAS AND ELECTRIC COMPANY, (PG&E), hereinafter collectively called the "Parties," defines the Parties' roles and responsibilities regarding actions that will be undertaken as part of the proposed Battle Creek Salmon and Steelhead Restoration Project (Restoration Project), and commitments regarding costs for and implementation of the Restoration Project.

**TABLE OF CONTENTS [NEW AS SUGGESTED 5/12/99]**

- 1.0 RECITALS**
- 2.0 DEFINITIONS**
- 3.0 PURPOSES**
- 4.0 PROPOSED BATTLE CREEK SALMON AND STEELHEAD RESTORATION PROJECT**
- 5.0 CONTINGENCIES AND LIMITATIONS**
- 6.0 ROLES AND RESPONSIBILITIES**

**MONITORING AND REPORTING**

- 8.0 PLANNING, PERMITTING, AND CONSTRUCTION ACTIVITIES**
- 9.0 ADAPTIVE MANAGEMENT COMPONENT**
- 10.0 FUNDING**
- 11.0 LEASES OR SALE OF FERC PROJECT NO. 1121**
- 12.0 ENVIRONMENTAL AND OTHER LIABILITIES**
- 13.0 AMENDMENT PROCESS**
- 14.0 DISPUTE RESOLUTION**
- 15.0 TERM OF MEMORANDUM OF UNDERSTANDING**

## **16.0 TERMINATION**

### **1.0 RECITALS**

This Agreement is entered into with regard to the following understandings:

- 1.1** Battle Creek is a tributary of the Sacramento River located in the Tehama County and Shasta County area. This cold, spring-fed stream has exceptionally high flows during the dry season, making it important habitat for anadromous fish. Battle Creek may be the only remaining stream other than the main stem of the Sacramento River that can successfully sustain breeding populations of steelhead and all four runs of Chinook salmon. Battle Creek is also unique and biologically important because in the past it has provided habitat opportunities during drought years for winter-run salmon.
- 1.2** PG&E owns and operates several diversion facilities on the North and South Forks of Battle Creek, including Coleman Diversion Dam, Inskip Diversion Dam, South Diversion Dam, Wildcat Diversion Dam, Eagle Canyon Diversion Dam, and North Battle Creek Feeder Diversion Dam, and dams on Ripley Creek, Soap Creek and Baldwin Creek, and controls the majority of the flows in the anadromous fish reaches of the Battle Creek watershed.
- 1.3** In 1997, inspired by the availability of substantial amounts of fish and wildlife restoration funds, the Battle Creek Working Group (BCWG), made up of representatives from the state and federal resource agencies and fishery, environmental, local, agricultural, power, and urban stakeholder communities, was formed to accelerate salmon and steelhead restoration in the Battle Creek watershed. The BCWG provided technical advice for a plan developed under a CALFED Category III grant.
- 1.4** By participating in a cooperative agreement to restore Battle Creek, which avoids the conventional, adversarial, regulatory process, the parties to this MOU expect to

achieve the following:

- A. Restore self-sustaining populations of salmon and steelhead and their habitat in the Battle Creek watershed, through a voluntary partnership with state and federal agencies, a private endowment and private industry.
- B. Secure up-front certainty regarding specific restoration components including resource agency preferred minimum flows, selected decommissioning of dams at key locations in the watershed, dedication of water diversion rights for instream purposes at decommissioned sites, construction of tailrace connectors, and reliable screens and ladders.
- C. Secure timely implementation and completion of restoration activities.

Building upon the above partnership, jointly develop and implement a long term Adaptive Management Plan with dedicated funding sources to ensure the continued success of restoration efforts.

- 1.5 A negotiating team comprised of management representatives from USFWS, NMFS, USBR, CDFG, and PG&E met in the fall of 1998 and in early 1999 to pursue an agreement regarding a proposal for Battle Creek restoration actions. An Agreement in Principle among the Parties was reached in February 1999 (see Attachment 1).
- 1.6 Other actions to restore and enhance fish habitat on Battle Creek are being implemented in the Battle Creek watershed not directly related to the hydroelectric project operations (e.g., Coleman National Fish Hatchery actions and meadow restoration upstream of the natural barrier falls which preclude anadromous passage). These actions are outside the scope of the Restoration Project, but are considered important to the overall success of restoring the anadromous fishery

resources in the Battle Creek watershed.

**1.7** Implementation of the Restoration Project will be consistent with the following restoration directives and programs:

Central Valley Project Improvement Act's (Public Law 102-575 Section 3401 et seq. (CVPIA)); Anadromous Fish Restoration Program State Salmon, Steelhead Trout, and Anadromous Fisheries Program Act (California Fish and Game Code Section 6900 et seq.); National Marine Fisheries Service Recovery Plan for Sacramento River Winter-run Chinook Salmon CALFED Ecosystem Restoration Program Upper Sacramento River Fisheries and Riparian Habitat Management Plan (1989) Central Valley Salmon and Steelhead Restoration and Enhancement Plan (1990) Restoring Central Valley Streams – A Plan for Action (1993) Steelhead Restoration and Management Plan for California (1996)

One specific goal of the CVPIA is the doubling of natural production of anadromous fish. Battle Creek has been identified as one of the Sacramento River tributaries where restoration activities have the potential to contribute materially to this CVPIA goal.

**1.8** The Parties are proposing a series of measures, described in this MOU as the Restoration Project, to establish a restoration program for chinook salmon and steelhead habitat in the reaches of Battle Creek below the natural water falls on the forks of Battle Creek that act as absolute barriers to fish passage (see Section 2.3). Individual restoration actions under the Restoration Project will be based upon the best scientific and commercial information available.

- 1.9** The Parties recognize the unique characteristics of Battle Creek regarding its importance in the restoration of chinook salmon and steelhead in the Sacramento River watershed. The Parties also acknowledge the current availability of opportunity for public funding for anadromous fish restoration projects in the Central Valley, which funding has not been readily available in the past and may not be in the future. Based on the unique circumstances surrounding the Restoration Project, the Parties recognize that all actions collaboratively pursued under the Restoration Project, including dam removal and public funding, will not set a precedent for future restoration actions in other watersheds.
- 1.10** USFWS is participating in the Restoration Project pursuant to the CVPIA and the Endangered Species Act (16 U.S.C. Section 1531-1544 (ESA)) and the Fishery Conservation and Management Act (16 U.S.C. Section 1801-1882).
- 1.11** NMFS is participating in the Restoration Project pursuant to the federal ESA
- 1.12** USBR is participating in the Restoration Project pursuant to the CVPIA and the California Bay-Delta Environmental Enhancement Act (P.L. 104-333).
- 1.13** CDFG is participating in the Restoration Project based on its responsibilities as trustee agency for the fish and wildlife resources of California (Fish and Game Code section 711.7(a)) and its jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species, (Fish and Game Code section 1802), and other applicable state laws
- 1.14** PG&E is participating in the Restoration Project as owner and operator of the Battle Creek Hydroelectric Project, (FERC Project No. 1121).

**THEREFORE**, the Parties hereto do hereby understand and agree as follows:

**2.0 DEFINITIONS** *[Note: Need to arrange in alphabetical order when complete.]*

The terms "CDFG", "ESA", "CVPIA", "MOU", "NMFS", "Parties", "Restoration Project", "USBR", and "USFWS" have the meanings set forth above.

For the purposes of this MOU, the following terms have the meanings set forth below:

- 2.1** "PG&E" means the Pacific Gas and Electric Company, and any lessee or successor owner of the Battle Creek Hydroelectric Project, (FERC Project No. 1121).
- 2.2** "Total Project Cost" means all costs necessary to implement the Restoration Project, including but not limited to planning, permitting, performing environmental and decommissioning studies, preparing a FERC license amendment application, design, construction, operating, maintaining and periodic replacements for various facility additions (i.e., fish screens, fish ladders, connectors and appurtenant facilities) to FERC Project No.1121, facility decommissioning, removal, environmental restoration, facility and biological/environmental monitoring and reporting, purchased water costs, Adaptive Management monitoring, study and implementation costs.
- 2.3** "Restoration Project Area" means the areas in and around the following PG&E facilities: Coleman Diversion Dam, Inskip Diversion Dam, South Diversion Dam, Wildcat Diversion Dam, Eagle Canyon Diversion Dam, North Battle Creek Feeder Diversion Dam; and Asbury Pump Diversion; Battle Creek; North Fork Battle Creek and South Fork Battle Creek, up to the natural barriers at 14 miles and 19 miles above the confluence, respectively; and Eagle Canyon Springs, Soap Creek, Baldwin Creek, and Lower Ripley Creek and each of their adjacent water bodies.
- 2.4** "Purchased Water Cost" means the identified financial value of the water flows provided by the Restoration Project in excess of the required flows stated in the

license for FERC Project No. 1121 as of 3/1/99.

- 2.5 "CALFED" means the cooperative effort among state and federal agencies and California's environmental, urban, and agricultural communities, initiated in 1995, to address environmental and water management problems associated with an intricate web of waterways created at the junction of the San Francisco Bay and the Sacramento and San Joaquin rivers and the watershed that feeds them known as the Bay/Delta system.
- 2.6 "CAMP" means the Comprehensive Assessment and Monitoring Program established pursuant to Section 3406(b)(16) of the CVPIA.
- 2.7 "FERC" means the Federal Energy Regulatory Commission, the entity charged with the implementation of the Federal Power Act (16 U.S.C. 791 (a) et seq.) and the licensing of hydropower projects in jurisdictional waters of the United States.
- 2.8 "Final FERC Order" means, a final order issued by FERC pursuant to an application filed by PG&E to amend the license for FERC Project No. 1121 to implement the terms and conditions of this MOU, after exhaustion of any administrative or judicial remedy appeal.
- 2.9 "Consensus", means the unanimous agreement among PG&E, NMFS, USBR, USFWS and CDFG.
- 2.10 "Resource Agencies" means NMFS, USFWS and CDFG.
- 2.11 "Fail-Safe Fish Screen" means a fish screen that is designed to automatically shut off the water diversion whenever the fish screen fails to meet design or performance criteria until there is a functioning fish screen again.

"Fail-Safe Fish Ladder" means features inherent in the design of the facility that ensure that the structure will continue to operate to facilitate the safe passage of fish under the same performance criteria as designed under anticipated possible sources of failure.

2.13 "The Agencies" means USBR, NMFS, USFWS and CDFG.

2.14 "CPUC" means the California Public Utility Commission.

2.15 "Adaptive Management" means an approach as more specifically described in Section 9.0 that allows for changes to the Restoration Project that may be necessary in light of new scientific information regarding the effectiveness of the restoration efforts.

2.16 "Adaptive Management Fund" means the Fund described in Section 9.2 B.

2.17 "Decommission" means to fully remove all applicable facilities and return site to an approximation of pre-existing conditions, subject to FERC approval. Decommissioning activities include but are not limited to developing a decommissioning plan, performing pre- and post- removal environmental studies, facility removal, environmental mitigation restoration, erosion control, re-vegetation, environmental monitoring, and reporting.

2.18 "Water Acquisition Fund" means the Fund described in Section 9.1.

2.19 "Ramping Rates" means moderating the rate of change of stream flow in Battle Creek resulting from the operation of FERC Project No. 1121.

2.20 "Battle Creek Hydroelectric Project, FERC Project No. 1121" or "FERC Project No. 1121" means the hydroelectric development as described in the FERC license issued by FERC on August 13, 1976 and as subsequently amended.

2.21 "Restoration Project" means all measures set forth in the underlying Agreement in Principle (Attachment 1) as further developed in this MOU and having the purpose of restoring chinook salmon and steelhead habitat associated with FERC Project No. 1121, within the Restoration Project Area.

### 3.0 PURPOSES

The purposes of this MOU are:

- 3.1 To identify the series of measures comprising the proposed Restoration Project to be addressed in the NEPA/CEQA/ESA processes;
- 3.2 To identify the roles and responsibilities of each of the Parties;
- 3.3 To identify contingencies and limitations of this MOU; and
- 3.4 To identify the scope of proposed FERC license terms and conditions in a separate license amendment application an agreement to be subsequently submitted to FERC in order to implement the proposed Restoration Project .

### 4.0 PROPOSED BATTLE CREEK SALMON AND STEELHEAD RESTORATION PROJECT

The Parties understand and agree that all engineering for facility modifications described in Section 4.1 below, including installation of fish screens and fish ladders, design and the process for decommissioning the dam and associated facilities, and installation of any pipeline connections between power houses and lands on the South Fork of Battle Creek, shall meet USFWS, NMFS, CDFG, USBR, PG&E, and FERC standards. The proposed Restoration Project includes the following:

10

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## 4.1 Facility Modifications

### A. Coleman Diversion Dam:

- install a tailrace connector from Inskip Powerhouse to Coleman Canal and full-flow ~~(note: no agreement on full flow)~~ water bypass facility around Inskip Powerhouse
- decommission dam and appurtenant facilities

### B. Inskip Diversion Dam:

- install NMFS/CDFG approved "fail-safe" fish screen
- install NMFS/CDFG approved "fail-safe" fish ladder
- install a tailrace connector from South Powerhouse to Inskip Canal
- install the connector at South Powerhouse concurrent with, or prior to, the Inskip Diversion Dam fish screen.

### C. South Diversion Dam:

- decommission dam, related water conveyance and appurtenant facilities

### D. Wildcat Diversion Dam:

- decommission dam, related water conveyance and appurtenant facilities

### E. Eagle Canyon Diversion Dam:

- install NMFS/CDFG approved "fail-safe" fish screen
- install NMFS/CDFG approved "fail-safe" fish ladder

**F. North Battle Creek Feeder Diversion Dam:**

- install NMFS/CDFG approved "fail-safe" fish screen
- retrofit existing fish ladder with NMFS/CDFG approved design for "fail-safe" operation

**G. Soap Creek:**

- decommission dam, related water conveyance and appurtenant facilities

**H. Lower Ripley Creek:**

decommission dam, related water conveyance and appurtenant facilities

**I. Baldwin Creek:**

- provide means for releasing a maximum instream flow of 5 cfs from Asbury Pump Diversion

At appropriate locations:

- Install/modify gauges as necessary required to monitor implementation of the Restoration Project.

While the list of facilities to be decommissioned shall not be reduced, the Parties may reach Consensus on less than full removal of any specific facility or appurtenant feature listed above to reduce overall Restoration Project cost, where objectives of the Restoration Project, including unimpeded fish passage will be met while minimizing PG&E liability.



In addition, with regard to the water bypass facility around Inskip Powerhouse (see Section 4.1(A)), the Parties support constructing a facility capable of bypassing the maximum flow necessary to meet the objectives of the Restoration Project within the limits of the Federal funding addressed in Section 10.2.

#### **4.2 Instream Flows**

The Parties agree that another component of the Restoration Project is increased instream flows for the benefit of fish and wildlife resources. PG&E will release the prescribed instream flow releases specified in Tables 1 and 2 of Attachment 1 to this MOU or the natural flow, whichever is less. The Resource Agencies will meet and confer with PG&E before determining flow ramping provisions for returning facilities to service following shutdowns. At those dams being decommissioned, PG&E will transfer those water rights as more fully described in Section 6.1 E.

#### **4.3 Water Acquisition Fund**

This component of the proposed Restoration Project is more particularly described in Section 9.2 A of this MOU.

#### **4.4 Adaptive Management Plan**

This component of the proposed Restoration Project is more particularly described in Section 9.1 of this MOU.

#### **4.5 Adaptive Management Fund**

This component of the proposed Restoration Project is more particularly described in Section 9.2 B of this MOU.

### **5.0 CONTINGENCIES AND LIMITATIONS**

~~This MOU does not alter existing regulations, or agency responsibilities and authorities. This MOU It specifically does not commit any the agency Parties to activities beyond the scope of their mission, funding and authorities. Except as otherwise provided in Section 10.1, it is recognized that any funding and personnel to carry out the responsibilities under this agreement MOU shall be subject to the availability of appropriated funds. Implementation of this MOU shall be subject to the availability of resources and the requirements of the Anti-Deficiency Act (31 USC 1341). The Parties agree that if sufficient funding is not available through normal sources they will jointly pursue and support other appropriate funding sources. If such other funding cannot be made available, the scope of work will be adjusted, through the Consensus process, to meet the available funding level. A lack of funding to meet the Agencies' respective commitments shall not result in transfer of that liability to PG&E.~~

- ~~5.1 The Agencies recognize that the USBR will be the Agency that receives the federal funding for the construction component of the Restoration Project. Thus, the USBR, and not the Resource Agencies, will be responsible for any construction and decommissioning cost revenues, in Section 10.2 of this MOU~~
- 5.2 This agreement is of no force and effect until signed by all parties and approved by the California Department of General Services pursuant to PCC Sec. 10295, 10335 and 10360, U.S. Department of Commerce and U.S. Department of Interior. Any work initiated prior to the approval date is done at each Parties own risk. Absolutely no expenses incurred prior to the effective date of this agreement will be approved for payment, by the State of California.
- 5.3 The Parties understand and agree that the implementation of any and all activities by the USFWS, USBR, NMFS, and CDFG pursuant to this MOU, with the exception of consultations and initial planning activities, are contingent upon compliance with NEPA and CEQA. The Parties Resource Agencies anticipate that activities

described in this MOU will be identified in any NEPA/CEQA document as an alternative, but also acknowledge that other alternatives will be considered in the NEPA/CEQA process prior to the time that a final decision or an irreversible commitment of resources or funds is made toward any one alternative.

- 5.4 The Parties understand and agree that the roles and responsibilities of PG&E pursuant to this MOU are subject to approval by FERC and the CPUC. However, the Parties will develop a separate ~~license amendment application proposal~~ that contains pertinent provisions of this MOU that the Parties will request that FERC include in a license amendment ~~to the license for FERC Project No. 1121 regarding the Restoration Project. That license amendment application LAM MOU will be submitted to FERC with the application for license amendment.~~ In the event that the Final FERC Order amending the license for ~~FERC Project No. 1121~~ is materially different from the terms and conditions of ~~that LAM MOU~~ ~~the license amendment application~~ then this MOU may be amended as provided in Section 13 of this MOU or terminated as provided in Section 16 of this MOU.
- 5.5 The Parties understand and agree that no permanent changes to facilities or operations is required pursuant to this MOU prior to issuance of a Final FERC Order, as defined in subsection 2.8 above. The Parties understand and agree that certain preliminary tasks must be performed to support the proposed license amendment application to FERC prior to a Final FERC Order in order to assist in accomplishing this Restoration Project. For example, upon the effective date of this MOU, PG&E will consult with the ~~State Water Resources Control Board (SWRCB)~~ and the proposed water right transferee(s) pursuant to Water Code Section 1707 regarding dedication of certain water rights as specified in Subsection 6.1(E) of this MOU and will work diligently with the Resource Agencies and the SWRCB to complete the dedication process upon issuance of a Final FERC Order.
- 5.6 Nothing in this MOU, whether or not incorporated into the terms of the FERC

license, is intended or shall be construed as a precedent or other basis for any argument that the parties which have signed this MOU have waived or compromised any rights which may be available under state or federal law except as set forth in this MOU. In addition, nothing in this MOU establishes precedent regarding hydroelectric jurisdictional issues.

5.7 The Agencies assert that current and proposed facilities and operations of FERC Project No. 1121, including those outlined in this MOU, are operating, and will continue to operate, in habitat occupied by Sacramento River winter-run chinook salmon, spring run chinook salmon, Central Valley steelhead and other species listed under the Federal ESA and the California Endangered Species Act. Nothing in this MOU is intended to bind or prejudice NMFS or USFWS, or otherwise limit their respective authorities, in the performance of its responsibilities under the ESA or in the development of a biological opinion.

5.8 If there is any dispute between the language of a provision of this MOU and the Agreement in Principle attached as Attachment 1, the language of this MOU shall govern.

## 6.0 ROLES AND RESPONSIBILITIES

### 6.1 PG&E

A. As more fully described below, PG&E will contribute an estimated \$20,550,900 toward the Total Project Cost during the term of this MOU. PG&E recognizes that its costs may exceed those estimates and agrees it is responsible for all cost overruns for Restoration Project components listed as being funded by PG&E in Table 3 of Attachment 1 to this MOU. This amount includes PG&E's contribution to a portion of the Biological and Environmental Monitoring more fully described in Section 7.3 of the MOU.

PG&E's contribution will consist of: (a) providing 90% of the flows listed in Attachment 1 without compensation; (b) payment of 100% of any increased operation and maintenance costs due to facilities and operation changes resulting from the Restoration Project; (c) loss of foregone power due to new ramping rate requirements described in Section 4.2 of this MOU; and (d) screen and ladder repairs and replacements due to normal wear and tear, catastrophic damage, and any other damage. In the event of exhaustion of the Water Acquisition Fund or Adaptive Management Fund, PG&E acknowledges and agrees it will pay for such modifications to project facilities or operations determined through the Adaptive Management Plan or pursuant to applicable state or federal law.

- B.** PG&E will pay all its internal costs associated with any FERC license amendment necessitated by the Restoration Project. PG&E will use a collaborative license amendment process to develop the license amendment application for submittal to FERC. PG&E will include in its amendment application pertinent environmental compliance documents prepared by USBR as described in Section 6.2. PG&E will also participate in and provide limited internal technical and fishery expertise to the biological and environmental monitoring and will mutually assist in analyses, review results and identify potential Adaptive Management measures for the Restoration Project.
- C.** PG&E will request an amendment to its license for FERC Project No. 1121 by filing an application with FERC requesting a license amendment to include portions of this MOU and related agreements that will be jointly developed by the Agencies and PG&E as part of the license amendment application process. Unless otherwise provided in this MOU, PG&E will fund the production of the license amendment application, including preparing the application sections describing the current and proposed

facilities and operation, project economics, and modifying the existing License Exhibit drawings to show the proposed changes. Funding for responses to any subsequent additional information requests issued by FERC regarding the responsibilities enumerated in this Section will be borne by PG&E.

- D.** PG&E will provide the bypass and ramping flows identified in this MOU, and any agreed-upon future changes to those flows resulting from the Adaptive Management Plan described in this MOU, until the end of the current FERC license and any subsequent annual licenses. The Parties acknowledge that this commitment to provide bypass and ramping flows may be subject to change by FERC during the license amendment process and at the expiration of the current license term in 2026, or revocation or permanent project shut-down. PG&E and the Resource Agencies (subject to state and federal laws) agree to support continuation of such bypass and ramping flows, and any agreed upon future changes to those flows, in any relicensing proceeding for FERC Project No. 1121.
- E.** PG&E's water diversion rights associated with all dams to be decommissioned in the Restoration Project Area shall be transferred to CDFG. PG&E shall execute a deed or other mutually agreed upon document to transfer these water diversion rights. ~~PG&E will execute such deeds or other mutually agreed upon documents prior to PG&E's receipt of those associated incremental funds specified in Section 10.2. —Based on the assumption that all PG&E water rights on the South Fork of Battle Creek have an equal priority, water rights transferred to PG&E will provide bypass flows in the amounts specified in Attachment I, or as developed pursuant to the Adaptive Management Plan, and CDFG agrees that the water rights transferred to CDFG shall not be used by CDFG or any successor in interest, assignee, or designee to increase bypass flows above the amounts specified~~

in Attachment 1 to this MOU, or developed pursuant to the Adaptive Management Plan until such time as the FERC license is abandoned. If the license for FERC Project No. 1121 is abandoned, then the limitation regarding transferred water rights no longer applies.

PG&E and CDFG shall jointly file a petition with the State Water Resources Control Board (SWRCB) pursuant to Water Code Section 1707 to dedicate the water diversion rights to instream uses at the decommissioned dam sites in the Restoration Project Area. PG&E and the Resource Agencies, agree to support such a petition.

- F. The prescribed flows described in Attachment 1 to this MOU for all those dams remaining in FERC License No. 1121 will be included in a FERC license amendment request made by PG&E.

PG&E is responsible for operation, maintenance, and replacement of all physical modifications to its facilities under this MOU on Battle Creek due to normal wear and tear and catastrophic damage, and ensuring that the new fish screen and ladder facilities meet the "fail-safe" criteria. Installation costs of facilities installed under the Adaptive Management Fund protocols are excepted. PG&E's responsibilities under this section begin once the facility start-up and acceptance testing is successfully completed by the USBR and PG&E accepts and takes over the facilities. PG&E acceptance shall not be unreasonably withheld.

PG&E is responsible for assisting in design data collection activities for all facilities as determined under the cooperative design processes established through the Project Management Team and Technical Teams as described in Section 8.2.

- I. PG&E, in the design process established under Section 8.2, is jointly

responsible along with the other Parties for review and concurrence of all designs, engineering, specifications, facility modifications, decommissioning procedures, facility removal, and other activities associated with implementation of the recommendations of the Restoration Project. PG&E will have lead responsibility for real estate requirements and transactions. Real estate actions will be carried out in cooperative process through the Project Management Team and Technical Teams as established in Section 8.2. Real estate actions shall be subject to review and concurrence by USBR and other Parties in the cooperative design process through the Project Management Team and Technical Teams. PG&E shall also be responsible along with other Parties for the development, review, and concurrence of site restoration plans and designs subject to any requirements established through the permitting process. While the USBR will be the lead agency in obtaining permits as described in Section 6.2, such permitting actions will be done in full cooperation with the Parties to ensure input from PG&E related to the content and conditions established in the permitting process. The technical efforts associated with these functions will be performed on a reimbursable basis from funding provided through USBR.

- J. While the USBR retains lead responsibility for all design, procurement, and construction associated with the proposed facilities, situations may arise in which it would be more safe and efficient for PG&E construction crews to perform the construction or removal of some facilities. PG&E may perform construction work associated with the Restoration Project as coordinated through the framework of the Project Management Team as described in Section 8.2. Such cooperative decisions related to construction responsibilities will be completed by the end of the conceptual design phase. Such construction work will be performed on a reimbursable basis from funding provided through USBR.

- K. Contracts will be awarded in accordance with all state and federal law. For contracts awarded by USBR, USBR will confer with PG&E regarding the selection of contractors or other entities for any portion of the work to be performed as part of the Restoration Project. For any contract awarded by the USBR that is not a straight sealed bid, a representative from PG&E will be a member of the team for reviewing and recommending the award of these contracts. Under this process recommendations by the reviewing team will be made to the USBR Contracting Officer. The final decision on who should be awarded a particular contract will be made by the USBR Contracting Officer. If the USBR decides that it does not intend to follow PG&E recommendations, USBR will provide a written statement explaining why USBR chose not to follow the PG&E recommendations.
- L. PG&E may elect to conduct its own inspection of construction work performed by others as part of the recommendations of the Restoration Project. Any findings or deficiencies will be immediately reported to the USBR Construction Engineer. USBR will review and respond to PG&E on any issues including how they will be addressed. Any disagreements will be subject to dispute resolution processes developed by USBR and PG&E. Such inspection service will be performed on a reimbursable basis from funding provided through USBR.
- M. PG&E is responsible for all monitoring required by FERC in the FERC license for FERC Project No. 1121, except that monitoring specified in Section 7.3 which is the responsibility of the Resource Agencies. PG&E shall be responsible for specifically fund all the facility monitoring more particularly described in Section 7.2 and 7.4 of this MOU.
- N. PG&E will also participate in and provide limited internal technical and fishery expertise to the biological and environmental monitoring and will

assist in analyses, review results and identify potential Adaptive Management measures for the Restoration Project.

- O. PG&E shall assume the role of project applicant for hydropower project operation compliance with Section 404 of the Clean Water Act, Certification under Section 401 of the Clean Water Act and ESA and other applicable state and federal laws.
- P. ~~To the extent permissible under the provisions of its existing easements with private property owners, PG&E will provide access to Agency representatives engaged in the performance of their respective responsibilities under this Restoration Project. Protocols for Agency exercise of this access permission will be developed addressing (1) property owner concerns, (2) PG&E notification, (3) liability issues and any other pertinent matters associated with the specific locations; and (4) property owner notification.~~

## 6.2 USBR

- A. USBR, along with the Resource Agencies, has applied to CALFED for public funding for the Restoration Project and will continue to support that application, consistent with the terms of this MOU (see Attachment 1
- B. USBR shall assume the role of lead agency, for purposes of construction compliance for the Restoration Project, with the National Environmental Policy Act (42 U.S.C. 4321 et seq. (NEPA)), Section 106 of the National Historic Preservation Act [cite], and the Fish and Wildlife Coordination Act (16 U.S.C. 661-666(c)) and shall act as federal action agency under Section 7 of the federal ESA for the construction aspects of the Restoration Project in a joint consultation with FERC acting as lead agency.

- C. USBR shall, assume the role of lead agency and in consultation with PG&E, arrange for all final engineering design documents and specifications, construction, start-up and acceptance testing, and implementation of mitigation and monitoring for the construction activities associated with the Restoration Project, as defined in Section 4.1 of this MOU. USBR shall be responsible for the production of the required environmental documents and the detailed decommissioning plan, with all the supporting engineering, biological, and other technical studies, and preparation of the design drawings needed for the license amendment. Funding for responses to any subsequent additional information requests issued by FERC regarding the responsibilities enumerated in this Section will be borne by USBR.
- D. USBR shall assume the role of project applicant for purposes of construction compliance of the Restoration Project with Section 404 of the Clean Water Act, Certification under Section 401 of the Clean Water Act and other applicable state and federal laws.
- E. USBR will participate monitoring for the restoration effort more particularly described in Section 7.1 involving the construction of the Restoration Project.

### 6.3 NMFS

- A. The Parties acknowledge and agree that NMFS has made no determination and is giving the Parties no assurances regarding compliance of the Restoration Project or PG&E's operation of its FERC Project No. 1121 with the Federal ESA

- B. NMFS agrees to do the following, to the extent NMFS determines that these

provisions are consistent with the biological opinion rendered for the proposed action and its responsibilities under the ESA to conserve threatened and endangered species and their habitats:

1. Support a petition to the SWRCB for the instream dedication of that amount of water diversion rights transferred by PG&E to CDFG and more fully described in Subsection 6.1(E) of this MOU.
  2. Support the amendment of the license of FERC Project No. 1121 to incorporate the facility modifications described in Section 4.1 of this MOU and flow increases described in Tables 1 and 2 of Attachment 1 to this MOU and further support the position that FERC focus the license amendment on the fishery restoration actions described in this MOU in order to streamline the process for a FERC decision allowing the Restoration Project to go forward in a timely manner.
  3. In the next relicensing proceeding for FERC Project No. 1121, support the continuation of the prescribed flows described in Attachment 1, any changes to those flows resulting from the Adaptive Management Plan, any otherwise agreed upon future changes to those flows, and the ramping flows described in Section 4.2 of this MOU, subject to applicable law.
- C. ~~The Biological/Environmental monitoring that will be performed pursuant to this MOU is more particularly described in Section 7.3. Regarding the Biological and Environmental monitoring described in Section 7.3, there,~~ NMFS agrees to support incorporating Battle Creek monitoring needs into appropriate basin wide CVPIA and CALFED monitoring programs.
- D. Approving and implementing various activities described in the MOU will

result in a Major Federal Construction Activity affecting listed salmonids under NMFS' jurisdiction. NMFS will, therefore, conduct the requisite Section 7 consultation for species under its authority. The above measures will require FERC to exercise its federal discretionary authority in approving an amendment of license prior to implementation. This action, as well as FERC's continuing oversight over FERC Project No. 1121 project operations, constitutes a Federal Action for the purposes of Section 7 of the ESA. Therefore, FERC will be designated Lead Federal Agency. The above Section 7 consultation will also encompass those planning and construction related activities to be undertaken by the USBR and therefore, will be conducted jointly with the FERC and the USBR. NMFS will consult with FERC and the USBR under Section 7 of the Endangered Species Act to determine if the proposed changes to the facilities and operation of the FERC Project No. 1121 comply with ESA.

#### 6.4 USFWS

- A. The Parties acknowledge and agree that USFWS has made no determination and is giving the Parties no assurances regarding compliance of the Restoration Project or PG&E's operation of its FERC Project No. 1121 with the Federal ESA.
- B. USFWS agrees to do the following:
  - 1. Support a petition to the SWRCB for the instream dedication of that amount of water diversion rights transferred by PG&E to CDFG as more fully described in Subsection 6.1(E) of this MOU.
  - 2. Support the amendment of the license of FERC Project No. 1121 to incorporate the facility modifications described in Section 4.1 of this

MOU and flow increases described in Tables 1 and 2 of Attachment 1 to this MOU and further support the position that FERC focus the license amendment on the fishery restoration actions described in this MOU in order to streamline the process for a FERC decision allowing the Restoration Project to go forward in a timely manner.

3. In the next relicensing proceeding for FERC Project No. 1121, support the continuation of the prescribed flows described in Attachment 1, any changes to those flows resulting from the Adaptive Management Plan, any otherwise agreed upon future changes to those flows, and the ramping flows described in Section 4.2 of this MOU, subject to applicable law.

C. ~~The Biological/Environmental monitoring that will be performed pursuant to this MOU is more particularly described in Section 7.3. Regarding the Biological and Environmental monitoring described in Section 7.3, there,~~ USFWS agrees to support incorporating Battle Creek monitoring needs into appropriate basin wide CVPIA and CALFED monitoring programs.

D. Approving and implementing various activities described in the MOU will result in a Major Federal Construction Activity that may affect species under USFWS jurisdiction. USFWS will, therefore, conduct the requisite Section 7 consultation for species under its authority. The above measures will require FERC to exercise its federal discretionary authority in approving an amendment of license prior to implementation. This action, as well as FERC's continuing oversight over FERC Project No. 1121 project operations, constitutes a Federal Action for the purposes of Section 7 of the ESA. Therefore, FERC will be designated Lead Federal Agency. The above Section 7 consultation will also encompass those planning and construction related activities to be undertaken by the USBR and therefore, will be

conducted jointly with the FERC and the USBR. USFWS will consult with FERC and the USBR under Section 7 of the Endangered Species Act to determine if the proposed changes to the facilities and operation of the FERC Project No. 1121 comply with ESA.

## 6.5 CDFG

- A. The Parties acknowledge and agree that CDFG has made no determination and is giving the Parties no assurances regarding compliance of the Restoration Project or PG&E's operation of its FERC Project No. 1121 with applicable state law.

- ~~B. The Parties acknowledge and agree that CDFG is not responsible for funding any component of the Restoration Project, including but not limited to cost overruns.~~

- C. CDFG agrees to do the following:

1. CDFG and PG&E shall jointly file a petition with the State Water Resources Control Board (SWRCB) pursuant to Water Code Section 1707 to dedicate the water diversion rights to instream uses at the decommissioned dam sites in the Restoration Project Area.
2. Support the amendment of the license of FERC Project No. 1121 to incorporate the facility modifications described in Section 4.1 of this MOU and flow increases described in Tables 1 and 2 of Attachment 1 to this MOU and further support the position that FERC focus the license amendment on the fishery restoration actions described in this MOU in order to streamline the process for a FERC decision allowing the Restoration Project to go forward in a timely manner.

3. In the next relicensing proceeding for FERC Project No. 1121, support the continuation of the prescribed flows described in Attachment 1, any changes to those flows resulting from the Adaptive Management Plan, any otherwise agreed upon future changes to those flows, and the ramping flows described in Section 4.2 of this MOU, subject to applicable law.

D. ~~The Biological/Environmental monitoring that will be performed pursuant to this MOU is more particularly described in Section 7.3. Regarding the Biological and Environmental monitoring described in Section 7.3, there,~~ CDFG agrees to support incorporating Battle Creek monitoring needs into appropriate basin wide CVPIA, CALFED, and other monitoring programs.

## 7.0 MONITORING AND REPORTING

### 7.1 Construction Monitoring, Start-up, and Acceptance Testing

USBR agrees to perform all construction monitoring and reporting required as part of construction of the Restoration Project. Funding for the construction monitoring will be derived only from the CALFED funding, and the USBR does not hereby agree to spend any additional, non-CALFED money to perform such construction monitoring. Construction monitoring includes: those parameters required by the permits developed pursuant to the Clean Water Act [cite], and mitigation actions adopted pursuant to CEQA, NEPA, ESA, and related FERC requirements.

USBR agrees to perform all start-up and acceptance testing, prepare necessary documents and reports, up to and until, PG&E and the USBR determine that the constructed facilities' operation meets the design criteria. Completion inspections for each Construction Contract will be performed by

both USBR and PG&E and certifications of approval will be issued by both USBR and PG&E. If construction of a particular project feature does not meet with the satisfaction of either party, a checklist of needed work that must be completed prior to certification will be prepared and agreed to by both parties. Upon mutual agreement of the parties, a completed portions of the Construction Contract or project feature may be turned over to PG&E for operation and maintenance.

Start up acceptance testing for both screens and ladders will include, but is not limited to, measurements of velocity and flow collected from each component of the structure at several stage heights to evaluate actual hydraulic performance and reliability over the full range of operating conditions as compared to the design specifications.

## 7.2 Facility Monitoring

~~In addition to FERC mandated monitoring under the amended license for FERC Project No. 1121, PG&E shall perform and pay for the following facility monitoring:~~

- A. At each of the dams that remain on the various outlet and spillway works releasing water to the stream, operate properly calibrated remote sensing devices that continuously measures and records an accurate estimate of total flow and the fluctuation of the total flow below each dam during all operations. All flow recording methodology shall be approved by FERC.
- B. At the fish ladders operate properly calibrated remote sensing devices that continuously measure and record water surface elevations at top and bottom of the ladder to identify debris problems. In addition, continuously operate calibrated automated fish counter or an underwater video to document fish movement through the ladder during a three year period.

- C. At fish screens, monitor properly calibrated remote sensing devices that continuously measure and record water surface elevation differences on the inlet and outlet side of screens to identify plugging.

The Parties shall prepare a more detailed monitoring plan, as described in Section 9.1A and 9.1A2(b) to be submitted to FERC as part of the license amendment application.

### 7.3 Biological and Environmental Monitoring

The Biological and Environmental Monitoring addresses overall status of the fish populations and ecosystem health in the Battle Creek watershed, which includes the Restoration Project Area. The Parties understand and agree that the Biological and Environmental Monitoring in the watershed and Restoration Project Area will be performed by USFWS and/or CDFG using available funding from Central Valley fishery restoration funding sources, include but are not limited to, CALFED's one million dollar allocation for this project and the Comprehensive Monitoring Assessment Research Program; and CVPIA's Comprehensive Assessment and Monitoring Program. The Parties understand and agree that if sufficient funding is not available through normal sources they will jointly pursue and support other appropriate funding sources.

The Biological/Environmental monitoring will include:

Estimates of the number and species of upstream migrant salmonids entering upper Battle Creek via the fish ladder at Coleman National Fish Hatchery Barrier Weir using underwater video or automated fish counters and intermittent use of fish trapping facility to sample individual fish for species/run identification.

Estimates of the relative abundance and distribution and emigration timing of adults in the Battle Creek watershed estimated using the most efficient and safe method

for the particular stream reach, including underwater observation, carcass, redd and/or aerial surveys.

Estimate the relative abundance, distribution, and emigration timing of juveniles using screw trap installations in the Battle Creek watershed above Coleman National Fish Hatchery.

Characterize the temperature regime in the Battle Creek watershed by continuously measuring and recording temperatures in the Battle Creek system during the spring through fall period.

Examine the fish passage conditions at natural obstacles that change in the stream canyon areas over time, such as clusters of debris and boulders, by observing these areas during other fish survey activities and more detailed analysis at sites that undergo major reconfiguration.

The Biological and Environmental Monitoring described above is beyond the scope of PG&E's facility monitoring described in Section 7.2 and any such monitoring of FERC Project No. 1121 impacts required by FERC. PG&E agrees at its own cost to participate in the Biological/Environmental Monitoring efforts described above and/or use analyses using internal technical and fishery expertise.

The Parties shall prepare a more detailed monitoring plan, as described in Section 9.1A and 9.1A2(b) to be submitted to FERC as part of the license amendment application.

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#### 7.4 All Other Monitoring

The Parties agree that all monitoring of Restoration Project actions, other than that described in Section 7.1 and 7.3 of this MOU, and that is necessary or required pursuant to the license for FERC Project No. 1121 will be done by PG&E at its sole cost. A proposed monitoring program will be developed by Consensus with the Resource Agencies and PG&E and submitted to FERC as part of the license amendment application.

## 7.5 Reporting and Notice Requirements

All facility monitoring of water amounts and surface elevations in screens, ladders, below dams, and below canal gates to the stream shall be made available ~~annually~~ to FERC, ~~and to~~ ~~and to~~ the Resources Agencies ~~and CALFED~~ upon specific request. The fish use records at the fish ladders shall be made available monthly to the Resource Agencies during the three year period. Upon discovery of any instance of operation outside of the requisite specifications for any of the screens, ladders, or water release mechanisms notification will be made to NMFS and CDFG by the next day of operation. The notification shall include the description of the exceedance, necessary corrective measures taken or proposed, and the implementation schedule if the situation has not been corrected.

All ~~B~~biological ~~and E~~environmental ~~M~~monitoring results and analyses will be presented in annual reports that will be made available to ~~the Parties, CALFED and other interested persons~~ parties upon request.

## 8.0 PLANNING, PERMITTING, AND CONSTRUCTION ACTIVITIES

### 8.1 Schedule

The Parties agree to use their best efforts to implement the Restoration Project according to the schedule attached as Attachment \_\_. [~~usbr is developing a schedule~~]. The Parties shall use their best efforts to complete the planning and construction activities on the South Fork on a priority basis related to biological criteria.

### 8.2 Organizational Structure and Responsibilities

Planning, permitting and construction of the Restoration Project will be implemented through a collaborative effort. The basic organizational structure will consist of a: (1) Project Management Team (PMT), (2) Project Manager, and (3) Technical Team (TT).

**A. Project Management Team**

The PMT is a management level group that will make all final decisions regarding planning, permitting, and construction of the Restoration Project through the Consensus process. Membership in the PMT consists of representative(s) from each of the Parties, DWR and the SWRCB. For purposes of determining Consensus, each of Parties of this MOU and DWR and SWRCB will be afforded one vote. The PMT decisions shall address, but shall not be limited to, the planning, permitting, and construction of the Restoration Project, including issues related to policy; design; plans and specifications; scheduling; real property and relocation requirements; real property acquisition; contract awards and modifications; contract costs; cost projections; final inspection of the entire Restoration Project or functional portions of the Restoration Project; preparation of the proposed OM&R manual; anticipated requirements and needed capabilities for performance of operation, maintenance, and repair, replacement, and rehabilitation of the Project; and other related matters. The PMT shall direct and manage the Technical Team and resolves any disputes among the Technical Team that has been elevated to the PMT by the Technical Team. In addition, the PMT may make recommendations to the Technical Team through the Project Manager that it deems warranted on matters that the PMT generally oversees, including suggestions to avoid potential sources of dispute.

Funding for the administrative, clerical, and support facilities for the PMT will be provided by CALFED funding. The Chair of the PMT will be a USBR representative.

**B. Project Manager**

The Project Manager is an employee of the USBR responsible for coordinating the implementation of activities with the Parties, other appropriate interested parties, and all state and federal agencies with jurisdiction over some aspect of the Restoration Project. The Project Manager is a member of the PMT and, after the effective date of this MOU, will meet at appropriate frequency with the Technical Team Leads to assess Restoration Project status and to facilitate coordination.

**C. Technical Team**

The TT is a collaborative group established to implement technical issues expected to arise pertaining to the mechanics of implementing the Restoration Project. Membership in the TT consists of representative(s) from each of the Parties, DWR and the SWRCB with appropriate training and experience to effectively address the technical aspects of implementing the Restoration Project.

The Technical Team will be responsible for the necessary day-to-day actions required to implement the planning, design, and construction decisions by the PMT. Disciplines coming under the responsibility of the TT include, but are not limited to, environmental ~~ESA~~ compliance, construction monitoring, planning activities, engineering and design, permitting, real estate actions, public involvement, and construction. Any unresolved technical issues will be referred to the PMT.

Funding for the administrative, clerical, and support facilities for the Technical Team will be provided by CALFED funding. The Chair of the Technical Team will be the Project Manager.

### **8.3 Planning Activities**

Planning includes all activities associated with NEPA/CEQA compliance, all permitting actions, design data collection, conceptual designs, designs, specification preparation, real estate acquisition, public involvement, quality control, and procurement processes leading to construction.

### **8.4 Construction Activities**

Construction implementation will be carried out by USBR unless otherwise determined cooperatively between the USBR and PG&E. The following schedules will be submitted by the responsible construction agency:

- A. A master work schedule showing the construction work to be performed or caused to be performed by USBR under this MOU, including total estimated costs for work accomplishments each Fiscal Year (October 1 to September 30).;
- B. A detailed schedule for the initial construction Quarter consistent with the master work schedule specifying the work to be performed during the construction Quarter, including the amount of funds required during that Quarter for the work scheduled and including sums expended for the preparation of designs and specifications, engineer's estimates, other pre-construction activities required to initiate construction and construction activities; and
- C. Subsequent detailed Quarterly work schedules consistent with the master work schedule specifying the work proposed to be performed or initiated during each Quarter of the construction period other than the initial Quarter including the amount of funds required during each Quarter.

The Parties responsible for construction at a particular site, whether it be Reclamation or PG&E, will provide each other written progress reports on a weekly basis or such other

time period as mutually agreed to by the PMT. Any and all construction work undertaken by the Parties pursuant to this MOU shall be open and subject to inspection by the other Party or their representative at all times during the progress thereof and upon completion. Should either Party determine that any such construction work is not being performed, or has not been completed, in accordance with applicable schedules, reviewed plans, designs and specifications, or any other requirement of this MOU, then the Party shall give written notice thereof to the other Party within 30 days after inspection. This notice shall specify the corrective actions which must be taken and the schedule for their completion. The Parties agree to provide each other with copies of claims, change orders, and correspondence involving major cost or design changes between themselves and third party contractors performing any of the construction of the facilities.

The Parties agree to provide each other with a summary of costs incurred in the performance of this MOU on a quarterly basis. At the conclusion of construction of the improvements, the Parties shall furnish each other with an accounting of the final costs of their respective contributions to the completed improvements.

All work should be performed under the agreement (regards of which entity) should be in accordance with Reclamation Safety and Health Standards, any PG&E standards, OSHA, and Cal-OSHA. In the event of any conflicts, the most stringent requirements shall apply.

### **8.5 Public Participation**

All PMT and TT meetings will be open to any interested parties. Additional opportunities for public participation shall be afforded through the NEPA/CEQA and FERC license amendment processes.

## **9.0 ADAPTIVE MANAGEMENT COMPONENT OF THE RESTORATION PROJECT**

The Parties agree that Adaptive Management is an integral component of the Restoration Project. Adaptive Management is a process to examine alternative strategies and actions solely for meeting measurable biological goals and objectives through research and/or monitoring, and then, if necessary, to make adjust timely adjustments future restoration

actions according to what is learned.

The primary reason for using an Adaptive Management process is to allow for changes in the restoration strategies or actions that may be necessary to achieve the long-term goals and/or biological objectives of this Restoration Project and to ensure the likelihood of survival and recovery of naturally spawning salmon and steelhead. Under Adaptive Management, the restoration activities under the Restoration Project will be monitored and analyzed to determine if they are producing the desired results (i.e., properly functioning habitats).

As implementation of the Restoration Project proceeds, results will be monitored and assessed. If the anticipated goals and objectives are not being achieved, then adjustments in the restoration strategy or actions will be considered through the Adaptive Management Plan. The Adaptive Management Plan of this Restoration Project will include a statement of goals and objectives, a monitoring component, assessment protocols, the role of public participation and an outline of agreed-upon potential future adjustments to the Restoration Project. -See Attachment number [redacted] which provides general guidance for development of the Adaptive Management Plan. A Water Acquisition Fund and an Adaptive Management Fund are elements of the Adaptive Management Program as tools to provide funding for potential changes to the Restoration Project actions that result from application of the Adaptive Management Plan.

## 9.1 Adaptive Management Plan

The Adaptive Management Plan will be submitted by PG&E to FERC at the time that PG&E files its application to FERC for a license amendment pursuant to this MOU. The Parties acknowledge that implementation of the Adaptive Management Plan could later involve proposals for changes in operations, project facilities, or decommissioning of Project No. 1121 facilities to improve biological effectiveness and which meet NMFS-adopted criteria.

The Parties agree for the term of the existing FERC license, and any subsequent annual licenses, the instream flows developed by the Adaptive Management Plan will not be lower than those flows specified in Attachment I, unless agreed to by the Resource Agencies, and submitted to FERC for approval. The Parties acknowledge that the Resource Agencies cannot waive their responsibilities under Federal and state law, and specifically reserve their jurisdiction under ESA and other Federal and state laws.

#### **A. Plan Development**

The Adaptive Management Plan will include a statement of the Restoration Project goals and objectives, a monitoring component, protocols for assessing information and formulation of recommended changes, general procedures for prioritizing expenditures of Adaptive Management Fund (see Section 9.2 A) and Water Acquisition Fund (see Section 9.2 A), general procedures for modifying management approaches using new sound scientific data, the role of public participation, and will an outline of the agreed-upon scope of future adjustments to the Restoration Project. The Adaptive Management Plan shall be developed through the Consensus process with the Parties prior to filing a license amendment application with FERC. The Adaptive Management Plan will include milestones, timelines, and trigger points for consideration of changes.

The duration term of the Adaptive Management Plan will coincide with the duration of this MOU and will include milestones that are reviewed at scheduled intervals throughout the duration of the MOU.

#### **Participants**

The Adaptive Management Plan will be developed by Consensus among the Resource Agencies and PG&E. Interested persons may attend any meeting and contribute to discussions regarding development of the Adaptive

Management Plan. Specific notice, in addition to any general notice, of any such meetings will be sent to: (1) the Battle Creek Watershed Conservancy (representing local stakeholders); (2) CALFED; and (3) any party requesting such notification.

## **Elements**

### **Goals and Objectives**

Biological goals are the broad guiding principles for the Adaptive Management Plan; they are the rationale behind the minimization and mitigation strategies and/or actions. Specific biological objectives are the measurable targets for achieving the biological goals. The goal of the Adaptive Management Plan is to implement specific actions to protect, restore, enhance, and monitor salmonid habitat at FERC Project No. 1121, to guard against straying and to ensure that salmon and steelhead fully access and utilize available habitat in a manner that benefits all life stages and thereby maximizes natural production, fully utilizing ecosystem carrying capacity. The provisions of the Adaptive Management Plan will include measurable biological objectives. Those biological goals and objectives must be based on the best scientific information available and reflect the realistic potential of the Restoration Project to restore the salmonid fishery in Battle Creek, a part of the greater Sacramento River watershed. The biological goals and objectives of the Adaptive Management Plan will integrate habitat and , multispecies-specific needs (see Recital 1.0D ).

### **Monitoring**

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The goal of the monitoring component of the Adaptive Management Plan is to ensure proper data collection and analysis to guide appropriate adjustments to the Restoration Project. The monitoring component will obtain the information necessary to assess compliance, Restoration Project results, and to verify progress toward the established biological goals and objectives (see section 7). Specific reporting requirements will be an integral part of the monitoring component to assure appropriate dissemination of data collected. Frequency, organization, and content of reports that differ from Section 7.5 will be determined through Consensus in the development of the Adaptive Management Plan.

~~The monitoring will consist of two types: Compliance monitoring (referred to as Facility Monitoring in Section 6.2 herein) and effects and effectiveness monitoring (referred to as Biological/Environmental Monitoring in Section 6.3 herein). The effects and effectiveness monitoring determine if the anticipated positive of the Restoration Project are occurring and progress toward the biological goals and objectives is being achieved.~~

~~The monitoring component plan will~~ should be flexible to allow modification, if necessary, based on the need for additional information or to assess unanticipated outcomes. The monitored parameters will reflect the biological objective's measurable units (e.g., if the biological objective is stated in terms of ~~estimated number of salmon~~, the monitoring component should ~~of estimated~~ describe procedures for measuring the estimated number of salmon). The monitoring component will be based on best science available and use standard, previously established surveying and other protocols. The monitoring component will also clearly designate responsibility for the

various aspects of monitoring based on the outlines contained in Sections 7.2, and 7.3, herein, and specify the measures the Parties will adopt to ensure adequate funding for their respective future monitoring responsibilities.

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**(c) Assessment**

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The information obtained through monitoring will be cooperatively analyzed and evaluated according to protocols discussed in Section 9.1.B to assess the results of restoration actions relative to established goals and objectives. Information acquired will be used to determine the need for adjusting goals, altering the monitoring program to obtain additional data, or development of recommended modifications to restoration actions already in place.

**Implementation**

Adaptive Management is an integral part of the post-construction implementation of the Restoration Project. The basic organizational structure of the Adaptive Management effort will consist of an: (1) Adaptive Management Policy Team (AMPT), and (2) Adaptive Management Technical Team (AMTT).

**1A. Adaptive Management Policy Team**

The AMPT is a management level collaborative group that will make all final decisions regarding the implementation of to facilitate the Adaptive Management component of the Restoration Project. Membership in the AMPT consists of representatives from each of the Resource Agencies, and PG&E. The members of the AMPT will ensure that they are familiar with

~~adaptive management methodologies adopted by CALFED -Interested persons may attend any AMPT meeting and contribute to discussions. Specific notice, in addition to any general notice, of any such meetings will be sent to (1) the Battle Creek Watershed Conservancy (representing local stakeholders), (2) CALFED, and (3) any person requesting such notification.~~

The AMPT shall provide policy direction and resolve any disputes among the AMTT by Consensus as defined in Section 2.9. In the event that the AMPT is unable to reach Consensus within 30 days, procedures described in Section 14 Dispute Resolution shall be followed.

The Chair of the AMPT will rotate regularly as agreed upon by the AMPT

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## **2. Adaptive Management Technical Team**

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Membership in the AMTT consists of representatives from each of the Resource Agencies and PG&E with appropriate training and experience to effectively address the technical aspects of implementing the Adaptive Management Plan. Interested persons and contribute to discussions. Specific notice, in addition to any general notice, of any such meetings will be sent to: (1) the Battle Creek Watershed Conservancy (representing may attend any AMTT meeting local stakeholders) and (2) any interested person requesting such notification.

The AMTT will develop the Adaptive Management Plan for approval by the AMPT and implement the Adaptive Management component of the Restoration Project upon approval by FERC. The Chair of the AMTT will rotate regularly as agreed upon by the AMTT.

## 9.2 Adaptive Management Implementation Means

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### Water Acquisition Fund

#### Purpose of Fund

The Parties agree that a component of the Restoration Project will be a Water Acquisition Fund (WAF). The Parties further agree that the purpose of this WAF is to establish a ready source of money toward the possible future purchase of additional flows in Battle Creek developed through Adaptive Management during the ten (10) year period following the initiation of instream flow changes (listed in Attachment 1). The WAF shall be used solely for purposes of purchasing additional environmentally-beneficial flows pursuant to the protocols developed by the Resource Agencies and PG&E. The Parties acknowledge that if additional flows are determined by the Resource Agencies to be required pursuant to the protocols described in Section 9.2.A.3, ESA, or other applicable law, and: 1) the ten (10) year period described above has elapsed; and/or 2) there are not sufficient funds in the WAF or the Adaptive Management Fund to pay for such additional flows, then PG&E shall be responsible for the cost of such flows. The method of valuation of any additional environmentally-beneficial flows for the purpose of compensation from the WAF will be similar to that used for estimating foregone power in Attachment 1.

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#### B. Independent Water Management Fund Account

The WAF will be funded by CALFED and administered by the Resource Agencies following consultation with appropriate interested parties. USBR shall place \$3,000,000 in an account with a nonprofit third party within four

months of the CALFED funding. Account disbursement instructions will be developed jointly by the Agencies and PG&E The Resource Agencies and PG&E hereby authorize the USFWS to request disbursements from the WAF in writing, based on the account disbursement instructions.

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**C. Protocols for Administration of the Fund**

Protocols will be developed by the AMTT to identify environmentally beneficial flow changes for anadromous fish under the Adaptive Management Plan to be funded from the \$3,000,000 WAF.

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As provided in Attachment 1, if Consensus regarding flow changes is not achieved by the AMTT or AMPT, PG&E and the Resource Agencies (collectively), each will choose a person, and together those two persons will choose a single third party who will act as mediator. Each Party shall make its choice within 14 days from the date of any determination that a Consensus has not been achieved, and the third party mediator shall be chosen by those parties no later than 45 days from such date of determination that Consensus has not been achieved. These times may be extended by mutual agreement of the Resources Agencies and PG&E. If Consensus through mediation is still not achieved, the Resource Agencies and PG&E reserve their right to petition FERC to resolve the subject action. Resource Agencies and PG&E will be responsible for assuming their respective cost for any FERC process.

**4. Payment of WAF Moneys**

During the 10 year effective period of the WAF, payment to PG&E for agreed-upon instream flow changes will be made in arrears annually. After January 1 following the expiration of the WAF, all uncommitted funds will

revert to CALFED, or as otherwise provided by law. During the last year of the WAF, and to the extent that adequate moneys remain in the WAF, funds for agreed to instream flow changes which will be delivered after expiration of the WAF will be paid to PG&E in one lump sum based on the net present value of foregone energy for the period inclusive of the realized increased flows and expiration date of the current FERC license.

The method of valuation of any additional environmentally beneficial flows for the purpose of compensation from the WAF will be similar to that used for estimating foregone power in Attachment 1. The water acquisition cost shall be determined by multiplying the additional volume of water used for environmentally beneficial purposes times the value of power that this said water would have generated if the power diversions were not changed.

## **B Adaptive Management Management Fund**

### **Purpose**

The Parties agree that a component of the Restoration Project will be an Adaptive Management Fund (AMF) to implement actions as developed pursuant to the Adaptive Management Plan. The AMF shall be used only for Restoration Project purposes directly associated with FERC Project No. 1121 and as compensation for instream flow increases, after the exhaustion or termination of the WAF.

The AMF shall be used pursuant to the Adaptive Management protocols. This AMF shall be spent on unforeseen changes, including changes in the design of the fish screen and/or ladders built as a part of the Restoration Project, to improve biological effectiveness and which meet NMFS adopted criteria. The AMF shall not be spent on monitoring, or on construction cost

over-runs. The Parties further agree that the purpose of this Fund is to establish a ready source of money toward the possible future changes in the Restoration Project.

**B. Independent Adaptive Escrow Management Fund Account**

The Parties agree that a component of the Restoration Project will be an Adaptive Management Fund. This Fund, in the amount of \$3 million, will be made available to PG&E and the Resource Agencies by a third party, to fund those actions developed pursuant to the Adaptive Management Plan. The Third Party Donor shall place \$3,000,000 in an interest-bearing account upon execution of an MOU to be developed jointly by the Resource Agencies, PG&E, and the Third Party Donor. Escrow Account disbursement instructions will be developed jointly by the Agencies, the Third Party Donor and PG&E. The Fund will be administered by the Third Party Donor, pursuant to the terms of an MOU to be developed among the Resource Agencies, PG&E and the Third Party Donor. The Parties hereby agree that: (1) interest on the moneys in the Adaptive Management Fund will accrue to the account at a rate to be determined in the MOU and shall also be applied for changes to the Restoration Project pursuant to the Adaptive Management protocols; and (2) all uncommitted money in the Fund will revert to the Third Party Donor or its designee at the end of the current term of FERC License No. 1121. Further, the Parties hereby delegate to authorize the USFWS the authority and responsibility to request disbursements from the Adaptive Management Fund in writing, based on the protocols described in subsection (3C) below.

**E. Adaptive Management Fund Protocol**

Protocols will be developed by the AMTT to identify environmentally beneficial adaptive management actions to be funded from the AMF pursuant to the Adaptive Management Plan.

Protocols to determine appropriate actions to be funded by the Adaptive Management Fund will be developed by consensus among the Resource Agencies and P&E via Adaptive Management. Appropriate interested parties may attend any meeting discussing development of an AMF protocol; however, such parties will have an advisory role only and will not be counted to determine if consensus has been achieved. Specific notice in addition to any general notice of any such meetings will be sent to two interested parties: (1) the Battle Creek Watershed Conservancy (representing local stakeholders) and (2) a representative designated by other interested parties in the FERC proceeding generally representing environmental concerns.

For funding instream flow increases, the protocol will be the same as for the Water Acquisition Fund described in Subsection 9.2.A.3 of this MOU. For funding facility modifications, the protocol will be the same as that described in Subsection 9.2.A.3 of this MOU, with two exceptions: (1) no interim action would be implemented prior to any required FERC approval of a license amendment or other necessary action by FERC; and (2) for all actions resolved by FERC in which P&E is in the minority opinion, the Adaptive Management Fund will contribute sixty percent (60%) of any resulting facility modification cost; in the case of P&E being in the majority opinion, the Adaptive Management Fund will contribute one hundred percent (100%) of any resulting facility modification cost.

## 10.0 FUNDING

10.1 The total cost of the Restoration Project is currently estimated to be \$50,709,000. The

Agencies-USBR has applied have applied to CALFED for the allocation of federal funding in the amount of \$27,158,100. To date, CALFED has tentatively agreed to fund the Restoration Project in that amount, pending execution of this MOU. The balance of \$ 23,550,900 is expected to be made up of contributions from PG&E and a third party contribution of \$3 million.

Federal CALFED	—————\$27,158,100 (?)
PG&E	\$20,550,900
Third Party	\$3,000,000
	—————
	\$50,709,000

## 10.2 Federal Resource Agency Cost Sharing

The Federal portion of the Restoration Project funding will be derived from appropriations authorized under the California Bay-Delta Environmental Enhancement Act (P.L. 104-333). The Federal funding is appropriated as "no-year" funds that can be carried forward from one Federal fiscal year to the next without limitation. From the appropriated amount the Department of Interior, through the USBR, will authorize allotments for full financing of the Federal portion of the Restoration Project as approved in the CALFED process.

receipt the Agencies Subject to Section 5.0, Federal cost sharing includes: funding for all fish screens and fish ladders described in Section 4.1 of this MOU; payment for the connectors and full-flow bypasses at South and Inskip Powerhouses; payment for decommissioning studies for Wildcat, Coleman, Soap Creek, Lower Ripley Creek and South Diversion Dams; payment of all costs associated with decommissioning Wildcat, Coleman, Soap Creek, Lower Ripley Creek, and South Diversion Dams and affected related water conveyance facilities; start-up and acceptance testing of new facilities prior to transfer of operation and maintenance responsibilities to PG&E; any and all construction and decommissioning cost

overruns; any environmental permitting and documentation necessary for the Restoration Project, including any additional decommissioning studies that might be required by FERC; \$1 million toward payment for the Biological/Environmental Monitoring described in Section 7.3 of this MOU, except that PG&E will participate in such monitoring by contributing its internal technical and fishery expertise to participate in Biological/Environmental Monitoring; all required new or modified monitoring and record keeping equipment and facilities and stream gauging facilities needed to demonstrate compliance of the Restoration Project with FERC license conditions or needed for Adaptive Management purposes; assist in developing the Adaptive Management Plan more particularly described in Section 9.2 (A) of this MOU; deposit of \$3,000,000 into the Water Acquisition Fund more particularly described in Section 9.1 of this MOU; In addition, the Resource Agencies will make a one time lump sum deposits payment to an escrow account solely administered by PG&E in a total the amount of \$2,100,000 within two months of the Final FERC Order as compensation for 10% of the flows listed in Attachment 1 and estimated cost of foregone power during construction. Instructions will be developed by the Parties defining the timing of such deposits of funds based upon loss of generation due to scheduling for construction outages, decommissioning of facilities, or commencement of instream flows. PG&E will withdraw funds from this escrow account after the CPUC accepts the market valuation for the FERC Project No. 1121 Battle Creek hydroelectric project.

### 10.3 PG&E Cost Sharing

PG&E participation in the Restoration Project is an estimated \$20,550,900 contribution toward the Total Project Cost. This amount includes: providing ninety percent (90%) of the flows listed in Attachment 1 without compensation; payment of all costs due to increased operation and maintenance at remaining hydropower facilities; any incremental losses due to ramping rate requirements jointly determined by the Resource Agencies and PG&E; payment of all screen and ladder repairs and replacements due to normal operations wear and tear, and catastrophic damage; and

other damage facility monitoring described in Section 7.2 of this MOU; payment of all internal costs associated with any FERC license amendment necessary to implement the Restoration Project; and provision of technical and fishery expertise in developing and implementing the Biological/Environmental Monitoring described in Section 7.3 of this MOU.

#### 10.4 Third Party Funding

A Third Party Donor has agreed to will contribute a one time lump sum payment of \$3 million to establish an Adaptive Management Fund. As described in Subsection 9.2 (B) (2) of this MOU, the Third Party Donor will place the fund in an interest-bearing account and make payments from the fund based on the Adaptive Management Plan and the Adaptive Management Fund protocols contained herein and an in a separate MOU Agreement to be developed among the Parties and the third party donor.

### 11.0 LEASES OR SALE OF FERC PROJECT NO. 1121 PROJECT

PG&E agrees that any legal instrument conveying some or all of the project subject to of its interest in FERC License Project No. 1121 to a successor in interest owner will include the an obligation to assume PG&E's responsibilities and obligations under this MOU. PG&E further agrees that such obligations will run with the hydropower project FERC Project No. 1121 and be binding on all subsequent owners. *[Note: This paragraph relocated from Section 5.11]*

PG&E leases or sells all or any part of the hydroelectric project licensed pursuant to FERC License No. 1121 during the term of this MOU, then all obligations of PG&E contained in this MOU shall be made obligations of the lessee or successor owner by PG&E.

## 12.0 ENVIRONMENTAL AND OTHER LIABILITIES AND TRANSFER OF FACILITIES UPON COMPLETION OF CONSTRUCTION

{this section needs to be developed}

Investigations completed during the design phase will include any such surveys as determined appropriate by the technical team for any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (hereinafter "CERCLA"), 42 U.S.C. Sections 9601-9675, that may exist in, on, or under lands, easements, and rights-of-way that are determined to be required for the construction, operation, and maintenance of this Restoration Project. In the event it is discovered through any investigation, construction activity, or other means that hazardous substances regulated under CERCLA exists in, on, or under any lands, easements, or rights-of-way to be required for the construction, operation, or maintenance of the Project, PG&E and the USBR shall notify each other and other Parties to this MOU, and work shall not proceed until all Parties agree that activities should continue. Each of the Parties to this agreement, through the PMT, shall determine whether to initiate construction of the Project, or if already in construction, whether to continue with work on this Project, suspend future performance under this MOU, or terminate this MOU, for convenience of any of the Parties, in any case where hazardous substances regulated under CERCLA are found to exist. Should the Parties determine to initiate or continue with construction after considering any liability that may arise under CERCLA, PG&E shall be responsible for the costs of any studies and investigations necessary to determine an appropriate response to the contamination. Such costs shall not be considered a part of total project costs. In the event PG&E fails to provide any funds necessary to pay for clean up and response costs or to otherwise discharge its responsibilities under this paragraph upon direction of the other Parties to this MOU may, at its sole discretion, either terminate this MOU, suspend future performance under this MOU, or continue work on the Project.

PG&E and the Parties shall consult with each other in accordance with other provisions of this MOU in an effort to ensure that responsible parties bear any necessary clean and response costs as defined in CERCLA. Any decision made pursuant to this section shall not relieve any third party from any liability that may arise under CERCLA. PG&E shall be considered the operator of this Project for purposes of CERCLA liability. To the maximum extent practicable, PG&E shall operate, maintain, repair, replace, and rehabilitate the Project in a manner that will not cause liability to arise under CERCLA.

### 13.0 AMENDMENT PROCESS

This MOU may only be amended, in writing, by Consensus among the Parties.

### 14.0 DISPUTE RESOLUTION

In the event any ~~one of the Parties~~ to this MOU believes there is an issue regarding the interpretation of, or compliance with, any provision of this MOU, other than an issue involving determining protocols for funding instream flow increases utilizing the Water Acquisition Fund or the Adaptive Management Fund, that Party shall provide written notice of that issue to each of the other Parties. The Parties will then meet within Thirty (30) Days of the written notice, or at a later date by mutual agreement, in an effort to resolve the issue. If resolution is not achieved, PG&E and the ~~Resource Agencies~~ (collectively) will each choose a person, and together those two persons will choose a single third party who will act as mediator. ~~PG&E and the Agencies~~ Each party shall make ~~their~~ ~~its~~ respective choice within 14 days from the date of any determination that resolution has not been achieved, and the third party mediator shall be chosen ~~by those parties~~ no later than 45 days from such date of determination that resolution has not been achieved. These times may be extended by mutual agreement of the ~~Resources Agencies~~ and PG&E. If resolution through non-binding mediation is still not achieved, the ~~Resource Agencies~~ and PG&E shall petition FERC to resolve the subject action for those actions within FERC's jurisdiction. Any such petition shall include the administrative record of the mediation process. Resource Agencies and PG&E will be responsible for assuming their respective cost for any such FERC process. For those issues falling outside the scope of FERC's jurisdiction, ~~where if any one of the Parties fail to achieve resolution through the dispute resolution process described above, then~~  

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~~any one of the Parties may seek appropriate administrative and/or judicial remedies available.~~

15.0 TERM OF MEMORANDUM OF UNDERSTANDING

The Parties agree that this MOU shall be effective upon the last date of execution indicated in Section 176 of this MOU and will continue in effect until the expiration of the license for FERC Project License No. 1121, or July 31, 2026, whichever is earlier except to the extent as otherwise provided in the MOU.

16.0 TERMINATION

16.1 Prior to the issuance of a Final FERC Order, as defined in Section 2.8 ~~check section~~

~~no. after alphabetizing Section 2 of this MOU, amending License No. 1121 to incorporate the terms of this MOU, no Party may unilaterally withdraw from or terminate this MOU. Except as provided in Section 16.2, no Party may withdraw from or terminate its participation in this MOU. Prior to the issuance of a Final FERC Order, except by Consensus, withdrawal or termination may only take place by Consensus except as provided in Section 16.2.~~

~~16.2 16.2 The Parties understand and agree that this MOU is subject to regulatory approval by the FERC and the CPUC. PG&E or the Agencies may elect to withdraw from the MOU, after written notice to the other Parties and a good faith effort to resolve the concerns related to the material amendment in the event that following occurrences:~~

A. ~~Public and~~ Third Party funding, either from CALFED, CVPIA, CAMP, or other sources, is not adequate to fund all Agencies' commitments,

B. ~~The Agencies do not support the FERC license amendment developed from the terms of this MOU,~~

C. FERC approval is not granted.

D. The Final FERC Order, as defined in Section 2.8 of this MOU, is materially different from the terms and conditions of the MOU,

E. The CPUC approval is not granted,

F. The CPUC approval contains terms that are materially different from the terms and conditions of this MOU, or

G. PG&E abandons the Battle Creek FERC Project No. 1121.

## 17.0 SIGNATURES

This MOU may be executed in counterparts. A copy with all original executed signatures attached will be retained by USBR. USBR will distribute copies of the MOU with executed signature pages to all Parties to this MOU.

IN WITNESS WHEREOF, the Parties have caused this MOU to be executed as of the last date written below:

USFWS (Wayne S. White, Field Supervisor, Sacramento Fish and Wildlife Office) (date)

NMFS (Jim Bybee, ) (date)

USBR (Kirk C. Rodgers, Regional Director \_\_\_\_\_) (date)

CDFG (Robert Hight, Director) (date)

PG&E (E. James Macias, Senior Vice President \_\_\_\_\_) (date)

List of Attachments

- 1 Prescribed instream flows
- 2 Schedule for implementation (See 8.1)
- 3 Agreement in Principle (See 5.6)

Flow Ramping Criteria

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Flow Ramping Criteria

When returning water conveyance facilities to service following forced or scheduled outages where the available diversion flow has been released to the natural stream channel, the following criteria will govern the rate at which water is diverted from the stream back into the conveyance system:

Conveyance	Ramping Criteria*
North Battle Creek Feeder	0.3 f/hr stage drop at receiving base flow of 50 cfs or less
Cross-Country Canal	0.3 f/hr stage drop at receiving base flow of 50 cfs or less
Eagle Canyon Canal	0.3 f/hr stage drop at receiving base flow of 50 cfs or less
Inskip Canal	0.3 f/hr stage drop at receiving base flow of 70 cfs or less
Coleman Canal	0.3 f/hr stage drop at receiving base flow of 70 cfs or less

\* At background flows in excess of those specified, no ramping is required.

Regulation of diverted flow into the conveyance facility to meet ramping criteria will be performed using the associated canal flow gauge as the reference for incremental flow changes computed for the receiving base flow at the time ramping is commenced.

**Flow Ramping Criteria**  
 (NOTE: THIS SECTION HAS BEEN PROPOSED BY PG&E BUT HAS NOT BEEN  
 DISCUSSED BY THE PARTIES)

When returning water conveyance facilities listed below to service following forced or scheduled outages where the available diversion flow has been released to the natural stream channel, the following criteria\* will govern the maximum rate at which water is diverted from the stream channel back into the conveyance system.

Season	Ramping Rate
November 1 to May 31	2 inches/hour (0.17 ft./hr.)
June 1 to October 31	1 inch/hour (0.08 ft./hr.)

\* Ramping rates extracted from Battle Creek Salmon and Steelhead Restoration Plan by Kier Associates, January 1999, and the related source document Hydropower Flow Fluctuations and Salmonids: A Review of the Biological Effects, Mechanical Causes, and Options for Mitigation by Mark A. Hunter, State of Washington Department of Fisheries, September 1992, with Season adjusted per discussion with CDFG.

Ramping will not be required where the quantity of flow to be diverted back to the water conveyance system is the base flow present in the receiving stream reach at the start of the ramping cycle.

Monitoring of stream stage for ramping purposes will be at a confined, (i.e., narrow) stream transect immediately below the diversion point for the conveyance facility being returned to service, or at another appropriate location at the facility if a suitable transect is not available near the diversion point.

Water conveyance facilities covered by these provisions are:

- North Battle Creek Feeder
- Cross-County Canal
- Eagle Canyon Canal
- Inskip Canal
- Coleman Canal

Planned maintenance requiring dewatering of these conveyance facilities will be scheduled during the period of February 1 through April 30 in order to minimize potential effects on anticipated anadromous fishery life stages that may be present in the affected stream reaches. Duration of the actual outages will be that necessary to complete the work associated with

the conveyance facility itself