

Initial Study

Owens River Gorge Restoration Project



**Los Angeles Department of Water
Environmental Services
111 North Hope Street, Room 1044
Los Angeles, CA 90012**

February 2010

**CITY OF LOS ANGELES
OFFICE OF THE CITY CLERK ROOM 395.
CITY HALL LOS ANGELES, CALIFORNIA 90012**

**CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY AND CHECKLIST
(ARTICLE IV – CITY CEQA GUIDELINES)**

LEAD CITY AGENCY: City of Los Angeles Department of Water and Power 111 North Hope Street Los Angeles, CA 90012	COUNCIL DISTRICT(S): N/A	DATE: February 10, 2010
PROJECT TITLE/NUMBER: Owens River Gorge Restoration Project/Number: N/A		CASE NUMBER: N/A
PREVIOUS ACTIONS CASE NUMBER: None		
<p>PROJECT DESCRIPTION: The Proposed Project would involve the approval of a “Draft Stipulation for Entry of Final Judgment and Permanent Injunction: Order of Final Judgment and Permanent Injunction”, hereinafter referred to as the <i>Proposed Stipulated Judgment</i>. The signatories to the Proposed Stipulated Judgment are: the Mono County District Attorney, the Environmental Circuit Prosecutor, the County of Mono, the Los Angeles Department of Water and Power, and the California Department of Fish and Game (Parties). The purpose of the Proposed Project is to implement the Proposed Stipulated Judgment and thereby comply with Fish and Game Code Section 5937, which requires dam owners and operators to allow sufficient water to pass at all times through a dam “to keep in good condition any fish that may be planted or exist below the dam.” The flows established herein downstream from Upper Gorge power plant are accepted in satisfaction of this obligation to the extent permitted by law. The Parties believe these flows do not unreasonably interfere with, or disrupt the Los Angeles Department of Water and Power’s operation of facilities within the Gorge to respond to annual and seasonal water supply demands and hydroelectric power generation needs.</p> <p>The Proposed Project includes the restoration of water flows in an approximate 10 mile segment, or reach, of the Owens River Gorge (Gorge), located in Inyo and Mono Counties, California. The Proposed Project reach is located south of Crowley Reservoir and Long Valley Dam, between the Gorge’s Upper Gorge Power Plant (UGPP) and Pleasant Valley Reservoir. The primary objective of the Proposed Project is to comply with Fish and Game Code Section 5937 to the satisfaction of the Department of Fish and Game and to settle outstanding litigation on the matter. The Department of Fish and Game will determine if the Proposed Project will provide for keeping fish in good condition within the project reach and satisfy Fish and Game Code Section 5946, which states “no ... license to appropriate water (in portions of Mono and Inyo counties) shall be issued ... unless conditioned upon full compliance with section 5937.” LADWP presently holds license No. 10190 from the State Water Resources Control Board authorizing the diversion of water for hydro-generation purposes.</p> <p>The proposed flow restoration schedule includes specified <i>base flows</i> and <i>pulse flows</i>. Annual base flows would cycle through a ten year period with water releases ranging between 35 and 85 cubic feet per second (cfs), depending on month, cycle year, and power plant operational needs. Pulse flows would be released according to a 20 year cycle that would include two types of pulse flows, <i>channel maintenance</i> pulse flows, and <i>riparian recruitment</i> pulse flows. Channel maintenance pulse flows would occur in 13 years of every 20 year period; they would occur between March 1st and September 30th, have a total duration of 7 days, and a maximum release rate of 400 cfs in the section between UGPP and Middle Gorge Power Plant (MGPP), and a maximum release rate of 650 to 680 cfs in the section between MGPP and Control Gorge Power Plant (CGPP). Riparian recruitment pulse flows would occur in five years of every 20 year period; they would occur in late May or early June, and have a total duration of 27 days with a maximum release rate of 400 cfs in the section between UGPP and MGPP, and a maximum release rate of 650 to 680 cfs in the section between MGPP and CGPP. In the remaining two years of each 20 year cycle no pulse flows would occur.</p> <p>Implementation of the Proposed Project would be accomplished through the use of existing water conveyance facilities and structures located within the Gorge. Reinforcement of some existing structures within the Gorge would be necessary to accommodate peak pulse flows (protection of the tailbay release structure approximately 200 feet downstream of the UGPP; removal of the rock formation from the stream channel upstream of the stream-side transmission tower; realignment, stabilization, and reinforcement of the base of the stream-side transmission tower, and/or widening of the stream channel downstream; widening the stream channel and stabilization of the east and west banks at the waterfall above MGPP; repair of approximately 100 lineal feet of stream bank revetment along the west bank directly upstream of the MGPP; removal and replacement of the existing double bypass pipes and trash rack at the MGPP Tailbay Bypass structure; raising the elevation and</p>		

reinforcing the west bank along the access road approximately 2,350 feet downstream of the MGPP; breaking-up and removing the rock outcrop from east and west bank and boulders in the channel to alleviate the constriction in the stream channel approximately 1,300 feet upstream of the MGPP).

Additionally, the Proposed Project would include installation of a pool and weir fish ladder to bring an existing fish barrier into compliance with Fish and Game Code section 5901, which states that it is “unlawful to construct or maintain in any stream any device or contrivance that prevents, impedes or intends to prevent or impede, the passing of fish up and down stream.”

See also attached Initial Study.

PROJECT LOCATION: The Owens River Gorge is located between Crowley Reservoir in southwest Mono County, and Pleasant Valley Reservoir in northwest Inyo County, California. Long Valley Dam is located at the southern end of Crowley Reservoir. The incorporated City of Bishop is approximately 8.5 miles southeast of Pleasant Valley Reservoir.

PLANNING DISTRICT: N/A	STATUS: <input type="checkbox"/> PRELIMINARY <input type="checkbox"/> PROPOSED _____ <input type="checkbox"/> ADOPTED (Date): _____	
EXISTING ZONING: Open Space (Mono County) Open Space 40 Acre (Inyo County)	MAX. DENSITY ZONING: N/A	<input type="checkbox"/> DOES CONFORM TO PLAN
PLANNED LAND USE AND ZONE: Open Space (Mono County) Agriculture (Inyo County)	MAX. DENSITY PLAN: N/A	<input type="checkbox"/> DOES NOT CONFORM TO PLAN
SURROUNDING LAND USES: Open Space, Public Utilities, Recreation	PROJECT DESNITY: N/A	<input checked="" type="checkbox"/> NO DISTRICT PLAN

CEQA Initial Study

Owens River Gorge Restoration Project

February 2010

Chief Executive Officer and General Manager
S. David Freeman

Chief Operating Officer – Water System
James B. McDaniel

Manager, Aqueduct Business Group
Gene Coufal

Director of Environmental Services
Mark J. Sedlacek

Prepared by:

Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, CA 90012

Technical Assistance Provided by:

Aspen Environmental Group
30423 Canwood Street, Suite 215
Agoura Hills, CA 91301

and

ICF Jones & Stokes
17310 Red Hill Avenue
Irvine, CA 92614

Los Angeles  Department of Water and Power

Table of Contents

	Page
1. Initial Study Introduction.....	1
1.1 Overview	1
1.2 Regulatory Guidance	1
1.3 Lead Agency.....	1
1.4 Project Sponsor.....	1
2. Project Description	2
2.1 Project Location and Setting	2
2.2 Project Background	2
2.3 Project Objective	4
2.4 Proposed Project.....	4
Base Flows.....	5
Pulse Flows	5
Crowley Reservoir	11
Reinforcement of Existing Structures and Facilities.....	11
Fishway	12
2.5 Environmental Protection Measures.....	12
2.6 Public Agencies Whose Approval May be Required	13
3. Evaluation of Environmental Impacts and Mitigation Measures.....	17
3.1 Aesthetics	17
3.2 Agricultural Resources	18
3.3 Air Quality.....	19
3.4 Biological Resources	21
3.5 Cultural Resources	25
3.6 Geology and Soils	27
3.7 Hazards and Hazardous Materials	29
3.8 Hydrology and Water Quality	31
3.9 Land Use and Planning.....	33
3.10 Mineral Resources	35
3.11 Noise.....	35
3.12 Population and Housing	37
3.13 Public Services	38
3.14 Recreation.....	39
3.15 Transportation and Traffic.....	40
3.16 Utilities and Service Systems	42
3.17 Energy Supply	44
3.18 Public Health	45
3.19 Mandatory Findings of Significance	45
4. References	46
5. Report Preparation	49

List of Tables

1	Project Monthly Base Flow Schedule	6
2	Channel Maintenance Pulse Flow Hydrograph.....	9
3	Riparian Recruitment Pulse Flow Hydrograph	10
4	List of Preparers and Reviewers	50

List of Figures

1	Project Location.....	4
2	Owens Gorge Project Base Flows	8
3	Simulated Distribution of Base Flows for a Ten-Year Period.....	8
4	Channel Maintenance Pulse Flow Hydrograph	9
5	Riparian Recruitment Pulse Flow Hydrograph.....	11
6	Simulated Distribution of Pulse Flows for a Twenty Year Period	12

1. Initial Study Introduction

1.1 Overview

This Initial Study (IS) has been prepared by the City of Los Angeles Department of Water and Power (LADWP) to provide a preliminary evaluation of the proposed project. The Proposed Project would involve the implementation of a “Draft Stipulation for Entry of Final Judgment and Permanent Injunction: Order of Final Judgment and Permanent Injunction”, hereinafter, referred to as the *Proposed Stipulated Judgment*. The signatories to the Proposed Stipulated Judgment are the Mono County District Attorney, the Environmental Circuit Prosecutor, the County of Mono, the Los Angeles Department of Water and Power, and the California Department of Fish and Game (CDFG) (collectively “Parties”).

This IS includes 1) this IS introduction; 2) a project description; 3) a preliminary evaluation of environmental impacts and potential mitigation measures; 4) a list of references cited in this IS; and 5) a list of IS preparers.

1.2 Regulatory Guidance

This IS has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code 21000 et seq., and the State CEQA Guidelines, Title 14 California Code of Regulations (CCR) 15000 et sq. An IS is prepared by a lead agency to determine if a project may have a significant effect on the environment, and it guides the lead agency to prepare an EIR if potentially significant adverse impacts that cannot be readily mitigated may occur as the result of project implementation. This IS generally conforms to the methods and format proposed in Appendix G of the CEQA Guidelines with some additions to reflect potential environmental impacts not reflected in the standard CEQA environmental checklist. It relies on expert opinion based on facts, technical studies, and other substantial evidence to document its findings.

1.3 Lead Agency

Los Angeles Department of Water and Power
Environmental Services
111 North Hope Street, Room 1044
Los Angeles, CA 90012

1.4 Project Sponsor

Los Angeles Department of Water and Power
300 Mandich Street
Bishop, CA 93514-3449

2. Project Description

2.1 Project Location and Setting

The Owens River Gorge (Gorge) is located between Crowley Reservoir in southwest Mono County and Pleasant Valley Reservoir in northwest Inyo County, California. Long Valley Dam is located at the southern end of Crowley Reservoir, and the incorporated City of Bishop is approximately 8.5 miles southeast of Pleasant Valley Reservoir. The Gorge traverses the jurisdictional boundary of Inyo National Forest; however, the Gorge itself is under the ownership and jurisdictional authority of the City of Los Angeles for the purpose of constructing, operating, and maintaining hydroelectric power plants.

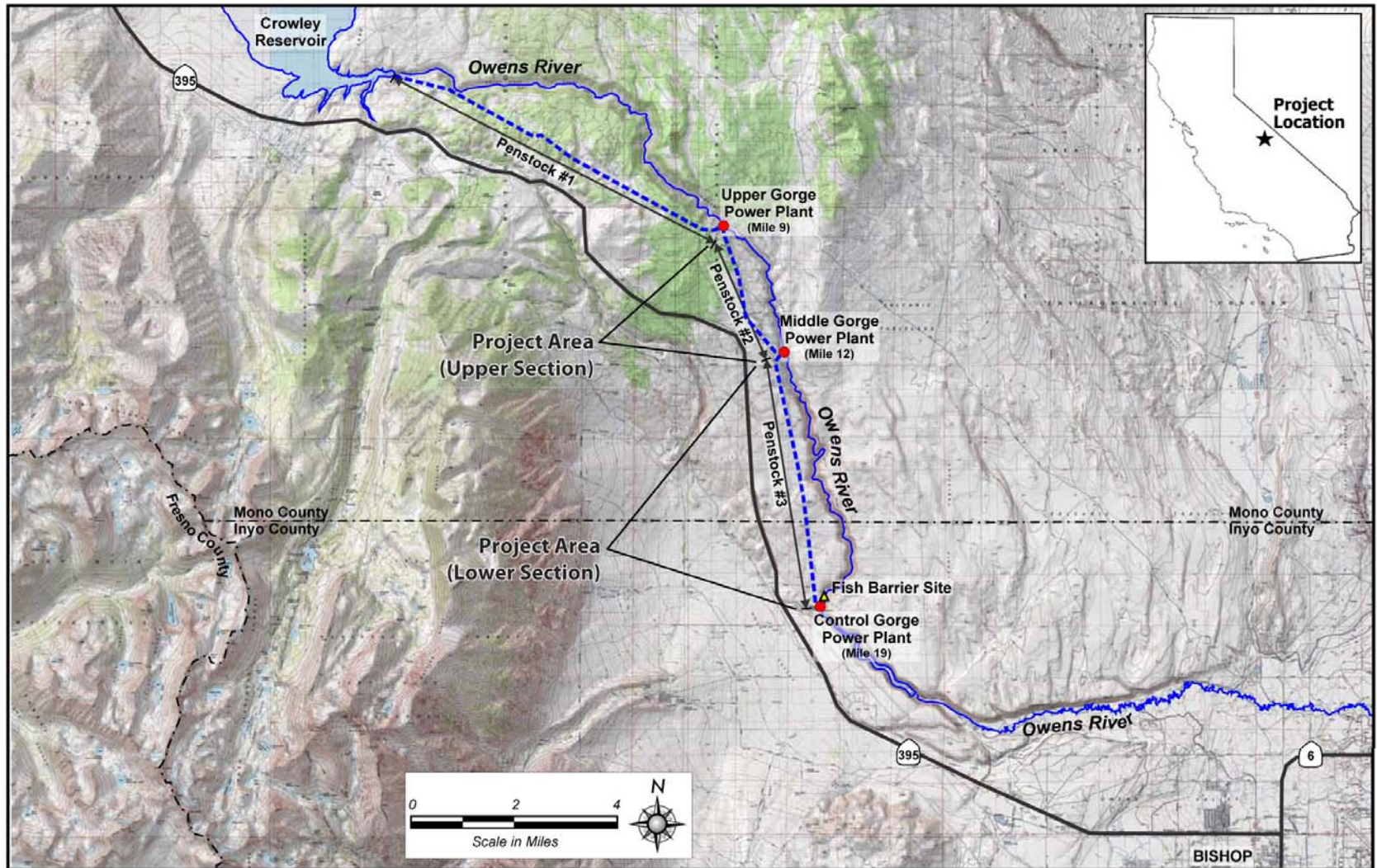
The Gorge is approximately 19 miles long, extending from northwest to southeast, and has a total elevation drop of 2,400 feet. As shown in Figure 1, there are three 37.5 megawatt (MW) hydroelectric power plants in the Gorge that are operated by LADWP. The power plants are known as the Upper Gorge Power Plant (UGPP), Middle Gorge Power Plant (MGPP), and Control Gorge Power Plant (CGPP). They are located, from north to south, at Gorge miles 9, 12, and 19; there is an elevation drop of 800 feet between each of them. Other structures in the Gorge include roads, related hydroelectric generation buildings and transmission towers, limited residential housing near CGPP for use by LADWP personnel, public restrooms, and a concrete fish barrier dam located upstream of CGPP. Recreation in the Gorge includes fishing, rock climbing, birding, and other day uses.

The Proposed Project area includes an approximate 10 mile segment (or reach) of the Gorge that is located between UGPP and Pleasant Valley Reservoir (Figure 1). The floor of the Gorge in this reach is typically between 50 and 125 feet wide. The walls are cliffs or talus rock and sandy soil extending several hundred feet above the river. Foot access is extremely limited by the steep terrain. The Gorge's channel extends from wall to wall in a few locations, but characteristically covers about half of the Gorge's bottom width. Vegetation in the bottom of the Gorge includes riparian species such as red willow (*Salix laevigata*), sandbar willow (*Salix exigua*), and Fremont cottonwood (*Populus fremontii*). Brown trout (*Salmo trutta*) and Sacramento sucker (*Catostomus fumeiventris*) are the primary fish species in the Proposed Project reach. Other than the facilities noted in the above paragraph, there is no development within or immediately adjacent to the Proposed Project reach.

2.2 Project Background

Water flowing through the three power plants comes from Crowley Reservoir through a series of 10-foot diameter concrete-lined tunnels and steel penstocks. Historically, 16 cubic feet per second (cfs) stream inflow into the UGPP tailbay was diverted into these tunnels and penstocks, leading to the MGPP and CGPP turbines. This diversion dewatered the Gorge between the UGPP and the CGPP.

On March 5, 1991, the CGPP penstock ruptured, setting off a series of events and agreements between the Los Angeles Department of Water and Power, the County of Mono, and CDFG, and ultimately leading to the reintroduction of water into the Proposed Project reach. CDFG seeks permanent rewatering of the Proposed Project reach to comply with Fish and Game Code Section 5937, which requires dam owners and operators to allow sufficient water to pass at all times through a dam "to keep in good condition any fish that may be planted or exist below the dam." The CDFG contacted the Mono County District Attorney, who subsequently filed civil action No. 10088 in Mono County Superior Court against the LADWP and the State Water Resources Control Board on April 11, 1991. The lawsuit resulted in several years of cooperative studies to determine the appropriate flows to keep fish in good condition.



PREPARED BY
Aspen Environmental Group
ICF Jones & Stokes
an ICF International Company

Project Location

Owens Gorge Flow Restoration
Figure 1

December 2005

Initial Study

In response to the lawsuit, the LADWP agreed to negotiate an *Interim Flow Agreement* with Mono County. In anticipation of the Interim Flow Agreement, in June 1991 LADWP began releasing 16 cfs of water from the UGPP tailbay into the project reach as the first step toward rewatering. A final Interim Flow Agreement was signed by the LADWP's Board of Water and Power Commissioners on June 7, 1994.

The Interim Flow Agreement provided for gradually increasing the instream flow of the Proposed Project reach during a rehabilitation period. Also under the Interim Flow Agreement, implementation of the established target flows were subject to adjustment, both in size and timing, on the basis of periodic technical and policy reviews. The purpose of these interim flows was to evaluate a series of flows to determine the effects of these flows and obtain an understanding of what final flows would be appropriate for keeping fish in good condition, pursuant to Fish and Game Code Section 5937.

To resolve the litigation, the Mono County District Attorney, LADWP, and CDFG developed a *Draft Stipulation for Entry of Final Judgment and Permanent Injunction: Order of Final Judgment and Permanent Injunction*, hereinafter referred to as the *Proposed Stipulated Judgment*, which includes the flow regimes that comprise the Proposed Project

This IS evaluates the potential environmental impacts of the proposed permanent flow release schedule for the Gorge relative to the existing conditions. The proposed permanent flow release schedule is outlined in the Proposed Stipulated Judgment along with other stipulations regarding general flow provisions, compliance with California Fish and Game Code Section 5937, completion of scientific studies, removal of a fish barrier upstream of the Control Gorge Power Plant, conservation management, protection of tui chub (*Siphateles bicolor snyderi*), and access. The proposed permanent flow release schedule, and other directly related physical requirements of the above-referenced Proposed Stipulated Judgment that are within the Gorge, are outlined below in Section 2.4.

2.3 Project Objective

The objective of the Proposed Project is to resolve the pending litigation by implementing the permanent flow release schedule as described in the Proposed Stipulated Judgment and thereby ensure compliance with Fish and Game Code Section 5937 to the satisfaction of CDFG. The Proposed Stipulated Judgment has the objective of restoring, improving, and maintaining the existing natural aquatic and riparian habitats within the Gorge between the UGPP and Pleasant Valley Reservoir through a flow management strategy proposed by Mono County's consultant and agreed upon by CDFG. The Parties believe the flow management strategy does not unreasonably interfere with or disrupt LADWP's operation of Long Valley Dam or the UGPP, MGPP, and CGPPs. LADWP requires flexibility in its operation of these facilities to meet annual and seasonal water supply demands and power generation needs. The proposed flows mandated by the Proposed Stipulated Judgment and described in the following project description are the only flows that would meet the terms of the pending Proposed Stipulated Judgment without posing significant risks to the LADWP power-generating capabilities in the Owens Gorge. By joining the stipulation, CDFG would determine that LADWP is in compliance with the terms of Fish and Game Code section 5937, and the Mono County District Attorney's Office would agree to resolve the pending litigation if LADWP implements the Proposed Project as described in the Proposed Stipulated Judgment.

2.4 Proposed Project

The water used to implement the Proposed Project would be regulated according to a schedule of base flows and seasonal pulse flows (including riparian recruitment and channel maintenance flows) released from the Owens Gorge hydroelectric penstock at the UGPP. Implementation of the

Proposed Project would be achieved through the use of existing water conveyance structures and facilities within the Gorge. Reinforcement of some existing structures within the Gorge would be necessary to accommodate peak pulse flows, as described below *Reinforcement of Existing Structures and Facilities* below. Additionally, the Proposed Project would include installation of a pool and weir fish ladder to bring an existing fish barrier into compliance with Fish and Game Code section 5901.

Proposed base flows within the Gorge would range between 35 and 85 cfs, depending upon season and year. The average base flow would be 48 cfs. Flows, including the riparian recruitment and channel maintenance flows, would reach up to 400 cfs in the section between UGPP and MGPP, and a maximum of 650 to 680 cfs in the section between MGPP and CGPP, and gradually diminish thereafter. Limiting factors to maximum flows in the two separate sections are based on documented settlement of the transmission tower base during a test flow of 420 cfs, and system limitations (i.e., Crowley Lake water surface elevation and conditions of the outlet tower, shafthouse valve and slide gate, and tunnels and penstocks), which will allow for maximum release flows of 650 cfs under normal conditions and up to 680 cfs under optimum conditions, between MGPP and CGPP. . The proposed flows are the flows negotiated with CDFG to attain fish in good condition and comply with Fish and Game Code Section 5937, without posing significant risks to the LADWP power-generating facilities in the Owens Gorge. The following sections detail the various elements of the Proposed Project.

Base Flows

The base flow schedule given in Table 1 and illustrated in Figure 2 identifies minimum monthly release rates that would be maintained below the UGPP. Proposed base flows within the Gorge would range between 35 and 85 cfs, depending upon season and year. The base flows would be distributed in three different year types: *below normal*, *normal*, and *above normal*. The below-normal schedule would be followed in six years of each consecutive ten year period. Normal and above-normal schedules would be implemented in three years and one year, respectively, of each consecutive ten year period. Changes in the base flow rate would occur on the first day of each month except July, when flows would be changed on the first and the fifteenth day of the month. Total annual base flow would be approximately 31,000 AF, 38,600 AF, and 46,600 AF for below-normal, normal, and above-normal years, respectively. LADWP would retain the option to select the year type to be applied in any given year within the given constraints. Figure 3 illustrates a simulated distribution of flows by year.

Table 1. Project Monthly Base Flow Schedule

Year Type	Jan	Feb	Mar	April	May	June	July(1)	July(2)	Aug	Sept	Oct	Nov	Dec
	Base Flow, in cfs												
Below Normal Flow	40	40	45	50	50	55	55	45	40	35	40	35	35
Normal Flow	40	55	55	65	60	70	70	60	50	45	45	45	45
Above Normal Flow	55	65	65	75	75	85	85	70	55	55	55	55	55

July (1) = First half of July. July (2) = Second half of July.

Pulse Flows

In addition to the base flows, pulse flows would be discharged that are intended to mimic natural runoff patterns. These flows are intended to clean fine sediments from pools and gravel bottoms, deposit fine sediments on floodplain surfaces, and create bare wet mineral habitats for seedling establishment of native woody plants. The Proposed Project assumes that sufficient sediment is available from in-canyon sources (sediment inputs from release flows from Crowley Reservoir are minor) to allow these processes to materialize and be sustained.

In the section from MGPP to CGPP, under model conditions, the maximum pulse flow release rate would equal the system capacity not to exceed the amounts listed in tables 2 and 3. The maximum pulse flow release rate in the section between UGPP and MGPP would be limited to a maximum of 400 cfs due to potential damage to an existing transmission tower.

Pulse flows would be one of two kinds: *channel maintenance flows* and *riparian recruitment flows*. They would occur once per year in 18 years of each 20-year period, at a time determined by the operational needs of the LADWP and within the limits described below. LADWP would limit public access during high flow events consistent with the need for public safety.

Channel maintenance pulse flows would occur in 13 years of each 20-year period. The purpose of channel maintenance pulse flows would be to clean fine sediments from pools and gravel bottoms and redistribute them to floodplain surfaces. Channel maintenance pulse flows would be approximately seven days in duration and would occur between March 1 and September 30, at a time of the LADWP's choosing. Channel maintenance pulse flows would be increased, by schedule, up to a maximum 400 cfs in the section between UGPP and MGPP, and a maximum of 650 cfs to 680 cfs between MGPP to CGPP; be maintained at the maximum rate for 12 hours; and then be ramped down to the base flow level, as shown in Table 2 and Figure 4.

Figure 2 Owens Gorge Project Base Flows

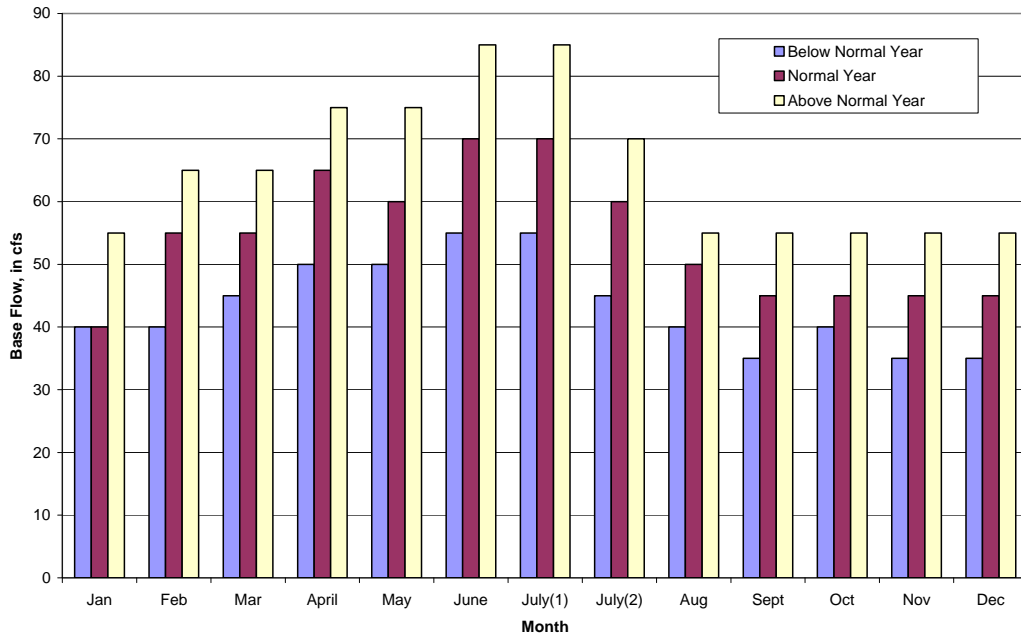


Figure 3 Simulated Distribution of Base Flows for a Ten-Year Period

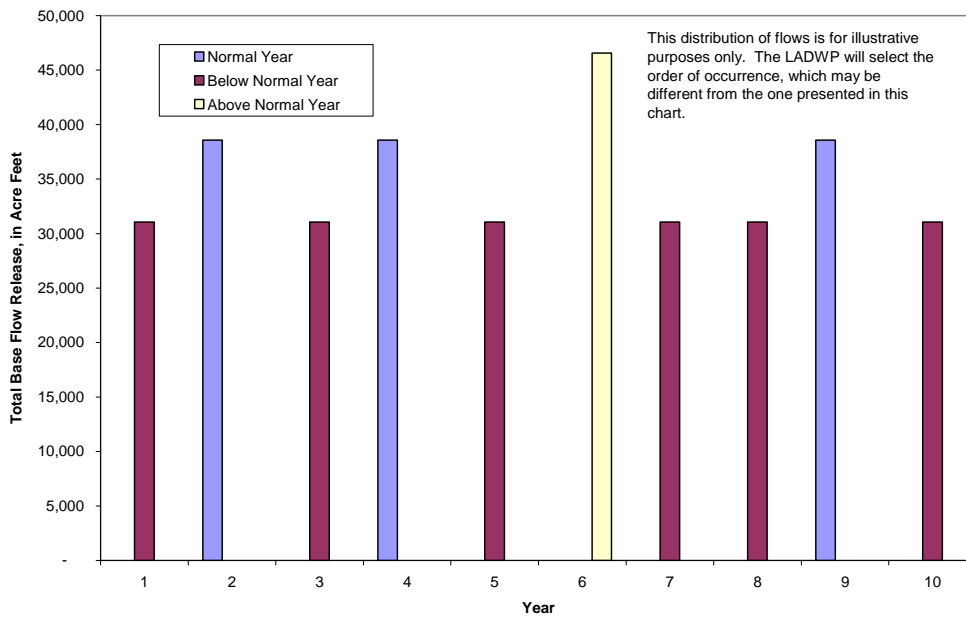
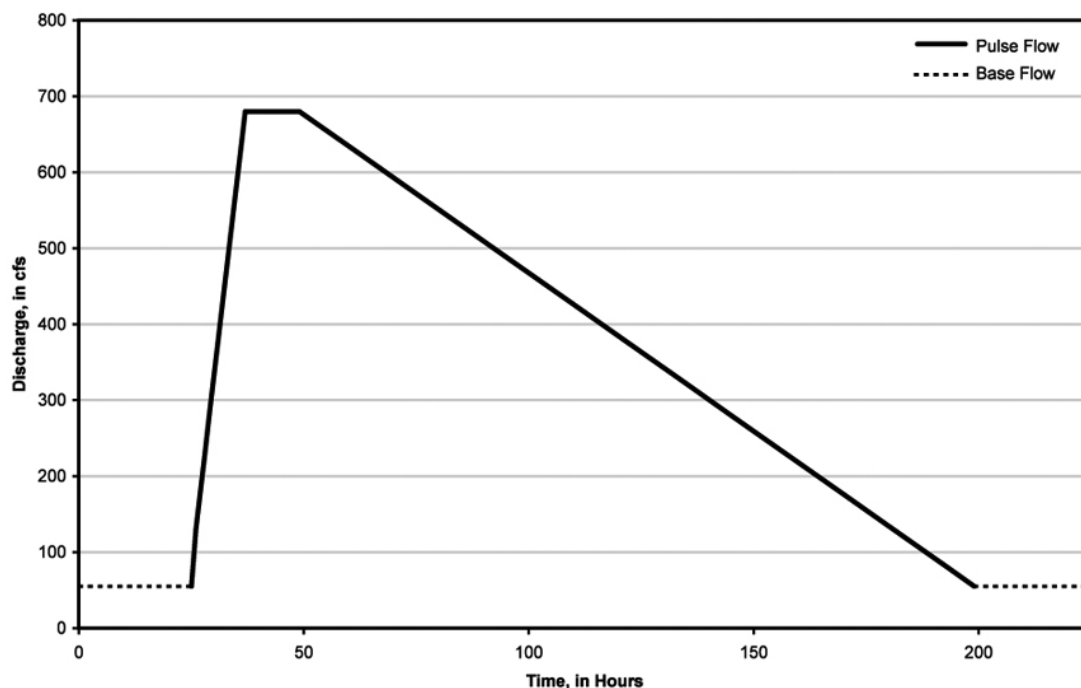


Figure 4 Channel Maintenance Pulse Flow Hydrograph



Note: Maximum potential flow of 680 cfs is shown. Normal range is 650-680 cfs.

Table 2. Channel Maintenance Pulse Flow Hydrograph

Time in Hours	Pulse Flow Discharge, in cfs
0	applicable base flow
1	130
2	180
9	530
10	580
12	680*
24	680*
36	630
48	580
156	130
168	80
174	applicable base flow

* Maximum potential flow of 680 cfs. Normal range is 650-680 cfs.

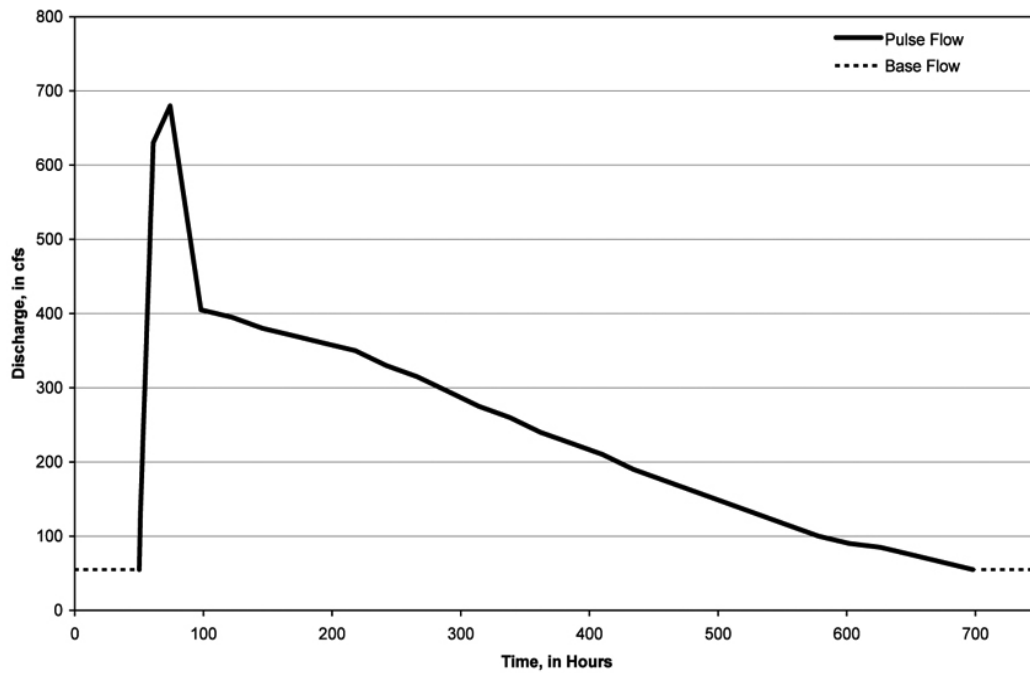
In five years of each 20-year period, a riparian recruitment pulse flow would be released. Riparian recruitment flows are intended to promote riparian seedling establishment on floodplains and at higher elevations above the channel margins and to sustain root growth of these seedlings until they reach the water table associated with the base flows. The riparian recruitment pulse flow would have the same maximum flow rate as the channel maintenance pulse flow of 400 cfs in the section between UGPP and MGPP, and up to 680 cfs in the section between MGPP and CGPP, but would last for 27 rather than seven days, and would occur during late May or the first half of June. A

riparian recruitment flow would not be released in the same year as a channel maintenance flow. Riparian recruitment flows would not occur in consecutive years, and would not occur more than five years apart, except in unusual circumstances. Riparian recruitment pulse flow hydrographs are presented in Table 3 and Figure 5.

Table 3. Riparian Recruitment Pulse Flow Hydrograph

Time in Hours	Pulse Flow Discharge, in cfs
0	applicable base flow
1	130
2	180
3	230
4	280
5	330
6	380
7	430
8	480
9	530
10	580
11	630
24	680*
48	405
72	395
96	380
120	370
144	360
168	350
192	330
216	315
240	295
264	275
288	260
312	240
336	225
360	210
384	190
408	175
432	160
456	145
480	130
504	115
528	100
552	90
576	85
600	75
648	applicable base flow
*Maximum potential flow of 680 cfs. Normal range is 650-680 cfs.	

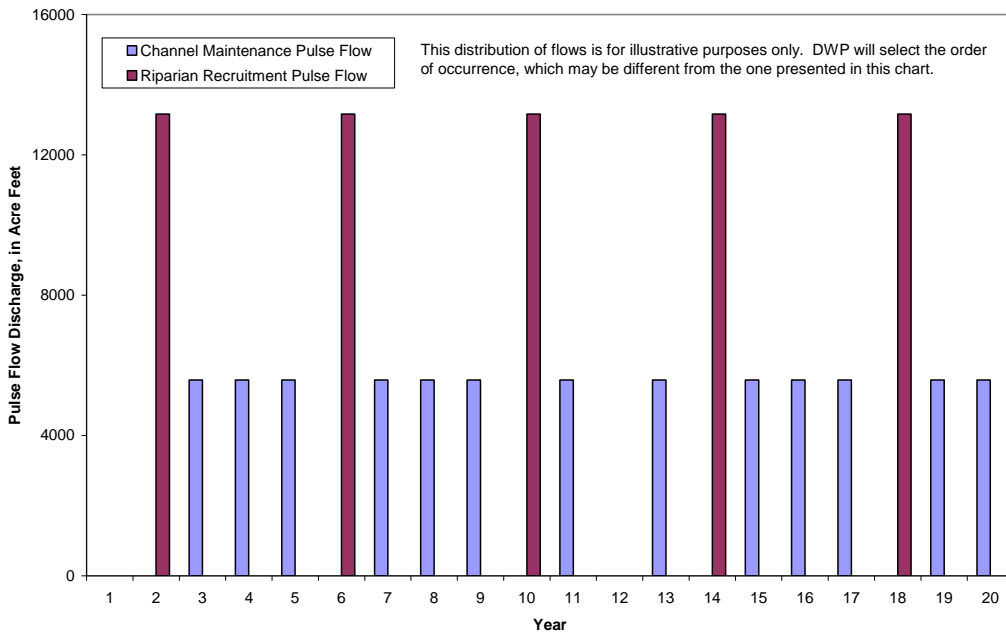
Figure 5 Riparian Recruitment Pulse Flow Hydrograph



Note: Maximum potential flow of 680 cfs is shown. Normal range is 650-680 cfs.

Channel maintenance and riparian recruitment pulse flows would release approximately 5,600 and 13,000 AF of water, respectively. No pulse flows would be released in two of every 20 years as described under the *Crowley Reservoir* section, below. Figure 6 illustrates a typical distribution of pulse flows within a 20-year period. The actual release order would be determined by the LADWP within the constraints described above.

Figure 6 Simulated Distribution of Pulse Flows for a Twenty Year Period



Crowley Reservoir

The Proposed Project’s flow releases would be coordinated with, and continue to be governed by, water delivery and flood control needs such that year-to-year or seasonal water storage in Crowley Reservoir would not be adversely affected. The procedure for allotting base flow releases within 10-year periods and pulse flow releases within 20-year periods would be flexible to allow LADWP to coordinate instream releases with runoff conditions in order to maintain normal water delivery operations. For the most part, inflow to Crowley Reservoir exceeds proposed base and pulse flows on a monthly basis, with the possible exception of riparian recruitment flow years. However, in exceptionally dry years, inflow may be less than potential pulse flow volume initially selected by LADWP. In such an event, release of pulse flows could cause the lake level to drop, if the pulse flow rate exceeds the City of Los Angeles’ water demand. To prevent the unintended drawdown of Crowley Reservoir, no pulse flow would be scheduled if the pulse flow would result in a drawdown of Crowley Reservoir during the fishing season that would diminish fishing quality and opportunity. Thus, the Proposed Project would not cause or contribute to significant lake level fluctuations.

Reinforcement of Existing Structures and Facilities

In June 2003, a test flow release of 420 cfs (reduced to 400 cfs due to movement of the existing transmission tower base) in the section between UGPP and MGPP, and 650 cfs in the section between MGPP and CGPP was conducted in the Proposed Project reach. Based upon this test release, it was determined that some existing structures within the Gorge require reinforcement prior to Proposed Project implementation to prevent damage that may occur under peak pulse flow conditions. These actions would consist of:

- Protect the Tailbay Release Structure approximately 200 feet downstream of the UGPP, by removing rock outcrop from the stream channel and installing a deflector wall to divert water around the east side of the structure.
- Remove natural rock formation from the stream channel upstream of the stream-side transmission tower.
- Realign, stabilize, and reinforce base of transmission tower, and/or widen the stream channel for approximately 450 lineal feet above and below the tower location.

- Widen the stream channel and stabilize the east and west banks at the waterfall above MGPP.
- Repair approximately 100 lineal feet of stream bank revetment along the west bank directly upstream of the MGPP.
- Remove and replace the existing double bypass pipes and trash rack at the MGPP Tailbay Bypass structure.
- Raise the elevation and reinforce the west bank along access road approximately 2,350 feet downstream of MGPP.
- Break-up and remove the rock outcrop from east and west bank and boulders in the channel to alleviate the constriction in the stream channel approximately 1,300 feet upstream of the MGPP.

In addition to the above, approximately 200 feet of native-surface road on the west bank of the Gorge, opposite the above-referenced transmission tower footing, may be relocated onto existing fill farther away from the river's bank. This road relocation would eliminate the need for stream bank reinforcement and allow for establishment of riparian vegetation between the road and river, which, over time, would have a beneficial effect on the environment and protect the road.

Reinforcement of structures in the stream zone would include placement of riprap or other revetment structures made of rock and concrete. Construction would include measures to dewater sites to facilitate construction and control sediment, such as diking with concrete blocks, 'K' rails, or sandbags; excavation of footings; and installation of boulders and concrete to reinforce the channel bank. Channel banks in construction areas largely lack established riparian vegetation. These areas have been previously modified by earth moving equipment, and are either covered by shotcrete or capped by asphalt. With respect to existing and potential riparian habitat, the finished conditions would not be substantially different from existing conditions.

Fishway

To restore fish access upstream of the Pleasant Valley Reservoir and the Owens River in the Gorge, and to comply with Fish and Game Code Section 5901, a pool and weir fish ladder would be installed and maintained at an existing concrete fish barrier dam located upstream of the Control Gorge Power Plant. The fish ladder would be constructed of reinforced concrete and situated on the west bank of the river at the toe of the existing fish barrier. Retention of the fish barrier dam would maintain the existing stream bed gradient control and prevent potential down-cutting of the stream bottom that might otherwise be triggered by removal of the structure. The fishway would be adequate to pass adult brown trout during base flow conditions.

2.5 Environmental Protection Measures

Short-term, temporary impacts would occur during the Proposed Project's reinforcement and pool and weir fish ladder installment activities. LADWP has committed to several resource protection measures as part of the Proposed Project's design and implementation, which would be implemented during construction to minimize associated short-term, adverse impacts. These measures include:

Erosion Control. LADWP would develop, and ensure construction contractor adherence to, measures to dewater construction sites to facilitate sediment control, such as diking with concrete blocks, 'K' rails, or sandbags, and to minimize the length of time that excavated soils are exposed (stockpiled).

Air Quality. LADWP would ensure that the construction contractor: (1) complies with all requirements specified by the Great Basin Unified Air Pollution Control District (APCD) for any portable stationary equipment needed for construction (e.g., power generators), including the acquisition of applicable permits or appropriate registration with the California Air Resource Board (CARB); (2) complies with all Great Basin APCD rules governing fugitive

dust control (APCD Rule 401) and nuisances (Rule 402); and, (3) mobilizes a water sprinkler truck to control dust at work sites and along unpaved roads used for site access, as required by site conditions.

Streamflow, Geologic Hazards and Public Safety. The LADWP would post warning and avoidance notices prior to and during pulse flows to alert the public to the presence of pulse flows that may make stream crossing, stream wading, and fishing unsafe. In particular, the possible triggering of rock and rubble slides in a side slope chute located downstream of the MGPP would be posted.

Fire Safety and Control. LADWP would ensure that during reinforcement activities, the construction contractor verifies that all crews have fire-suppression equipment on site (such as fire extinguishers) to respond to the accidental ignition of a fire.

Noise. The LADWP would ensure that the construction contractor complies with the following Best Management Practices (BMPs) to ensure that noise-sensitive recreational users within the Gorge would not be exposed to excessive construction-related noise: (1) proper maintenance and tuning of all construction equipment engines to minimize noise emissions; and (2) proper maintenance and functioning of the mufflers on all internal combustion and vehicle engines to reduce noise to the maximum feasible extent.

Transportation and Traffic. During construction, LADWP would implement the guidelines and measures of the *Work Area Protection and Traffic Control Manual* developed by the *California Joint Utility Traffic Control Committee*, as applicable, to minimize possible offsite transportation and traffic impacts.

Water Quality. LADWP would ensure that the construction contractor complies with all federal and state permit approvals and requirements for water quality control and protection, including stipulations outlined in the Proposed Project's *Water Quality Certification and Storm Water Pollution Prevention Plan*.

2.6 Public Agencies Whose Approval May be Required

The following regulatory approvals may be required prior to implementation of the Proposed Project:

- **CDFG, Streambed/Lake Alteration Agreement per Fish and Game Code Sections 1600-1616.** Sections 1600 through 1616 of the Fish and Game Code require that a written notification be submitted to CDFG for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." Proposed reinforcement and fishway installment activities would temporarily affect the bed, channel, and bank of the Gorge. If CDFG determines that these activities may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement from CDFG will be prepared. The CDFG has been kept informed about the Proposed Project by LADWP throughout its development. LADWP will continue its communications with CDFG throughout the Proposed Project's environmental review under CEQA, to further discuss the review process needed for the CDFG's issuance of a Streambed Alteration Agreement.
- **State Water Resources Control Board License No. 10190.** In January 1974, LADWP obtained License No. 10190 from the State Water Resources Control Board (SWRCB) to divert water from the Owens River at Long Valley Dam for hydroelectric power generation, including diversions for operation of the UGPP, MGPP, and CGPP. In June 1991, the SWRCB issued Order No. WR91-04, which amended License No. 10190 to add the condition that operations of the power plants must be in full compliance with California Fish and Game Code Section 5937. An amendment to the SWRCB's License No. 10190 may be required to reflect SWRCB's approval of the Proposed Project's permanent flow release schedule. The SWRCB has been kept informed by LADWP of the Proposed Project's

development; the LADWP will maintain communications with the SWRCB throughout the Proposed Project's environmental review under CEQA to facilitate any license amendments that may be required.

- **United States Army Corps of Engineers, Section 404 Clean Water Act Permit.** A Section 404 individual or Nationwide permit may be required for the Proposed Project to address reinforcement and fishway installment activities that may discharge dredged or fill material into any *Waters of the United States*. Additional requirements may be imposed by Army Corps of Engineers for implementation of the proposed flow regime and the potential loss of wetland habitat. LADWP will coordinate with the United States Army Corps of Engineers (USACE) as part of the Proposed Project's CEQA environmental review process to establish permit requirements, if any.
- **Regional Water Quality Control Board, Section 401 Water Quality Certification.** Section 401 of the Clean Water Act grants each state the right to ensure that the state's interests are protected on any federally permitted activity occurring in or adjacent to *Waters of the State*. If a Proposed Project requires a USACE Section 404 permit (see above) and has the potential to impact Waters of the State, the applicable Regional Water Quality Control Board (RWQCB) (in this case Lahontan RWQCB) would regulate the project and associated activities through a Water Quality Certification (WQC) (Section 401), which verifies that the project activities comply with state water quality standards. The LADWP will coordinate with the Lahontan RWQCB as part of the Proposed Project's environmental review process under CEQA to establish if a Section 401 Water Quality Certification is required
- **State Water Resources Control Board, Section 402 National Pollutant Discharge Elimination System (NPDES) Construction Activity General Permit.** The SWRCB requires a *General Construction Activity Storm Water Permit* for storm water discharges associated with any construction activity, including clearing, grading, excavation reconstruction, and dredge and fill activities, that results in the disturbance of one acre or more of total land area. It is currently anticipated that reinforcement activities would involve more than one acre of disturbance within the Gorge's river bed and banks. Therefore, a *General Construction Activity Storm Water Permit* from the SWRCB would be required. Pursuant to NPDES requirements, a *Storm Water Pollution Prevention Plan* (SWPPP) must be prepared and submitted to the SWRCB for review and approval prior to issuance of the Proposed Project's General Construction Activity Storm Water Permit. The SWPPP will outline proposed BMPs to minimize water contamination from storm water and non-storm water during construction.
- **United States Fish and Wildlife Service, Section 7(a)(2) Federal Endangered Species Act Consultation.** Under provisions of Section 7(a)(2) of the Federal Endangered Species Act (ESA), federal agencies must ensure that any action authorized, funded, or implemented by the agency does not jeopardize the continued existence of any species listed or proposed for listing or result in the destruction or adverse modification of habitat of such species. Section 7(b) of the ESA requires the U. S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) to issue a written statement providing an opinion of how the agency action may or may not affect listed species or critical habitat. A Biological Assessment (BA) is required under Section 7(c) of the ESA if listed species or critical habitat may be present in an area affected by any "major construction activity." LADWP will maintain communications with the USFWS through the Proposed Project's CEQA environmental review process to further address the possible need for a Section 7(a)(2) Consultation.
- **CDFG, California Endangered Species Act Section 2081 Take Permit.** The California Endangered Species Act of 1984 (Fish and Game Code Section 2050 et seq.) provides for the protection of rare, threatened, and endangered plants and animals, as recognized by the California Department of Fish and Game (CDFG), and prohibits the unauthorized taking of such species. State agencies are required to consult with the CDFG on actions that may affect listed or candidate species. The California Endangered Species Act greatly expanded upon the protection afforded to rare, threatened, and endangered plants under the earlier California Native Plant Protection Act of 1977. If a Proposed Project may result in the take of a state listed endangered, threatened, or candidate species incidental to an otherwise lawful action, the CDFG may authorize such take through a permit (2081 permit) provided certain conditions are met. To date, the CDFG has been kept informed of, and been involved in, development of the Proposed Project's flow release schedule and associated reinforcement requirements. The LADWP will maintain communications with the CDFG throughout the Proposed Project's environmental review under CEQA to facilitate any permitting that may be required.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by that project, involving at least one impact that is a “Potentially Significant Impact”, as indicated by the checklist sections on the following pages.

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Aesthetics | <input checked="" type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards and Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input checked="" type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input checked="" type="checkbox"/> Utilities/Service Systems | <input checked="" type="checkbox"/> Energy Supply | <input checked="" type="checkbox"/> Public Health |
| <input checked="" type="checkbox"/> Mandatory Findings of Significance | | |

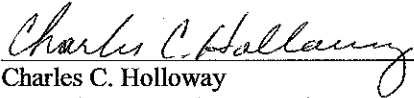
Determination

On the basis of this initial evaluation:

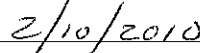
- I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.
- I find that the Proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An EIR is required, but it must analyze only the effects that remain to be addressed.
- I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature

Date



Charles C. Holloway
Supervisor of Environmental Assessment
Los Angeles Department of Water and Power



2/10/2010

3. Evaluation of Environmental Impacts and Mitigation Measures

The following discussion addresses impacts to various environmental resources, per the Environmental Checklist Form contained in Appendix G of the State CEQA Guidelines as modified by LADWP to accommodate environmental issues associated with the Owens River Gorge and the Proposed Project.

3.1 Aesthetics

AESTHETICS - Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Response to Questions:

a. *Would the project have a substantial adverse effect on a scenic vista?*

NO IMPACT. The Proposed Project area includes an approximate 10-mile segment of the Gorge that is located between the Upper Gorge Power Plant and Pleasant Valley Reservoir. The floor of the Gorge in this reach is typically between 50 and 120 feet wide. The walls are cliffs or talus rock and soil extending several hundred feet above the river. Foot access is extremely limited by the steep terrain. The Owens River extends from wall to wall in a few locations, but characteristically covers about half of the Gorge's bottom width. Due to the topography of the Gorge, scenic vistas in the area are generally limited to the upland areas that afford a panoramic view of the Gorge.

The Proposed Project would change low flows and reintroduce pulse flows in the Owens River and involve reinforcing some existing structures to facilitate the new flow regime. However, none of these actions would obscure or obstruct existing scenic vistas from upland pedestrian or vehicular locations or from in-Gorge locations.

b. *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?*

POTENTIALLY SIGNIFICANT IMPACT. The Proposed Project is located in an area containing natural open space and natural scenic resources, regularly utilized by recreational visitors. Natural features are located in, and proximate to, the Proposed Project area, including trees and rock outcroppings. The Proposed Project would include provision of flows through the Gorge for the purposes of keeping fish in good condition to satisfy Fish and Game Code Section 5937. The resulting pulse flows would result in an alteration to the existing habitats maintained by flows currently occurring in the Gorge. If riparian vegetation is destabilized, some individuals may consider this alteration as a significant impact to the visual quality of the area. As discussed in Section 3.5 (a), the Proposed Project area contains two abandoned powerhouses; however, they have been evaluated as not eligible for the California Register of Historical Resources and do not qualify as historical resources as defined in §15064.5 of the CEQA Guidelines. No state scenic highways occur in close enough proximity to be affected by the Proposed Project (Caltrans 2006). Consequently, the Proposed Project would not affect views from a designated scenic highway.

- c. **Would the project substantially degrade the existing visual character or quality of the site and its surroundings?**

POTENTIALLY SIGNIFICANT IMPACT. The Proposed Project would reintroduce flows through the Gorge for the purposes of keeping fish in good condition to satisfy Fish and Game Code Section 5937. The resulting pulse flows will result in an alteration to the existing habitats maintained by flows currently occurring in the Gorge. Due to the subjective nature of visual quality, to the degree that riparian system vegetation is destabilized, individuals may consider this alteration as a significant impact to the visual quality of the area.

- d. **Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

NO IMPACT. The Proposed Project would not introduce any new source of light or glare.

3.2 Agricultural Resources

AGRICULTURAL RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agricultural farmland. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Involve other changes in the existing environment, which, due to their location or nature, could individually or cumulatively result in conversion of farmland to non-agricultural use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Response to Questions

- a. **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as Shown on the Maps Prepared Pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to Non-agricultural use?**

NO IMPACT. The Proposed Project area is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency (California Department of Conservation 2006). Additionally, no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is located in close proximity to the Proposed Project area. No agricultural lands would be converted to a non-agricultural use.

- b. **Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

NO IMPACT. The Proposed Project area contains a General Plan land use designation of Open Space (Mono County) and Agriculture (Inyo County), and is zoned Open Space (Mono County) and Open Space 40 Acre (Inyo County) (Mono County 2006). There is no history of agricultural activity within the Proposed Project area other than cattle and sheep grazing on lands adjacent to the Gorge (see Section 3.9 [b]), and there are no Williamson Act contracts in place that could be affected by the Proposed Project. No conflicts with existing agriculturally zoned property or Williamson Act contracts would occur.

- c. **Would the project involve other changes in the existing environment, which, due to their location or nature, could individually or cumulatively result in conversion of farmland to non-agricultural use?**

POTENTIALLY SIGNIFICANT IMPACT. The Proposed Project area has no history of agricultural uses other than cattle and sheep grazing on lands adjacent to the Gorge (see Section 3.9 [b]), nor has any portion of it been designated Farmland by the State Resources Agency (California Department of Conservation 2006). The site is not proximate to any active agricultural property. Implementation of the Proposed Project could, however, result in decreases in water available for agricultural irrigation diversions downstream of Pleasant Valley Reservoir in order to achieve channel maintenance flows, should it be necessary to conduct them during low water supply years. If these decreases were substantial and frequent, agricultural uses of these could diminish. The potential magnitude of this effects needs to be evaluated in the context of the recommended EIR.

3.3 Air Quality

AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Response to Questions

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

NO IMPACT. Air quality impacts would occur as a result of short-term reinforcement activities. Long-term operation of the Proposed Project would likely require periodic monitoring of release flows; however, this monitoring would be conducted by existing LADWP personnel and would be expected to occur in conjunction with existing monitoring and inspection of the Gorge and its facilities. Because there would be no permanent change in air pollutant emissions associated with the Proposed Project, the Proposed Project would not conflict with or obstruct implementation of applicable air quality plans either during construction or operation.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

LESS THAN SIGNIFICANT IMPACT. The Proposed Project would not involve the construction of any new facilities within the Gorge. Reinforcement of existing structures and facilities and installation of the proposed pool and weir fish ladder would, however, cause short-term emissions of equipment exhaust and fugitive dust. Short-term impacts would include the temporary emissions of dust; equipment exhaust; fugitive particulate matter from concrete and materials handling; worker vehicles commuting to and from the job site; and trucks delivering material and equipment to the work areas. Based on information about the quantity of material being moved and the overall duration of construction activities, construction activity assumptions (e.g., equipment type, number of equipment pieces, number of days in operation, etc.) were developed for the Proposed Project in its entirety.

Equipment to be used for the reinforcement of existing structures and facilities and the installation of the pool and weir fish ladder include a backhoe, an excavator, a grader, a front-end loader, a small crane, a

water truck, dump trucks, concrete transit mixer trucks, and portable generators. Approximately one month of work would be needed for reinforcement of the existing structures and facilities, and approximately two weeks of activity would be needed for fishway installation. Approximately 100 cubic yards of riprap and 50 cubic yards of concrete slurry material would be delivered and placed in the Gorge, and less than 500 cubic yards would be placed for relocation of the road. Any excavation and backfill would be balanced across project sites to eliminate the need to export or import fill material. On any typical day of activity, no more than eight pieces of construction equipment would be operating over a combined area of two acres. The peak construction workforce would not be expected to exceed 15 people, who would need to commute to the Proposed Project area daily. Portable stationary equipment (e.g., power generators) would be subject to permitting by the Great Basin Unified APCD or registration with CARB, and all construction activities would be subject to APCD rules governing fugitive dust control (APCD Rule 401) and nuisances (Rule 402). LADWP would use a water sprinkler truck to control dust at the work sites and along the short (0.3 mile) segments of unpaved roads used for site access. The short-term nature and limited scale of the construction work would ensure that exhaust emissions of NO_x, ROG, CO, SO_x, and PM₁₀ would be unlikely to cause a violation of any air quality standard or contribute substantially to an existing violation.

No air quality impacts would be anticipated to occur with the permanent reintroduction of flows. Aside from the construction for reinforcing existing structures and facilities and installing the pool and weir fish ladder, emissions caused by motor vehicles, including LADWP workers traveling through the area for ongoing operation, maintenance, and inspection of the Gorge's existing facilities, would not be expected to increase, and no violation of any air quality standards would occur. The Proposed Project would not introduce new sensitive receptors to substantial concentrations of any air pollutants because the Proposed Project would not increase employment or population in the area.

The altered flows could affect the quality of recreational resources within the Gorge, as addressed in Section 3.14. Visitors using the Proposed Project area for recreation presently cause emissions from their motor vehicles. These emissions are just one component of the background environmental setting characterized above. Although some visitors may change their plans for recreation upon discovering the altered flows, the Proposed Project is not expected to significantly increase the number of visitors attracted to the Gorge. This means that the emissions from recreational visitors' vehicles would not be changed substantially by the Proposed Project.

Because there would be no permanent change in air pollutant emissions associated with the Proposed Project, its construction-related activities and operation would not contribute to an existing or projected air quality violation.

- c. *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?***

NO IMPACT. Because there would be no permanent change in air pollutant emissions associated with the Proposed Project (see Sections 3.3 [a] and [b], above), a cumulatively considerable net increase of criteria pollutants that could exceed federal or state air quality standards and thresholds would not occur.

- d. *Would the project expose sensitive receptors to substantial pollutant concentrations?***

NO IMPACT. Receptors sensitive to air pollution include certain residents, such as the very young, the elderly, and those suffering from respiratory illnesses or disabilities. Although such receptors may visit the Proposed Project area for recreational purposes, no such receptors permanently reside in the vicinity of the Proposed Project. Because there would be no permanent change in air pollutant emissions associated with the Proposed Project, it would not expose sensitive receptors to substantial pollutant concentrations.

- e. *Would the project create objectionable odors affecting a substantial number of people?***

NO IMPACT. No populated areas other than a limited number of residential housing units used exclusively by LADWP personnel occur in the vicinity of the Proposed Project. Short-term construction activity would involve combustion of diesel fuel and emissions of dust. No substances used or activities involved with the Proposed Project would have the capability to produce offensive odors.

3.4 Biological Resources

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

Response to Questions

- a. ***Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the proposed flow regime and construction activities related to the reinforcement of existing LADWP facilities has the potential to adversely impact, either directly or indirectly through habitat modifications, sensitive species identified as endangered or threatened, candidate, sensitive, and special-status by either the CDFG, USFWS, USFS, and BLM, or in regional plans, policies, or regulations.

Plants and Terrestrial Wildlife. The proposed pulse flows would result in the direct removal of some woody riparian vegetation, temporary changes to water surface elevations and flow velocities, and temporary inundation of riparian habitat in the Owens River Gorge. These events may therefore directly impact special-status species that occupy the riparian habitats, or degrade their habitats through loss and fragmentation of riparian vegetation.

Avian surveys conducted by LADWP and observations by DFG indicate that the special-status yellow breasted chat (*Icteria virens*) and yellow warbler (*Dendroica petechia brewsteri*) breed or may breed in

these riparian habitats. Migrant willow flycatchers (*Empidonax traillii*) have also been observed in the Gorge. Potential breeding habitat for the southwestern willow flycatcher (*E. t. extimus*) exists in the project area, and known breeding populations of this species exist within four miles of the project area in Pleasant Valley. The least Bell's vireo has the potential to breed in the riparian habitat within the project area, although it has not been known to breed in the Owens valley in several decades. Peregrine Falcons, a state-endangered species has been observed in the project area.

Acoustical bat surveys conducted in the Gorge by LADWP in recent years indicate that several special-status bat species use the Gorge, including Townsend's big-eared bat (*Corynorhinus townsendii*), pallid bat (*Antrozous pallidus*), spotted bat (*Euderma maculatum*), silver-haired bat (*Lasionycteris noctivagans*), western red bat (*Lasiurus blossevillii*), western small-footed myotis (*Myotis ciliolabrum*), long-eared myotis (*M. evotis*), fringed myotis (*M. thysanodes*), long-legged myotis (*M. volans*), and Yuma myotis (*M. yumanensis*).

Special-status plant species with the potential to occur in the project area, based on the presence of suitable habitat and their occurrence in nearby locations in Owens Valley, include the Owens Valley checkerbloom (*Sidalcea covillei*) and alkali Mariposa lily (*Calochortus excavatus*). The special-status plant species with the potential to occur in the gorge would be found in meadow habitats. If the proposed pulse flows result in a decrease or loss of meadow vegetation, loss or habitat-degradation of these special-status plant species could occur.

The special-status wildlife in the project area could be subject to direct disturbance during the pulse flows, especially if they are conducted during the breeding or nesting season. Destruction of nests could occur, or disruption and abandonment of nesting could result. Removal of riparian and wetland vegetation during pulse flows, as discussed under question "b" below, could decrease patch sizes and increase the fragmentation of stands of woody riparian vegetation. This could decrease habitat quality for the riparian-obligate special-status bird species. A loss or reduction of woody riparian vegetation may also impact special-status bat species, particularly tree-roosting species or those known to forage adjacent to woody riparian vegetation. A loss of or decrease in the heterogeneity of riparian or wetland habitats may indirectly impact bat species by reducing the diversity or abundance or prey.

Structural reinforcement actions that LADWP would be required to implement prior to releasing pulse flows have the potential to impact these special-status species in the short term, both directly and through temporary habitat modification or changes in water quality. However, many potential impacts to these species could be avoided or minimized through implementation of feasible mitigation measures, such as timing construction to avoid the nesting season.

Aquatic Insects and Fish. The proposed pulse flow regime may have the potential to adversely affect habitat for special status fish species. Two special-status fish species occur in the Gorge: Owens tui chub (*Sipheteles bicolor snyderi*) and Owens sucker (*Catostomus fumeiventris*). Owens suckers occur in the project reach. Owens tui chubs are present in the Owens River upstream of the project reach, and Owens tui chub-Lahontan tui chub hybrids have been observed in the upper section of the project reach (in the Upper Gorge Power Plant tailbay from which all releases are made into the project area). Hybridization and susceptibility to brown trout predation may preclude the viability of Owens tui chub within the project area.

The proposed pulse flows could result in direct and indirect effects on these special-status fish species if they are still present, depending on the frequency, magnitude, and timing of these flows relative to life history and habitat requirements of these species. Adverse effects on habitat quantity and quality may occur if flows frequently exceed levels sufficient to destabilize existing channel, floodplain, and wetland habitats. Potential impact mechanisms include excessive erosion, scour, and sedimentation of existing habitats, and associated losses of habitat diversity, cover, and velocity refuges.

Because of the potential for adverse effects on the habitats of special-status bird, bat, plant, and fish species known or potentially occurring in the Proposed Project area, evaluation of potential impacts in an Environmental Impact Report is recommended.

b. *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Proposed Project has the potential to impact riparian habitats by changing availability of subsurface moisture in the growing season, changing landforms that provide substrate (growing medium) for riparian species, directly damaging vegetation, and recruiting new stands of riparian vegetation by flood-borne seed. As stated in Section 2.6 *Public Agencies Whose Approval May be Required*, the Proposed Project would be required to demonstrate consistency with the agency requirements.

Hydrologic perturbations occur regularly in many natural riverine systems, and the Proposed Project would result in a more natural riverine system in the Gorge by introducing pulse flow releases. Periodic scour and deposition of sediment from higher flow releases may result in short term losses of riparian vegetation. It can also result in the development of new nursery sites for riparian vegetation. Riparian species such as cottonwoods and willows, which dominate riparian habitats in California and the Owens River Gorge, require disturbance to provide suitable sites for seedling germination (Mahoney and Rood 1998).

The recruitment, establishment, and survival of riparian plant communities are closely tied to hydrologic conditions and associated levels of natural disturbance (Ward and Stanford 1995). Scour from winter storms or snow melt is a form of disturbance required to clear vegetation and debris, and it establishes nursery sites for riparian trees such as cottonwoods and willows. Construction of Long Valley Dam (which impounds Lake Crowley Reservoir) and the Upper, Middle, and Control Gorge Power Plants dewatered the lower Owens River Gorge, which has led to the development of early successional single-age stands of riparian vegetation along many sections of the Proposed Project reach. In addition, the reduction of historic disturbance events may be a factor in the establishment of upland plant species on adjacent terraces that contain elements of riparian vegetation. Without regular flooding to prepare these areas, suitable germination sites for riparian vegetation do not occur, and seedling survival is diminished (Howe and Knopf 1991). Flood events provide the essential geomorphic disturbance required to create new nursery sites for seedling recruitment while maintaining other areas relatively clear of vegetation within the scour zone, which provides habitat for a number of plant and animal species (Johnson et al. 1976).

However, if erosion excessively destabilizes riparian vegetation the pulse flows would not meet their intended objectives of restoring, improving, and maintaining the existing natural aquatic and riparian habitats within the Gorge. Stream bank failure and sediment scour could also increase or decrease channel width, affecting the amount of area potentially available for riparian plants.

During prolonged periods of inundation, some riparian vegetation may also deteriorate and not survive the rest of the year. Sprenger et al. (2001) noted that total submergence of cottonwood seedlings has resulted in complete mortality of first year saplings. Mortality of submerged riparian vegetation is related to a number of factors including the duration of inundation, water clarity, time of year, and, most importantly, the age class of affected trees. Plants flooded during early stages of development may not have the energy reserves required to persist for extended periods of time (Gladwin and Roelle 1998). Changes in riparian structure may also occur through stranding if channel migration occurs.

Whether the result of pulse flows and subsequent inundation is an adverse or beneficial effect on riparian vegetation is dependent on the frequency, duration, and depth of inundation (Teskey and Hinckley 1978) as well as on the long-term stability of physical floodplain features. Although increasing

the frequency of disturbance on riparian systems may result in temporal changes to existing vegetation, riparian ecosystems in the southwestern United States are highly dynamic and have adapted to a predictable cycle of disturbance resulting from winter rainfall and spring snowmelt. Floodplains and riparian systems are active depositional and erosional environments, prone to floods and shifting materials, storing excess sediments at times of low water, and providing sediments in floods. The proposed flow schedule would alter the fluvial dynamics that support the riparian communities within the lower Owens River Gorge and may enhance regeneration and long term sustainability of the riparian vegetation. However, if shear stresses increase beyond thresholds for mobilization of the root-reinforced plant substrate, the stability of the vegetation substrate and the vegetation community may be diminished.

Additional potential adverse impacts to riparian habitat that may occur as a result of the Proposed Project are associated with the reinforcing of existing facilities, which could result in both temporary and permanent impacts to riparian habitats under the jurisdiction of the CDFG and the U.S. Army Corps of Engineers. Sensitive resources are known to occur within the Gorge, and the Proposed Project could result in adverse effects to riparian habitat or other sensitive natural community identified in either local or regional plans, policies, and regulations, or by the CDFG or USFWS. Adverse impacts to wetlands, riparian, and upland habitats and sensitive natural communities may occur. Therefore, further evaluation of these impacts within the context of an Environmental Impact Report is recommended to assess their respective levels of significance, and establish appropriate mitigation measures, if any are needed.

- c. ***Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means?***

POTENTIALLY SIGNIFICANT IMPACT. The recruitment, establishment, and survival of riparian trees and wetland vegetation are closely linked to the hydrologic conditions and associated levels of disturbance that occur in natural stream systems (Ward and Stanford 1995). As addressed in Section 3.4 (b), above, scour and periodic inundation from high-flow releases may clear vegetation and debris, establish nursery sites for riparian trees such as cottonwood and willows, directly damage vegetation, or result in instability of substrates. Peak discharges from the proposed pulse flows may support the fluvial dynamics needed for the development and maintenance of wetland vegetation, but also could result in adverse impacts to federally protected wetlands. Therefore, implementation of the Proposed Project could result in long term benefits or losses of wetland and riparian habitat located within the lower Owens River Gorge. To evaluate potential impacts on potentially affected wetlands, analysis within the context of an Environmental Impact Report is needed.

The Proposed Project may affect potential federal-jurisdictional wetlands at reinforcement locations. Reinforcement of some of the existing power-production facilities within the lower Owens River Gorge is needed to prevent their damaged during the release of pulse flows. Impacts to jurisdictional wetlands, Waters of the United States, and regulated State waters could occur at select locations but would be anticipated to be small in area and mostly temporary in nature. Permanent impacts would likely occur from the placement of bank protection upstream of the MGPP. Reinforcement actions would be expected to result in only limited impacts to federal or state waters, which typically include all navigable waters and their tributaries. Federal or state water regulation requirement are determined by the respective agency (e.g., U.S. Army Corps of Engineers, State Water Resources Control Board, etc.). Although the Proposed Project area is not known to support populations of endangered or threatened species, there may be potential habitat. To fully evaluate potential impacts from proposed reinforcement activities, a jurisdictional delineation may need to be prepared. In addition, the LADWP may be required to obtain a Section 404 permit from the U.S. Army Corps of Engineers, and Section 401 and 402 permits from the State Water Resources Control Board (see *Section 2.6*). To more fully evaluate

potential impacts on wetlands in areas designated for construction, analysis within the context of an Environmental Impact Report is recommended.

- d. ***Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?***

POTENTIALLY SIGNIFICANT IMPACT. Riparian communities support some of the most diverse assemblages of wildlife and provide access to water, shade, and protection from predation. The Gorge and its riparian habitat functions as a movement corridor for some wildlife species. As discussed above (Section 3.4 [b]), the proposed flow regime, including pulse flows, may result in long term beneficial effects to riparian communities in the lower Owens River Gorge. Unless the riparian habitat is degraded by the proposed high flows, the Proposed Project would not interfere with either the movement of any resident terrestrial wildlife species or established resident wildlife corridors. Riparian communities subject to periodic disturbance typically provide a more complex community structure containing multiple successional states, which could result in increased usage by wildlife. One component of the Proposed Project is the placement of a pool and weir fish ladder near the Control Gorge Power Plant. This is expected to facilitate the upstream movement of trout and possibly other species from Pleasant Valley Reservoir.

Increased pulse flows could temporarily impede wildlife from crossing the river; however, the flows would be “ramped up” and “ramped down” slowly, thereby mimicking natural storm or run-off events. Evaluation of effects of potential destabilization of the riparian habitats by the proposed flow regimes on wildlife movement is part of the more general analyses identified in Sections a. and b. above within the context of the recommended Environmental Impact Report.

Temporary impacts to resident fish could occur from proposed streambank protection, but these impacts would be expected to be short-term and localized, and the installation would not result in substantial change to river channel morphology or roughness.

- e. ***Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

NO IMPACT. No trees protected under local tree preservation policies or ordinances would be removed. Therefore, no conflict with local policies and ordinances would occur.

- f. ***Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

NO IMPACT. The Proposed Project area does not fall within the boundaries of any Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs). The 1998 “Owens Basin Wetland and Aquatic Species Recovery Plan” prepared by the USFWS explicitly excludes the Owens River Gorge from potential recovery actions (U.S. Fish and Wildlife Service 1998). Therefore, the Proposed Project would not conflict with any adopted HCPs or NCCPs.

3.5 Cultural Resources

CULTURAL RESOURCES - Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CULTURAL RESOURCES - Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Response to Questions

a. *Would the project cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?*

NO IMPACT. A records search was conducted at the Eastern Information Center of the California Historical Resources Information System at the University of California, Riverside, on December 14, 2005. The records search shows that no prehistoric or historic cultural resources have been recorded in the Gorge. However, there are two abandoned powerhouses in the Gorge, known as the Adams Main Powerhouse and the Adams Auxiliary Powerhouse. These are concrete structures built in the 1920s by the Southern Sierras Power Company. They were purchased by the City of Los Angeles in 1933 and were in use until the 1950s. The two powerhouses retain only the integrity of location, having lost major structural and physical elements. In addition, they are not associated with significant historical events or persons important in history. They do not possess distinctive architectural or engineering characteristics. Therefore, they have been evaluated as not eligible for the California Register of Historical Resources (JRP 2004) and do not qualify as historical resources as defined in §15064.5 of the State CEQA Guidelines. Because there are no known historical resources in the Gorge, the Proposed Project would not cause a substantial adverse change in the significance of an historical resource.

b. *Would the project cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?*

NO IMPACT. A records search was conducted at the Eastern Information Center of the California Historical Resources Information System at the University of California, Riverside, on December 14, 2005. The records search shows that no prehistoric or historic cultural resources have been recorded in the Gorge. Eight prehistoric archaeological sites and two archaeological sites from the historic period have been recorded within one half mile of the Gorge, but these are all located on the uplands through which the Owens River has cut, not in the Gorge itself. Because there are no known archaeological resources in the Gorge, the Proposed Project would not cause a substantial adverse change in the significance of a unique archaeological resource.

c. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

NO IMPACT. The sediments in the Gorge that might be disturbed by introduced flows are likely of Holocene age (deposited during the last 10,000 years), and, therefore, would not contain significant fossils. The Proposed Project would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

d. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

NO IMPACT. There are no known cemeteries in the Gorge. Native Americans would not have buried their ancestors in a Gorge where they could be washed away by floods. The Proposed Project would not disturb any human remains.

3.6 Geology and Soils

GEOLOGY AND SOILS - Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Response to Questions

a. *Would the project expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving:*

i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

NO IMPACT. The Proposed Project would reintroduce flows through the Gorge to comply with Fish and Game Code 5937. The Proposed Project would not include the construction any new habitable structures, and would not result in any persons occupying the area. Therefore, the Proposed Project would not introduce any persons or structures to risks associated with the rupture of a known earthquake fault in the area.

ii) *Strong seismic ground shaking?*

NO IMPACT. The Proposed Project would not include any new habitable structures, and would not result in any persons occupying the site. Therefore, the Proposed Project would not introduce any persons or structures to risks associated with seismic ground shaking. The Proposed Project would include the reinforcement of structures described in the *Project Description*,

as well as partial relocation of an existing access road to an area previously filled may be needed. The reinforcement of these facilities is intended to prevent potential damage to structures from pulse flows; however, these reinforcement projects would be designed to minimize potential impacts from any seismic induced ground shaking.

iii) *Seismic-related ground failure, including liquefaction?*

NO IMPACT. The Proposed Project would not include any new habitable structures, and would not result in any persons permanently occupying the Proposed Project area. Therefore, the Proposed Project would not introduce any persons or structures to risks associated with seismic-related ground failure or liquefaction. All reinforcement activities associated with the Proposed Project involve existing facilities; these activities would not introduce new development on soils that could be subject to liquefaction during a seismic event.

iv) Landslides?

LESS THAN SIGNIFICANT IMPACT. The Proposed Project would not include any new habitable structures, and would not result in any persons permanently occupying any section of the Gorge. Therefore, the Proposed Project would not cause any residents or structures to be placed at risk due to a landslide. However, pulse flows may cause accumulated clean rock rubble to slide in a chute downstream of the Middle Gorge Power Plant. The LADWP would post warning notices prior to and during pulse flows to alert the recreating public to possible dangers. Due to the implementation of warning notices, exposure of people or structures to this rock rubble slide would be minimal.

b. *Would the project result in substantial erosion or the loss of topsoil?*

LESS THAN SIGNIFICANT IMPACT. During reinforcement activities and installation of the pool and weir fish ladder, grading and site preparation activities may expose soils to wind and water erosion, which could potentially cause temporary erosion impacts. Fugitive dust could result under windy conditions and from construction-related equipment and vehicles traversing active construction sites. As indicated in Section 3.3 (b), a water sprinkler truck would be mobilized, as needed, to minimize fugitive dust. In addition, sediment control measures such as such diking project areas with concrete blocks, “K” rails, and sandbags, and minimizing the length of time that excavated soils are exposed (stockpiled) would be implemented to minimize on- and offsite erosion.

The majority of the Gorge’s existing sediment supply is the result of coarse (e.g., cobbles, boulders, and large blocks) and finer (sands) materials from adjoining canyon walls and side slopes. The long-term storage and accumulation of fine sediment is dependent on the supply of sediment from colluvial sources and the transport capacity of the predominantly narrow channel width and steep gradients (Ecosystem Sciences 2000). The potential loss of topsoil from depositional features within the Gorge from long-term implementation of the Proposed Project would not be substantial unless the riparian habitats are destabilized by the pulse flows; see Section 3.4 above. In the absence of destabilization, the long-term growth of riparian vegetation would be anticipated to capture and stabilize fine sediments .

Implementation of the Proposed Project would result in long-term pulse flows that may increase channel and floodplain erosion potential. These impacts are addressed in Section 3.4(b), below, and an Environmental Impact Report to further assess them, within the context of hydrology and water quality, is recommended.

c. *Is the project located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?*

LESS THAN SIGNIFICANT IMPACT. Project area soils and subsoils are a combination of bedrock, coarse colluvium, and steep river-worked alluvium . The Proposed Project area does not have the potential for lateral spreading, subsidence, liquefaction, or collapse. However, one steep bedrock gully within the Proposed Project area contains unstable anthropogenic coarse colluvium at the angle of repose, and it is susceptible to mobilization by pulse flows. The extent of this feature is small, and the results of the removal of this colluvium by the river are not significant. ,

d. Is the project located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial risks to life or property?

NO IMPACT. Project area soils and subsoils are a combination of bedrock, coarse colluvium, and steep river-worked alluvium. They do not have the potential for lateral spreading, subsidence, liquefaction, or collapse, and are not considered expansive soil as defined in Table 18-1-B of the Uniform Building Code. The Proposed Project would not include any new habitable structures, and thus would not place any persons or developed property at risk due to expansive soils.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

NO IMPACT. The Proposed Project would not include any new habitable structures, and would not result in any persons permanently occupying the Proposed Project area. Therefore, the Proposed Project would not introduce the need for wastewater disposal systems.

3.7 Hazards and Hazardous Materials

HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Impair implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Response to Questions

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

LESS THAN SIGNIFICANT IMPACT. While reinforcement activities may involve the limited transport, storage, use, or disposal of hazardous materials, such materials needed for the fueling/servicing of construction equipment on site, these activities would be short-term or one-time in nature and would be subject to applicable federal, state, and local health and safety requirements.

The Proposed Project would reintroduce flows through the Gorge for the purposes of restoring, improving, and maintaining existing natural aquatic and riparian habitats. Long-term operations of the Proposed Project would not involve the transport, storage, use, or disposal of hazardous materials.

- b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

NO IMPACT. Based on the limited nature and use of hazardous materials during construction (see Section 3.7 [a], above), and the use of no hazardous materials during operation, there would be no reasonably foreseeable upset or accident conditions that would create a significant hazard to the public due to the release of hazardous materials.

- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

NO IMPACT. The nearest school is located in Round Valley, approximately five miles from the Proposed Project area. Therefore, the Proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

- d. *Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

NO IMPACT. Mono and Inyo Counties contain no sites identified by the State of California Department of Toxic Substances Control as hazardous materials sites per the Hazardous Waste and Substances Site (Cortese) List (DTSC 2005). Therefore, the Proposed Project area is not located within or adjacent to a hazardous material site.

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?***

NO IMPACT. The Proposed Project area is not located within an airport land use plan or within two miles of an airport, and no private airstrip is located within the Proposed Project vicinity.

- f. *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?***

NO IMPACT. The Proposed Project area is not located within an airport land use plan or within two miles of an airport, and no private airstrip is located within the Proposed Project vicinity.

- g. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

NO IMPACT. The Proposed Project area does not include any residential population or transportation facilities that could be used or impacted during an emergency evacuation. The Proposed Project would potentially include the relocation of an approximately 200-foot dirt road on the west bank of the Gorge. This road is not included in any adopted emergency evacuation plan, and is used for LADWP maintenance vehicle access only. Therefore, the Proposed Project would not impair implementation of adopted emergency response plans or emergency evacuation plans.

- h. *Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?***

LESS THAN SIGNIFICANT IMPACT. . The proposed flow regime may increase riparian biomass, which could be combustible during drought periods or windy conditions. Pulse flows would tend to

remove decadent woody vegetation, which could tend to reduce combustible fuels. Given the vegetation discontinuity between the floor of the Gorge and the surrounding uplands, changes in fuels on the floor of the Gorge would have little or no effect of wildland fire hazards in the surrounding uplands.

During reinforcement activities, construction crews would have fire-suppression equipment (such as fire extinguishers) available on site to respond to the accidental ignition of a fire.

The Proposed Project does not involve the construction of new habitable structures or the permanent introduction of new persons to the project area.

The Proposed Project would therefore not increase the risk of loss, injury, or death of persons or property due to wildland fires.

3.8 Hydrology and Water Quality

HYDROLOGY AND WATER QUALITY - Would the project:				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on or off site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Place within a 100-year floodplain structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Inundate by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Response to Questions

a. Violate any water quality standards or waste discharge requirements?

POTENTIALLY SIGNIFICANT IMPACT. Construction related activities would require up to an estimated two acres of disturbance. As addressed in Section 2.6, the LADWP would prepare and submit a SWPPP to the SWRCB for review and approval prior to any construction-related activities. The SWPPP would outline proposed BMPs to minimize water contamination from storm water and

non-storm water during construction, pursuant to Section 402 NPDES requirements. Additionally, the Proposed Project may require Section 401 WQC from the Lahontan RWQCB should high flows result in violations to water quality standards, such as transient increases in turbidity levels in Pleasant Valley Reservoir. The LADWP would ensure that the construction contractor complies with all stipulations of the Proposed Project's SWPPP and WQC, thereby avoiding violations of water quality standards and waste discharge requirements during construction.

Higher water surface elevations and increased water velocities from pulse flows would have the potential to affect channel morphology and riparian vegetation by the physical processes of scour, inundation, sediment deposition, and channel migration. These processes would remove vegetative cover and disturb channel substrates, and potentially could cause concentrations of turbidity, biostimulatory nutrients (i.e., nitrogen, phosphorus), and suspended solids in the Owens River and Pleasant Valley Reservoir to exceed water quality standards. Because water is released to the Middle Owens River from Pleasant Valley Reservoir, this reach of the Owens River also could be potentially affected.

Flows within the lower Owens River Gorge would originate from water stored in Lake Crowley Reservoir. Although considered unlikely, impacts to water quality in the lower Owens River Gorge could occur if water released from Lake Crowley Reservoir was deficient in dissolved oxygen, or included sediments containing pollutants (Miller 2006).

- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

NO IMPACT. The Proposed Project would not involve groundwater withdrawal.

- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?**

POTENTIALLY SIGNIFICANT IMPACT. Higher water surface elevations and increased water velocities from pulse flows would have the potential to cause localized or widespread erosion and increases in suspended solids that could result in increased siltation (see Sections 3.4 [b] and 3.8 [a], above).

Further investigation within the context of an Environmental Impact Report is recommended.

- d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?**

POTENTIALLY SIGNIFICANT IMPACT. Because water would be released to the lower Owens River Gorge continuously (i.e., 24 hours per day) during releases for channel maintenance and riparian recruitment, pulse flows have the potential to increase inflows into Pleasant Valley Reservoir on an hourly or daily basis, relative to inflows occurring under existing hydropower operations. These increases in inflows to Pleasant Valley Reservoir could cause LADWP to increase its releases to the Owens River from the reservoir, if Pleasant Valley Reservoir cannot absorb this extra inflow occurring as a result of the pulse flows. Although hourly or daily flows in the Owens River downstream of Pleasant Valley Reservoir could be affected, project operations are not anticipated to have an effect on reservoir surface elevations or Owens River flows downstream of the reservoir on a monthly or seasonal scale. In addition, water surface elevations and storage levels in Lake Crowley Reservoir could be similarly affected because of differences in the frequency and duration of reservoir releases for pulse flows, compared to existing releases for hydropower operations. Because downstream impacts could be

potentially significant, further investigation within the context of an Environmental Impact Report is needed.

e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

POTENTIALLY SIGNIFICANT IMPACT. See Sections 3.8 (c) and (d) above. Existing drainage structures systems downstream of Pleasant Valley Reservoir could be significantly affected. Therefore, further investigation of potential impacts within the context of an Environmental Impact Report is recommended.

f. Otherwise substantially degrade water quality?

POTENTIALLY SIGNIFICANT IMPACT. As addressed in Section 3.8 (a), above, the LADWP would ensure that the construction contractor complies with all requirements of the Proposed Project’s SWPPP and WQC, thereby minimizing potential water quality degradation. During long-term operation, an increase in water turbidity and suspended solids within the lower Owens River Gorge, and subsequently to Pleasant Valley Reservoir is anticipated. Further investigation of potential impacts within the context of an Environmental Impact Report is recommended.

g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

NO IMPACT. The Proposed Project would not involve the construction of housing, and would not affect the 100-year discharge or floodplain in the lower Owens River Gorge.

h. Place within a 100-year flood area structures to impede or redirect flood flows?

NO IMPACT. The Proposed Project would not involve the construction of any new structures.

i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

POTENTIALLY SIGNIFICANT IMPACT. The Gorge is a recreational area and is regularly accessed by the public for recreational purposes, including fishing (please refer to Section 3.14). The proposed pulse flows would increase the flow rate in the lower Owens River Gorge to up to 680 cfs, which would result in flow depths and velocities across most of the channel section that exceed human stability criteria established by Abt et al (1989). Wading for fishing or swimming would be considered hazardous. To the extent that LADWP cannot eliminate public entry into the project area during pulse flows, some exposure to a flood-like hazard could result. Measures to minimize or prevent this potentially significant impact should be examined in the recommended environmental impact report.

j. Inundation by seiche, tsunami, or mudflow?

NO IMPACT. The Proposed Project area is not subject to inundation by seiche, tsunami, or mudflow.

3.9 Land Use and Planning

LAND USE AND PLANNING – Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural communities conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Response to Questions

a. Would the project physically divide an established community?

NO IMPACT. The Proposed Project area includes an approximate 10 mile segment of the Gorge that is located between the Upper Gorge Power Plant and Pleasant Valley Reservoir. There are no communities or private residences located within the Proposed Project area; existing structures include roads, buildings, and transmission towers associated with hydroelectric generation, and public restrooms. Therefore, the Proposed Project would not physically divide an established community.

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

NO IMPACT. The Gorge is located in a relatively remote area with limited public access. Land uses within the Gorge itself include activities associated with hydroelectric power generation and recreation.

The northern portion of the Proposed Project reach is located within Mono County, California, and its southern portion is located within Inyo County, California. The Mono County General Plan land use designation and zoning for the Proposed Project area are *Open Space* (Mono County 2006). The Inyo County General Plan land use and zoning for the Proposed Project area are *Agriculture* and *Open Space*, respectively.

A portion of the Proposed Project area, north of the Middle Gorge Power Plant from Gorge Mile 1 to approximately Mile 11 (see Figure 1), falls within Inyo National Forest. Within the Inyo National Forest, the Proposed Project area falls within *Management Area Number 12*, and a small portion of *Management Area Number 14* (U.S. Department of Agriculture, U.S. Forest Service, Inyo National Forest 1988). Within Management Area Number 12, the Proposed Project area falls within prescription allocation (Rx) designations for *Mule Deer Emphasis* (Rx 4) and *Range Emphasis* (Rx 11); within Management Area Number 14, the Proposed Project area falls within prescription allocation designations for *Concentrated Recreation* (Rx 12) and *Mule Deer Emphasis* (Rx 4) (U.S. Department of Agriculture, U.S. Forest Service, Inyo National Forest 1988). It is noted, however, that the Gorge itself is under the ownership and management of the LADWP (Ecosystem Sciences 2000).

South of the Inyo National Forest, lands adjacent to the Gorge are managed by the Bureau of Land Management (BLM), Bishop Field Office (U.S. Department of the Interior, Bureau of Land Management 2006). BLM-managed lands extend from approximately Gorge Mile 11 (Figure 1) to Pleasant Valley Reservoir. Within this area, the BLM does not have any designated *Wilderness Study Areas*; lands are generally used and managed for sheep and cattle grazing on the east and wildlife habitat on the west (mule deer and limited pronghorn antelope range, and seasonal raptor nesting areas in cliff areas) (Primosch 2006). As with that portion of the Gorge that traverses Inyo National Forest, the Gorge itself in this southern area falls under the ownership and management of the LADWP.

Implementation of the Proposed Project would permanently reintroduce water flows. The only development associated with the Proposed Project is the reinforcement of existing LADWP facilities, modifications to existing access roads, and installation of a pool and weir fish ladder. Construction-related activities associated with these Proposed Project elements would be temporary in nature, and would not cause substantial or permanent conflicts with the Proposed Project area's existing land uses or designations. The reintroduction of flows would not permanently alter or otherwise disrupt existing land uses, or conflict with the Proposed Project area's land use designations or zoning.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

NO IMPACT. The Proposed Project area does not fall within the boundaries of any *Habitat Conservation Plans* (HCPs) or *Natural Community Conservation Plans* (NCCPs). The 1998 *Owens Basin Wetland and Aquatic Species Recovery Plan* prepared by the USFWS explicitly excludes the Gorge from potential recovery actions (U.S. Fish and Wildlife Service 1998). Therefore, the Proposed Project would not conflict with any adopted HCPs or NCCPs.

3.10 Mineral Resources

MINERAL RESOURCES - Would the project:				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Response to Questions

a. Would the project result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the State?

NO IMPACT. No known mineral resources exist within the Proposed Project area. The Proposed Project is limited to activities associated with permanent water flow and habitat restoration, and would not include mineral extraction.

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

NO IMPACT. See Section 3.10(a), above. No mineral resources are located within the Proposed Project area’s boundaries, and no mineral extraction is proposed.

3.11 Noise

NOISE - Would the project result in:				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Response to Questions

- a. *Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

LESS THAN SIGNIFICANT IMPACT. Short-term construction activities for reinforcement of existing structures and facilities and for installation of the pool and weir fish ladder would cause elevated noise levels at and near the work sites. The work would occur in a remote portion of the Gorge, where fishing and rock climbing areas occur, but no permanent noise-sensitive land uses would be affected. No noise impacts would occur after construction-related activities are completed. Local general plans and noise ordinances would not apply to the short-term construction activities because of the lack of surrounding noise-sensitive land uses.

- b. *Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?***

LESS THAN SIGNIFICANT IMPACT. The Proposed Project would not be expected to result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels. Reinforcing existing structures and facilities and installation of the pool and weir fish ladder may cause localized groundborne vibration with heavy equipment activity; however, vibration would attenuate rapidly with distance and would be temporary. No vibration-sensitive land uses are in the vicinity of the construction sites. Thus, impacts from groundborne vibration or groundborne noise would be less than significant.

- c. *Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***

NO IMPACT. The Proposed Project would not cause long-term or permanent operation of any new sources of noise, except for the timing and intensity of the sound of flowing water in the Gorge. This would not be a substantial change from existing conditions, which include noise from flowing water. Therefore, no impacts would occur.

- d. *Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?***

LESS THAN SIGNIFICANT IMPACT. As described above, land uses near the Proposed Project site are undeveloped and rural. During construction, fishing and rock climbing areas in the vicinity of the Proposed Project area would be exposed to noise generated by the construction equipment. Considering construction noise impacts would be temporary in nature, and the lack of nearby, permanent sensitive receptors, noise impacts would be less than significant with implementation of the BMPs identified in Section 3.11 (a), above.

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

NO IMPACT. The Proposed Project is not located within an airport land use plan or within two miles of an airport or airstrip, and would not involve the operation of aircraft. Therefore, the Proposed Project would not have the potential to expose people to excessive aircraft noise. No impacts would occur.

- f. *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?***

NO IMPACT. The Proposed Project area is not within the vicinity of an airstrip. No impacts would occur.

3.12 Population and Housing

POPULATION AND HOUSING – Would the project:				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Response to Questions

- a. ***Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

NO IMPACT. The Proposed Project would not include the development of any residential housing, and would not require any additional LADWP staffing after completion of reinforcement and fish passage construction activities. Therefore, the Proposed Project would not result in any direct or indirect increases to the local population.

The Proposed Project would possibly include the relocation of an approximately 200-foot road on the west bank of the Gorge. This road is used for LADWP maintenance vehicle access only. Therefore, the Proposed Project would not result in an indirect increase to the local population through the extension of roadways or other public infrastructure.

- b. ***Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?***

NO IMPACT. A limited number of residential dwellings (approximately 10) are located near the Control Gorge Power Plant. However, these residences are used exclusively by LADWP personnel, and they would not be removed as the result of the Proposed Project. Additionally, the Proposed Project would not require the removal of any existing housing units outside of the Gorge, and thus would not trigger the need for replacement housing elsewhere.

- c. ***Would the project displace substantial numbers of people necessitating the construction of replacement housing elsewhere?***

NO IMPACT. As addressed in Section 3.12 (a), above, a small number of residential units used exclusively by the LADWP are located within the Gorge. However, implementation of the Proposed Project would neither require the removal (displacement) of these residential dwellings, nor displace persons or homes outside of the Gorge. Therefore, the Proposed Project would not require the construction of replacement housing.

3.13 Public Services

PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Response to Questions

- a. ***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:***

i) Fire protection?

LESS THAN SIGNIFICANT IMPACT. The Proposed Project would not introduce any residential housing units in the Gorge or elsewhere, and would not require additional staffing that would increase the demand for fire services in the area. Implementation of the Proposed Project may increase the volume of combustible materials as the Gorge’s riparian forest matures and expands. However, as addressed in Section 3.7 (h), above, the net fire risk of the Proposed Project area would be expected to remain the same. Therefore, the Proposed Project would not require new or physically altered fire facilities.

ii) Police protection?

NO IMPACT. The Proposed Project would not introduce any residential housing units in the Gorge or elsewhere, and would not require additional staffing that would increase demand on police services in the area. Therefore, the Proposed Project would not require new or physically altered police facilities.

iii) Schools?

NO IMPACT. The Proposed Project would not introduce any residential housing units in the Gorge or elsewhere, and would not require additional staffing that would increase demand on local schools. Therefore, the Proposed Project would not require new or physically altered school facilities.

iv) Parks?

LESS THAN SIGNIFICANT IMPACT. The Proposed Project would not introduce any residential housing units in the Gorge or elsewhere, and would not require additional staffing that would directly increase demands on local parks. Implementation of the Proposed Project may cause some recreational users of the Gorge to relocate to other recreational areas of the region during high water flows. However, these periodic and temporary relocations would not be anticipated to require the construction of new parks or recreational facilities or the physical alteration of existing parks and recreation facilities. Please refer to Section 3.14 for an additional assessment of recreational facilities.

v) *Other public facilities?*

NO IMPACT. The Proposed Project would include the possible relocation of an approximate 200-foot dirt road on the west bank of the Gorge. This road is used for LADWP maintenance vehicle access only. The Proposed Project would neither involve the construction of new housing, nor require additional staffing during operation. Therefore, the Proposed Project would not increase population or affect the existing operation of other local and regional public facilities, such as libraries and roadways.

3.14 Recreation

RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Would the project diminish recreation opportunities or existing recreation use of the project area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Response to Questions

a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

LESS-THAN-SIGNIFICANT IMPACT. During the pulse flow events, recreational rock climbing and fishing in the project reach would be displaced from the Gorge, due to the dangerous flow conditions and inability of persons to cross the river during these periods. (Section 3.8 [i] describes the hazards facing persons attempting to enter the water during pulse flows.) Fishing by well-conditioned anglers has become popular in the Gorge since flows were restored, and rock climbing in the Gorge appears to be rapidly increasing in popularity. These activities can likely be accommodated at the many other locations in the region, and it is not anticipated that the temporarily increased use in those areas would result in significant resource damage there.

b. *Would the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?*

NO IMPACT. The Proposed Project does not include the construction or expansion of recreational facilities.

c. *Would the project diminish recreation opportunities or existing recreation use of the project area?*

POTENTIALLY SIGNIFICANT IMPACT. During the pulse flow events, existing recreation use of the Gorge in the project reach could diminish; see discussion under question “a” above. Because this diminished opportunity will exist for only a few days (less than 7 days in 13 years of each 20-year period and less than 27 days in 5 years of each 20-year period), this impact is not considered to be significant.

Over the long term, impacts to recreational fishing, and, to lesser degree, to rock climbing, birding, and other nature observation in the Gorge would depend upon the ecosystem-disturbance effects of the pulse flows. If, as addressed in Sections 3.1(b) and 3.4 (a-d), the Gorge’s developing wetland and riparian systems are significantly destabilized by the pulse flows, the river’s fishery and the Gorge’s scenic

character could be adversely affected and recreation opportunity and use diminished. As noted in those sections, this potential adverse outcome requires evaluation in an Environmental Impact Report.

3.15 Transportation and Traffic

TRANSPORTATION/TRAFFIC - Would the project:				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Proposed Project is located in the Owens River Gorge, approximately one to two miles east of Highway 395, in unincorporated Mono and Inyo Counties. Highway 395 is the primary transportation corridor for the region. Lightly-traveled access and service roads connect the existing LADWP hydroelectric facilities and recreational opportunities within the Gorge with the highway. About 50 vehicles per day travel the Gorge road from Highway 395 to the Control Gorge Power Plant, and a dirt access road of about 0.3 miles provides access to the pool and weir fish ladder site. The access and service roads traverse lands of Inyo National Forest; however, the areas of proposed construction activities are under the ownership and jurisdictional authority of the LADWP. Except during closure periods associated with the pulse flows, service roads and trails into the Gorge will remain open to the public for non-motorized access. Motorized access into the Gorge at the UGPP and MGPP will continue to be limited to LADWP and its contractors.

Response to Questions

- a. **Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?**

LESS THAN SIGNIFICANT IMPACT. Reinforcement of existing structures and facilities and installing the proposed pool and weir fish ladder would involve construction-related traffic for mobilization of workers and materials. During construction activities, it is estimated that up to 15 construction workers would drive to and from work sites each workday. Workers would arrive to the site at approximately 6:00 a.m. and leave the site at 6:00 p.m., Monday through Friday. No work would occur during the weekends or holidays, except if an unanticipated constraint regarding personnel availability or delivery schedules occurs. Reinforcement of the existing structures and facilities, including the possible relocation of 200 feet of dirt road, would require placement of up to 500 cubic yards of concrete, boulders, sandbags, and riprap. The construction material and waste for disposal would need to be hauled to and from the work sites by truck. Concrete trucks with a capacity of 10 cubic yards (270 cubic

feet) or eight cubic yards (216 cubic feet) would haul concrete to the site, and dump trucks (10 cubic yards or five cubic yards capacity) would be used to move material within the project area. It is estimated that up to 10 haul trips could occur in a single workday.

Because construction activity may potentially require roadway or parking area closures and/or brief traffic detours, the LADWP would include appropriate project measures to mitigate any potential construction-related traffic impacts. No project-specific transportation or wide load permits are expected to be required by the California Department of Transportation or the Mono or Inyo County Public Works/Roads Departments because work would involve only highway-legal activity and vehicles. The LADWP has committed to implementing the guidelines and measures of the Work Area Protection and Traffic Control Manual developed by the California Joint Utility Traffic Control Committee (1999). With the implementation of these actions, construction-related activities would result in a less than significant traffic impacts.

As addressed in Section 3.3 (a), long-term operation of the Proposed Project would likely require periodic monitoring of release flows; however, this monitoring would be conducted by existing LADWP personnel and would be expected to occur in conjunction with existing monitoring, inspection and maintenance of the Gorge and its facilities. Therefore, no increase in existing traffic conditions of the Proposed Project area or its surrounding road network would occur.

The altered flows could affect the quality of recreational facilities along the Gorge, as addressed in Section 3.14 (Recreation). Although some visitors may change their plans for recreation upon discovering the altered flows, the Proposed Project is not expected to significantly increase the number of visitors attracted to the Proposed Project area. Consequently, traffic caused by recreational visitors would not be anticipated to change substantially.

b. *Would the project cause, either individually or cumulatively, a level-of-service standard established by the county congestion management agency for designated roads or highways to be exceeded?*

NO IMPACT. Because there would be no permanent change in traffic or the transportation facilities within the area (see Section 3.15 [a]), above, the Proposed Project would not have the potential to affect the level of service of any transportation facility.

c. *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

NO IMPACT. The Proposed Project would not affect air traffic patterns or safety.

d. *Would the project substantially increase hazards because of a design feature or incompatible uses?*

NO IMPACT. Short-term construction activities would cause increased levels of traffic and increased vehicular turning movements at the intersections within the Proposed Project area and on access and service roads, including those connecting with Highway 395. This could cause an increased number of traffic conflicts and a corresponding increase in the probability of an accident. Construction traffic would be highway-legal in accordance with the requirements of the California Department of Transportation and applicable Mono and Inyo County requirements (see Section 3.15 [a], above). Construction activities would not, therefore, substantially increase hazards due to a design feature or incompatible uses. Because there would be no permanent change in traffic or the transportation facilities of the Proposed Project area, the Proposed Project would not have the potential to increase transportation hazards.

e. *Would the project result in inadequate emergency access?*

LESS THAN SIGNIFICANT IMPACT. The Proposed Project would not allow access to roads above MGPP by emergency response vehicles during high flow releases. This intermittent effect is not anticipated to be significant because existing demand for emergency access is limited to one or two events per year, pulse flows would disallow access for only a few days, and signing will be used to warn

visitors that high flows pose dangerous conditions and that Gorge access during pulse flow periods is prohibited.

f. Would the project result in inadequate parking capacity?

NO IMPACT. Construction of the Proposed Project would generate a temporary demand for parking for construction worker vehicles. Existing parking facilities owned and maintained by the LADWP would be available within the Proposed Project's boundaries. Because the public would not have access to the construction sites, use of this area would not affect parking capacity, and no impacts would result. Because there would be no permanent change in traffic or the transportation facilities within the Proposed Project area, the Proposed Project would not have the potential to affect parking access.

g. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

NO IMPACT. The Proposed Project would not conflict with adopted policies that support alternative transportation.

3.16 Utilities and Service Systems

UTILITIES AND SERVICE SYSTEMS - Would the project:	Less Than Significant With Mitigation Incorporated			
	Potentially Significant Impact	Less Than Significant Impact	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Result in a determination by the wastewater treatment provider, which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Impact existing downstream water supply obligations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Response to Questions

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

NO IMPACT. The Proposed Project would not introduce any residential housing or require additional staffing that would increase demand on wastewater service in the area. Therefore, the Proposed Project would not have the potential to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

NO IMPACT. The Proposed Project would not introduce any residential housing, or require additional staffing that would increase demand on wastewater treatment facilities. Therefore, the Proposed Project would not require new or physically altered wastewater treatment facilities.

- c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

NO IMPACT. The Proposed Project would not significantly alter the amount of permeable surface within the Proposed Project area, and would not result in any Proposed Project features that would alter the direction or amount of existing stormwater drainage facilities. The Proposed Project would not require the construction of new stormwater drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.

- d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

LESS THAN SIGNIFICANT IMPACT.

The Proposed Project would receive its water from Crowley Reservoir. On average, inflow to Crowley Reservoir is approximately three to four times greater than the proposed releases into the Gorge. Under certain circumstances, pulse flows would require the use of a portion of the water stored at Crowley Reservoir. However, as explained in this Initial Study's "Project Description" (Section 2.4), the LADWP would avoid implementation of pulse flows at times when instream releases exceed reservoir inflow to prevent drawing down Crowley Reservoir level during the fishing season. Therefore, the Proposed Project is not anticipated to increase nor decrease water supplies of the reservoir. Instream releases to the Gorge would terminate at Pleasant Valley Reservoir. As addressed in Section 3.8 (c), pulse flow volumes would be approximately 5,600 AF for channel maintenance, and 13,000 AF for riparian recruitment. The Pleasant Valley Reservoir has a capacity of 2,989 AF (LADWP, 2006). Since total pulse flow volumes would be approximately two to four times the capacity of the Pleasant Valley Reservoir, it may be necessary to increase discharges from Pleasant Valley Reservoir during pulse flows. The additional inflow would be discharged downstream of the reservoir, resulting in net stored water losses from Pleasant Valley Reservoir.

- e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

NO IMPACT. The Proposed Project would not introduce any residential housing units to the area, or require additional staffing that could increase demand on wastewater treatment facilities. Therefore, the Proposed Project would not result in demand to wastewater treatment facilities that could alter existing capacities.

- f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

NO IMPACT. Solid waste generated during construction activities would be minimal. During operation, the Proposed Project would not introduce any residential housing units to the area and would not require additional staffing that could increase demand on solid waste disposal facilities. Therefore, the Proposed Project would not require new or physically altered wastewater treatment facilities.

- g. Comply with federal, state, and local statutes and regulations related to solid waste?**

NO IMPACT. Solid waste generated during construction activities is expected to minimal. Additionally, the Proposed Project would not involve the construction of residential housing components, and would not require additional staffing that could increase demand on solid waste disposal facilities. Therefore,

no conflicts with federal, state, and local statutes and regulations related to solid waste would be anticipated.

h. Impact existing downstream water supply obligations?

Potentially Significant. The Proposed Project would receive its water from Crowley Reservoir. On average, flow to Crowley Reservoir is approximately three to four times greater than the proposed releases into the Gorge, which in the past would have provided flexibility to deliver the proposed project flows while still retaining the storage needs necessary to operate the aqueduct and meet water supply requirements. However, since the settlement flows were agreed upon water demands have changed significantly in the Eastern Sierra. Crowley Reservoir operations have recently been impacted by the ongoing drought and reduction of water supplies from other sources.

Implementation of the proposed flows may affect LADWP's ability to maintain sufficient water supplies during drought years. In 2009, LADWP was maximizing summer storage in Crowley Reservoir to meet water supply requirements during the winter period. Crowley Reservoir's storage functions may be affected if high water demands require simultaneous deliveries to Owens Lake dust control operations, the Lower Owens River Project, and the Gorge creating a cumulative effect. In addition, supplies from the California delta region and Colorado River may not be sufficient to cover for the losses.

3.17 Energy Supply

ENERGY SUPPLY AND SUPPLY SYSTEMS - Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Potentially result in significant environmental impacts in other locations as a result of changes in energy supply or in energy supply (distribution) systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Response to Questions

a. Potentially result in significant environmental impacts in other locations as a result of changes in energy supply or in energy supply (distribution) systems?

POTENTIALLY SIGNIFICANT IMPACT. The use of water to keep fish in good condition in the Owens Gorge requires reductions in flow historically diverted to hydroelectric power generation. In response to this reduction, power may need to be generated elsewhere or power distribution facilities may need to be altered. Either additional power generation or changes to infrastructure may have significant environmental impacts. Since compensating power might not come from hydroelectric sources, this action may shift power generation from hydropower to hydrocarbon fuel combustion, which involves increased carbon dioxide emissions with climate change implications. An assessment is needed of existing power production that would be foregone if the project were implemented, the source of power that LADWP would need to acquire, implications to generating capacity and grid infrastructure, and the type of physical impacts that could result from acquiring compensating power.

Also, the potential exists for the proposed pulse flows to increase sedimentation rates in Pleasant Valley Reservoir. To the degree that flows cause substantial sediment mobilization (see Questions 3.4 b, c, and d), this deposition could occur and have some effect on energy production. This potential impact should be evaluated in the EIR.

3.18 Public Health

PUBLIC HEALTH - Would the project:				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in potentially significant risks to public health?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Response to Questions

a. Result in potentially significant environmental risks to public health?

POTENTIALLY SIGNIFICANT IMPACT. The proposed pulse flows may result in water volumes that exceed the capacity of Pleasant Valley Reservoir below the project reach to store water for gradual release, requiring immediate release of a significant portion of the flows to the downstream river channel. In this case, water may overflow the river channel and local irrigation distribution ditches and inundate areas of the Owens River floodplain more frequently than currently occurs. This ponded or slowly-moving water may increase the production of mosquitoes and increase disease vectors, thereby increasing risks to recreationists and residents in the local area and require increased vector-control efforts by the county environmental health department. This potential impact requires evaluation in an EIR.

3.19 Mandatory Findings of Significance

MANDATORY FINDINGS OF SIGNIFICANCE				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, effects of other current projects, and the effects of probable future projects.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Response to Questions

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

POTENTIALLY SIGNIFICANT IMPACT. The Proposed Project may adversely impact biological resources, hydrology and water quality, and recreation. Potential adverse construction-related impacts to (1) state and federally listed wildlife and plant species, and (2) wetland, riparian, and upland habitats and sensitive natural communities could result. Potential adverse impacts associated with increased erosion, flooding, flood risk, and use of recreational facilities outside of the Gorge may also occur. An Environmental Impact Report is recommended to determine if these impacts are substantial enough to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species,

cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. The recommended Environmental Impact Report will also evaluate the significance of these potential impacts and recommend mitigation measures as needed to reduce the significance of these impacts. No resources that are important examples of the major periods of California's history or prehistory would be affected.

- b. *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, effects of other current projects, and the effects of probable future projects.)*

POTENTIALLY SIGNIFICANT IMPACT. No known projects are proposed for implementation either in the Gorge or in areas adjacent to it. The Proposed Project area is in a remote area of the Owens Valley that primarily is used for hydroelectric power generation and recreation. Lands adjacent to the Gorge are managed by the U.S. Forest Service and Bureau of Land Management for the purposes of recreation, grazing, and wildlife. Impacts of replacing lost power production are currently unknown, and could be potentially cumulatively considerable.

- c. *Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?*

POTENTIALLY SIGNIFICANT IMPACT. The Proposed Project could increase drowning-hazard risks to people entering the water during pulse-flow releases; see section 3.8(i) above. These hazards presently occur downstream of Pleasant Valley Reservoir as well, and their frequency could slightly increase depending on the proposed release schedule of that reservoir. No other direct or indirect adverse effects on human beings have been identified in this IS.

4. References

- 395.com. 2006. *The traveler's guide to historic Highway 395, Inyo County Parks and Recreation, Pleasant Valley Campground.* <http://www.395/index.shtml?/generalinfo/inyocampgrounds.shtml>. Accessed January 12, 2006.
- Abt, S.R., R.J. Whittler, A. Taylor, and D.J. Love. 1989. *Human stability in a high flood hazard zone.* Water Resources Bulletin 25(4):881-890.
- Adventure Sports Journal. 2006. *Adventure sports journal online, destination: Mammoth – autumn splendor sans the crowds.* http://www.adventuresportsjournal.com/archives/22_destination.html. Accessed January 12, 2006.
- Busch, S.E and Smith, S.S. 1995. *Mechanisms associated with decline of woody species in riparian ecosystems of the southwestern U.S.* Ecological Monographs 65: 374-370.
- California Air Resources Board. 2005. *Rulemaking to consider proposed amendments to the area designations for state ambient air quality standards.* <http://www.arb.ca.gov/desig/desig.htm>. Published January 20, 2005.
- California Department of Conservation, Division of Land Resources Protection. 2006. *Farmland mapping and monitoring program.* <http://www.consrv.ca.gov/DLRP/fmmp/index.htm>. Accessed January 16, 2006.
- California Department of Fish and Game, Fisheries Program Branch. 2006. *California Department of Fish and Game Freshwater Fishing Guide.* <http://www.maps.dfg.ca.gov>. Accessed January 12, 2006.

- California Department of Toxic Substances Control (DTSC). 2005. *CORTEST list*.
http://www.dtsc.ca.gov/database/Calsites/Cortese_List.cfm. Accessed January 17, 2006.
- Caltrans (California Department of Transportation). 2006. *Officially designated state scenic highways and historic parkways*. http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm. Accessed January 16, 2006.
- Chen, Y., S. Parmenter, and B. May. *Introgression between Lahontan and endangered Owens tui chubs, and apparent discovery of a new tui chub in the Owens Valley, California*. *Conserv. Genet.* 8:221-238.
- Eastern Sierra Fishing. 2006. *Pleasant Valley Reservoir*.
<http://www.easternsierrafishing.com?fishing/Area-Notes-Maps/Pleasant-Valley-Reservoir.html>.
 Accessed January 12, 2006.
- Ecosystem Sciences. 2000. *Owens Gorge permanent flow recommendations (Owens River Gorge rewatering project)*. Prepared for the Los Angeles Department of Water and Power. May 2000.
- Federal Transit Administration. 1995. *Transit noise and vibration impact assessment*.
- Friedman, J.M., M.L. Scott, and W.M. Lewis Jr. 1995. *Restoration of riparian forests using irrigation, artificial disturbance, and natural seedfall*. *Environmental Management* 19(4): 547-557.
- Gladwin, D.N. and J.E. Roelle. 1998. *Survival of plains cottonwood (Populus deltoids subsp. monilifera) and saltcedar (Tamarix ramosissima) seedlings in response to flooding*. *Wetlands* 18: 669-574.
- Hickman, J. C. 1993. *The Jepson Manual: higher plants of California*. University of California Press, Berkeley, CA.
- Howe, W.H. and F.L. Knopf. 1991. *On the imminent decline of Rio Grande cottonwoods in central New Mexico*. *The Southwestern Naturalist* 36 (2): 218-224.
- Johnson, W.C., R.L. Burgess, and W.R. Keammerer. 1976. *Forest overstory vegetation and environment on the Missouri River floodplain in North Dakota*. *Ecological Monographs* 46:59-84.
- JRP Historical Consulting. 2004. *Historical resources inventory and evaluation report: Adams Auxiliary and Adams Main Powerhouses, Mono County, California*. Prepared for the City of Los Angeles Department of Water and Power.
- Los Angeles Department of Water and Power. 2006. *LADWP aqueduct system daily operations report*.
<http://wsoweb.ladwp.com/Aqueduct/operations/reservoir.htm>. Accessed January 18, 2006.
- Miller, Allan. 2006. *Personal communication* between Allan Miller, Regional Water Quality Control Board, Lake Tahoe, and Phil Lowe, Aspen Environmental Group. March 2, 2006.
- Mono County. 2006. *Mono County Online Services, Mono County Geographic Services*.
http://www.monocounty.ca.gov/body_online.htm,
<http://209.221.205.25/PublicParcelViewer/MapFrame.htm>. Accessed January 11, 2006.
- Moyle, P. B. 1976. *Inland fishes of California*. Davis, CA: University of California Press.
- Moyle, P. B. 2002. *Inland fishes of California. 2nd edition*. Davis, CA: University of California Press.
- Moyle, P. B., J. E. Williams, and E. D. Wikramanayoke. 1989. *Fish species of special concern of California*. California Department of Fish and Game. Rancho Cordova, CA.
- On The Loose. 2006. *Guide: Owens River Gorge*. http://www.on-the-loose.com/default.asp?p=guide_dest. Accessed January 12, 2006.
- Platts, W. S. and M. T. Hill. 2000. *Fish snorkel surveys, Owens River Gorge, 1999 data year*. Boise, ID.

- Platts, W. S. and M. T. Hill. 2001. *Fish snorkel surveys, Owens River Gorge, 2000 data year*. Boise, ID.
- Primosch, Larry. 2006. *Personal communication* between U.S. Department of the Interior Bureau of Land Management, Bishop Field Office, Realty Specialist Larry Primosch and Sue Walker, Aspen Environmental Group. January 12, 2006.
- Rosenburg, D.M., and V.H. Resh (eds). 1993. *Freshwater biomonitoring and benthic macroinvertebrates*. New York: Chapman and Hall.
- Sierra Web. 2006. *Crowley Lake, California*. <http://www.thesierraweb/crowley>. Accessed January 12, 2006.
- Sprenger, M.D., L.M. Smith, and J.P. Taylor. 2001. *Testing control of saltcedar seedlings using fall flooding*. *Wetlands* 21(3): 437-441.
- Superior Court of the State of California, County of Mono. 2004. *Draft injunction - stipulation for entry of final judgment and permanent injunction; order of final judgment and permanent injunction*.
- Teskey, R.O., and T.M. Hinckley. 1978. *Impact of water level changes on woody riparian and wetland communities. Vol. 1: Plant and soil responses to flooding*. USDI Fish and Wildlife Service. 30 p.
- U.S. Department of Agriculture, U.S. Forest Service, Inyo National Forest. 1988. *Inyo National Forest Land and Resource Management Plan*. 1988. As amended February 28, 1995.
- USDA Forest Service, Inyo National Forest. 2006a. *Inyo National Forest – Ranger Districts*. <http://www.fs.fed.us/r5/inyo/maps/shtml>. Accessed January 12, 2006.
- USDA Forest Service, Inyo National Forest. 2006b. *Inyo National Forest – recreation*. <http://www.fs.fed.us/r5/inyo/recreation/index.shtml>. Accessed January 12, 2006.
- U.S. Department of the Interior, Bureau of Land Management, Bishop Field Office. 2006. . Map: *Public Lands Managed by Bishop Field Office, BLM California*. <http://www.ca.blm.gov/bishop/mapbishop2.html>. Accessed January 12, 2006.
- USDI Bureau of Land Management. 2006. *U.S. Department of the Interior, Bureau of Land Management, California, Bishop Field Office. Recreation – Top Ten Points of Interest*. <http://www.ca.blm.gov/bishop/topten.html>. Accessed January 12, 2006.
- U.S. Environmental Protection Agency. 2006. *Air quality maps (attainment designations) for Region 9*. http://www.epa.gov/region09/air/maps/r9_pm10.html. Accessed January 2006.
- U.S. Fish and Wildlife Service. 1998. *Owens Basin Wetland and Aquatic Species Recovery Plan, Inyo and Mono Counties, California*. Portland, Oregon.
- Ward, J.V. 1992. *Aquatic Insect ecology, v.1: biology and habitat*. New York: John Wiley & Sons, Inc.
- Ward, J.V. and Stanford, J.A. 1995. *Ecological connectivity in alluvial river ecosystems and its disruption by flow regulation*. *Regulated Rivers: Research and Management* 11: 105-119.
- Warner, Richard E., and Hendrix, Kathleen M. 1984. *California riparian systems: ecology, conservation, and productive management*. Berkeley, CA: University of California Press.
- Western Regional Climate Center, Desert Research Institute. 2006. *Climate data summaries*. <http://www.wrcc.dri.edu/summary/climsmsca.html>. Accessed January 2006.
- Zeiner, D.C., W.F. Laudenslayer, Jr., and K.E. Mayer, (eds). 1988. *California's wildlife, volume i, amphibians and reptiles*. Sacramento, CA: State of California, The Resources Agency, Department of Fish and Game. 272 pp.

5. Report Preparation

Table 4. List of Preparers and Reviewers

Name/Organization	Project Role
Los Angeles Department of Water and Power	
Irene Paul	Project Manager
Kelvin Lew	Former Project Manager
Charles Holloway	Manager, Environmental Planning and Assessment
Aspen Environmental Group	
Sue Walker	Task Order Manager, Project Description, Land Use, Recreation, Mandatory Findings of Significance
Phil Lowe	Project Description, Hydrology and Water Quality
Jeff Shelton	Hydrology and Water Quality
Brewster Birdsall	Air Quality, Noise, Transportation and Traffic
Scott Debauche	Aesthetics, Agricultural Resources, Geology and Soils, Hazards and Hazardous Materials, Mineral Resources, Population and Housing, Public Services, Utilities and Service Systems
Leigh Hagan	Assistant to Task Order Manager
Chris Huntley	Biological Resources
ECORP Consulting, Inc.	
Roger Mason	Cultural and Paleontological Resources
ICF Jones & Stokes	
Charles Smith	Project Director
Ken Casaday	Project Manager
Mari Piantka	Assistant Project Manager
Jeff Kozlowski	Biological Resources
Bill Mitchell	Biological Resources
Mussetter Engineering	
Michael Harvey, PE, RG	Geomorphology