Attachment 3

Stormwater Flood Management Grant Proposal
Littlerock Reservoir Sediment Removal Project
Work Plan

Attachment 3 consists of the following items:

- ✓ **Work Plan.** Attachment 3 contains detailed information regarding the tasks that were and will be performed for the proposed project.

Introduction

Background

The Littlerock Reservoir Sediment Removal (LRSR) Project is proposed by Palmdale Water District (PWD) in partnership with the Angeles National Forest (ANF), U.S. Department of Agriculture Forest Service (USFS) and Littlerock Creek Irrigation District (LCID). Since 1922, PWD has shared water from the Littlerock Reservoir (Reservoir) with LCID. PWD and LCID jointly hold long-standing water rights to divert 5,500 AFY from Littlerock Creek flows per an agreement between the two districts. LCID has not exercised its right to surface water diversions since 1994.[1]

The Reservoir is a man-made feature formed by the impoundment of water by the Littlerock Dam, constructed in 1924. The Reservoir serves as a source of water supply storage, provides flood protection and debris control for downstream areas, provides habitat for endangered species, and serves as a recreational use area. Littlerock Creek, which supplies water to the Reservoir, is a perennial stream supported by annual rainfall and snowmelt from the nearby slope of Mount Williamson. Inflow to Littlerock Reservoir is seasonal and varies widely from year to year depending on stream flows and snow melt from the ANF. An average dry year can yield approximately 3,500 acre-feet per year (AFY) of water supply from the Reservoir. Currently, PWD is authorized to divert approximately 5,500 AFY of water.

The initial design capacity[2] of the Reservoir was 4,300 acre-feet (AF); however, this capacity has been substantially reduced over time by the deposition of sediment behind Littlerock Dam. By 1991, the capacity of the Reservoir had been reduced to approximately 1,600 AF. As a result, in 1992 the height of Littlerock Dam was raised to increase the Reservoir capacity by approximately 1,723 AF. The current Reservoir storage capacity is estimated at 2,765 AF (see Attachment 7). As average seasonal inflow to the Reservoir is approximately 3,500 AFY, flows during winter rainy seasons quickly fill the Reservoir and overtop Littlerock Dam. Calculations conducted by PWD indicate the Reservoir capacity is further reduced by siltation at an annual rate of approximately 54,000 cubic yards of sediment amounting to a loss of approximately 35 AFY of water[3].

[1] *Diversions from Littlerock Reservoir*, PWD, August 2012.
[2] Woodward-Clyde, 1992. *Littlerock Dam and Reservoir Restoration Project Feasibility Report*. September 1992.
[3] Aspen Environmental Group. 2012. *DRAFT Littlerock Reservoir Sediment Removal Project Description of Proposed Action*. June 2012.

Description

The LRSR Project proposes to restore the capacity of the reservoir to 3,325 AF through removal of 900,000 net cubic yards (equivalent to 560 AF) of accumulated sediment behind the Littlerock Dam. In addition, the LRSR Project proposes to construct a grade control structure that will prevent sediment loss and headcutting upstream of the Reservoir beyond Rocky Point to protect and preserve habitat for the federally endangered arroyo toad.

PWD intends to partner with the USFS to ensure that the proposed LRSR Project considers downstream stakeholders and focuses on developing methods to ensure that the National Forest System Lands within the Antelope Valley Watershed are sustainably maintained and continue to provide high quality water for all beneficial uses. These factors illustrate the forests' vital significance to the overall health of the water resources within the watershed. The LRSR Project would contribute to the overall health and sustainability of the Antelope Valley Watershed by increasing water supply capacity, reducing sediment accumulation, reducing flood damages, preserving endangered species habitat, and ensuring a potable water source with optimum water quality. PWD and the USFS have entered into a Memorandum of Understanding that is the first step in integrating forest management practices with interests of downstream water users (a copy of the MOU is included at the end of this attachment).

Water Supply

Littlerock Reservoir is a critical water supply asset for PWD. Approximately 60 percent of potable water supply for PWD's customers comes from imported and local surface water. Surface water supplies are primarily made up of State Water Project (SWP) and supplemented with local surface water from the Reservoir. Surface water from the Reservoir is conveyed through an 8.5-mile ditch to Palmdale Lake and eventually treated at PWD's 35-mgd water treatment plant for potable use. However, with the increasing variability of SWP deliveries, PWD has been relying more on the Reservoir to supplement water demands. This Project will offset imported water supplies from the SWP, improve local surface water quality, and reduce treatment needs for water supply. The removal of 900,000 net cubic yards of sediment (as described under the **Flood Control** section below) would increase the Reservoir capacity to a minimum total of 3,325 AF and provide an additional 560 AF of storage capacity that could be delivered as potable supply to customers each year.

Flood Control

The Project will restore debris control and flood peak attenuation capability provided by Littlerock Dam and Reservoir (shown in Figure 3-1) by removing 900,000 net cubic yards of sediment to achieve a capacity of 3,325 AF. Estimates show that approximately 54,000 cubic yards of sediment are deposited into the Reservoir annually from seasonal inflow. The project would remove a minimum of 900,000 net cubic yards of sediment during a 5-year closure of the Reservoir. The LRSR Project would increase the flood control capacity at the Reservoir by a minimum of 560 AF.

Figure 3-1: Littlerock Dam

Source: http://www.littlerockdam.org/

Flood Insurance Rate Maps (FIRM)[4] for the community of Palmdale indicate that downstream communities are situated on the alluvial floodplain of the Antelope Valley. Consequently, the type of flooding experienced is typical of that experienced by communities developed on alluvial fans. Flood flows discharge from the mountainous canyons onto the desert floor, where, due to the lack of well-incised streambeds, it spreads out in uncontrolled patterns. Flood discharges have overflowed in normally dry streambeds, resulting in heavy damage as floodwaters pass through developed areas. During the period of comparatively recent record, floods of major proportions have occurred. The office of the Los Angeles County Engineer has identified the areas in which moderate to severe flooding was observed during the heavy storms of 1938, 1965, 1969, 1978, 1980, 1983, 1994 on flood overflow maps. Flooding from Little Rock Creek was experienced in the eastern portion of the city. During these floods, widespread damage to orchards, irrigation systems, buildings, and roads occurred.[5]

Water Quality

State Water Project (SWP) water supplies used by PWD contain total dissolved solids (TDS) or salts. When imported water is used in the Antelope Valley watershed, those salts, nutrients, and other constituents remain in the watershed. By avoiding SWP water imports, the use of Littlerock Creek water effectively avoids importing salts to the Antelope Valley. This is a key concern in the ongoing development of a Salt and Nutrient Management Plan for the Valley.

[4] Flood Insurance Rate Maps (FIRM), Community: Palmdale, City/Los Angeles CO, Panel #'s: 06037C0694F, 06037C0711F, 06037C0442F, and 06037C0450F. Effective Date: September 26, 2008.

[5] Flood Insurance Rate Maps (FIRM), Community: Palmdale, City/Los Angeles CO, Panel #'s: 06037C0694F, 06037C0711F, 06037C0442F, and 06037C0450F. Effective Date: September 26, 2008.

SWP water also contains higher levels of bromide, both of which are of concern in drinking water. Bromide combines with chemicals used in the water treatment process to form disinfection byproducts (DBPs) such as trihalomethanes (THMs) that are strictly regulated under the Federal Safe Drinking Water Act. PWD treats all its water to meet stringent state and federal drinking water standards before delivering it to its customers. However, source water of lower quality will make it increasingly expensive and difficult to meet such standards. Increased levels of constituents that could aid in the formation of THMs can mean more time spent monitoring treated water in the distribution systems and may lead to the use of increased proportions of blend water supplies in order to control THMs. The LRSR Project would offset the demand for SWP Imported water with local surface water supply that contains less bromide.

Protection of Local Habitat and Wildlife

Littlerock Creek, which feeds the Reservoir, provides habitat for the federally endangered arroyo toad (*Bufo californicus*), shown in Figure 3-2. Previous plans for sediment removal from the Reservoir posed potential risks for "take" of arroyo toad and degradation of arroyo toad habitat upstream of the Reservoir beyond the Rocky Point area. The LRSR project proposes to construct a soil cement grade control structure at Rocky Point to prevent sediment loss and headcutting of the stream channel upstream of Rocky Point. This grade control structure will minimize the degradation of critical habitat for and incidental "take" of the federally-endangered arroyo toad. In addition, the grade control structure would act as a barrier between human activities (i.e., recreation activities, sediment removal activities, etc.) within the Reservoir and the arroyo toad's habitat upstream of Rocky Point. Protection of the arroyo toad is also consistent with USFS Strategy WL 1 (Threatened, Endangered, Proposed, Candidate, and Sensitive Species Management) which is a standard practice advocated by USFS.

Figure 3-2: Arroyo Toad (*Bufo californicus*)

Source: Chris Brown

The grade control structure design would consist of a permanent structure of soil cement and would be constructed as a cascading (i.e., stair-step) structure with a series of steep drops of approximately 4-feet each with 15-foot horizontal aprons downstream of each drop, extending to a total depth of up to 70 feet below the existing ground surface. The structure would be constructed below grade, and once backfilled, only the top or upper lip of the structure would be visible when the Reservoir water level is lowered. When the Reservoir is full it would contain water beyond the Rocky Point area and any portion of the grade control structure at the Reservoir bottom grade would be submerged and not visible.

Energy and Greenhouse Gas Emissions

By offsetting imported water demands with local surface water, the proposed Project would reduce energy consumption and greenhouse gas (GHG) emissions generated by transporting and treating imported SWP water to southern California. The long-distance transport of water in conveyance systems consumes a significant portion of California's total electricity demand. The SWP, is the largest consumer of electrical energy in the California, requiring an average of 5 billion kWh per year (2 to 3 percent of all electricity consumed in California)[6], and contributes 0.6% of California's total GHG emissions. [7] By offsetting the demand of 560 AF of imported SWP water, the proposed Project will reduce energy consumption and reduce emissions of CO_2 equivalents.

Project Partners

The PWD is the lead implementing agency and CEQA agency for the LRSR Project. In addition, the following partners are participating in the Project:

- USFS, ANF – is an agency of the U.S. Department of Agriculture and manages public lands in national forests and grasslands; serves as the land manager, the NEPA lead agency, and the agency responsible for issuing a Special Use Authorization for the LRSR Project.

- LCID – LCID's service area comprises of approximately 17 square miles within the southeastern region of the Antelope Valley. LCID receives raw water from SWP, local surface water from Littlerock Reservoir and pumps groundwater. LCID participates in a joint use agreement with PWD for shared use of the Littlerock Dam for treated water (copy of LCID support letter is included at the end of this attachment).

Goals and Objectives

The goals of the Project are to (1) restore the ability of PWD to store potable water supply in the Reservoir, (2) offset less reliable imported water supplies with more reliable local water supplies to help reduce reliance through Delta water transfers from the SWP, (3) provide debris control and peak flood attenuation at Littlerock Dam, (4) preserve habitat for federally endangered species, (5) improve water quality for PWD customers, (6) decrease the introduction of imported salts into the Antelope Valley, (7) reduce energy consumption, (8) reduce greenhouse gas emissions.

The specific objectives the Project seeks to achieve are:

- Restore the ability of PWD to store potable supply water in the Reservoir and offset imported supplies by removing 900,000 net cubic yards (560 AF) of accumulated silt starting in the year 2019.
- Maintain the level of debris control and flood peak attenuation provided by Littlerock Dam and Reservoir by removing 900,000 net cubic yards (560 AF) of accumulated silt starting in the year 2019.

[6] Natural Resources Defenses Council (NRDC). 2004. Energy Down The Drain – The Hidden Costs of California's Water Supply. August 2004. Available: http://www.circleofblue.org/waternews/wp-content/uploads/2010/08/energy_down_the_drain.pdf

[7] Snow, Lester A. Department of Water Resources addressed to Senator Don Perata. April 2007.

- Preserve habitat for the federally endangered arroyo toad, and incidental "take" of the arroyo toad, by constructing a grade control structure to prevent sediment loss and headcutting of the stream channel upstream of Rocky Point starting in the year 2016.
- Decrease the amount of imported Total Dissolved Solids (TDS) introduced into the Antelope Valley by offsetting 560 AFY of imported water (contains a TDS loading that did not originate in the Antelope Valley) starting in the year 2019.
- Improve water quality for the constituent bromide (which contributes to the creation of DBPs) by replacing lower quality imported water with higher quality local surface water starting in the year 2019.
- Reduce energy consumption by offsetting 560 AFY of water imported from the SWP.
- Reduce greenhouse gas emissions by offsetting 560 AFY of water imported from the SWP.

IRWM Plan Consistency

PWD adopted the Antelope Valley 2007 IRWM Plan in 2007 and is an active participant in the Antelope Valley 2013 IRWM Plan update. The LRSR Project is one of the identified high priority projects in the Antelope Valley 2007 IRWM Plan, Section 7 that will aid in meeting the IRWM Region's goals and objectives. Table 3-1 highlights the Antelope Valley's 2007 IRWM Plan goals along with the respective objectives designed to achieve these goals.

Table 3-1: Antelope Valley IRWM Plan Goals and Objectives

IRWM Plan Objective		Primary IRWM Plan Goals Implemented by Objective		
		Goal 1: Municipal and industrial (M&I) purveyors reliably provide the quantity and the quality of water that will be demanded by a growing population	Goal 2: Satisfy agricultural users' demand for reliable irrigation water supplies at a reasonable cost	Goal 3: Protect and enhance current water resources (including groundwater) and the other environmental resources within the Antelope Valley Region
A	Provide reliable water supply to meet the Antelope Valley Region's expected demand between now and 2035	●	●	
B	Establish a contingency plan to meet water supply needs of the Antelope Valley Region during a plausible disruption of SWP water deliveries	●	●	
C	Stabilize groundwater levels at current conditions		●	●
D	Provide drinking water that meets customer expectations	●		
E	Protect aquifer from contamination	●		●
F	Protect natural streams and recharge areas from contamination	●		●
G	Maximize beneficial use of recycled water	●		
H	Reduce negative impacts of stormwater, urban runoff, and nuisance water			●
I	Preserve open space and natural habitats that protect and enhance water resources and species in the Antelope Valley Region			●
J	Maintain agricultural land use within the Antelope Valley Region		●	●
K	Meet growing demand for recreational space			●
L	Improve integrated land use planning to support water management	●		●

● IRWM Plan goal targeted by Plan objective

The LRSR Project will be consistent with six of twelve Antelope Valley IRWM Plan objectives. Table 3-2 below provides an overview of the Antelope Valley IRWM Plan objectives that are expected to be directly (●) achieved through implementation of the project.

Table 3-2: Contribution to IRWM Plan Objectives

Proposal Projects	Contribution to IRWM Plan Objectives											
	A	B	C	D	E	F	G	H	I	J	K	L
Littlerock Reservoir Sediment Removal Project	●	●		●		●		●	●			

● achieved through implementation of the Project

This project contributes to the Antelope Valley IRWM Plan objectives in the following ways:

- **Objective A** – *Provide a reliable water supply to meet the Antelope Valley Region's expected demand between now and 2035*: by sediment removal behind Littlerock Dam which would increase the local surface water storage capacity at the Reservoir aiding the region in meeting its water supply needs.
- **Objective B** – *Establish a contingency plan to meet water supply needs of the Antelope Valley Region during a plausible disruption of SWP water deliveries*: by restoring the water storage capacity of the Reservoir and continue providing a reliable stream of water supply if future SWP disruptions occur.
- **Objective D** – *Provide drinking water that meets customer expectations*: by offsetting imported water supplies with local water supplies. SWP imported water contains a higher concentration of bromide, a disinfection byproduct (DBP) precursor, compared to local surface water.
- **Objective F** – *Protection of natural streams and recharge areas from contamination*: by constructing a grade control structure to minimize sediment loss and headcutting of the Littlerock Creek stream channel.
- **Objective H** – *Reduce negative impacts of stormwater, urban runoff, and nuisance water*: by restoring the capacity for flood control at the Reservoir to prevent downstream flooding.
- **Objective I** – *Preserve open space and natural habitats that protect and enhance water resources and species in the Antelope Valley Region*: by constructing a grade control structure to prevent headcutting and sediment removal in the upstream channel helping to preserve critical habitat for the federally endangered arroyo toad.

Purpose and Need

The LRSR Project is needed to help the Region offset SWP water with local water supplies. Restoring water storage capacity of the Reservoir by removing accumulated sediment would allow PWD to increase water storage capacity while maintaining flood protection.

The purpose of the LRSR Project is to restore surface water storage capacity at Littlerock Reservoir through sediment removal, restore flood control capacity, prevent degradation of the federally endangered arroyo toad critical habitat and incidental "take" of the arroyo toad, improve water quality of drinking water for PWD customers, and reduce energy consumption and GHG emissions.

Project Specifics

Table 3-3 provides an abstract of the proposed project, the current status of the project, implementing agency, the site specific geographic location, and the project's stormwater component, and its relation to the State Plan Flood Control.

Table 3-3: LRSR Project Specifics

Project	Description	
Littlerock Reservoir Sedimentation Removal Project	*Abstract:*	The Littlerock Reservoir Sediment Removal Project will remove 900,000 net cubic yards of sediment that has accumulated from runoff behind Littlerock Dam. The Project will also include a grade control structure that will protect the identified critical habitat of the federally-endangered arroyo toad. The project is expected to increase the flood control and water storage capacity, and reliability of surface water storage in Littlerock Reservoir.
	Status:	Pre-Design Phase
	Implementing Agency:	Palmdale Water District
	Location:	The project is located ten miles southeast of the City of Palmdale and four miles south of the Littlerock Community within the Antelope Valley IRWM boundary.
	Storm water Conveyance:	The project will increase capacity for flood control at the Reservoir through the removal of sediment behind the Littlerock Dam.
	State Plan for Flood Control:	The project is not part of the State-federal flood protection system (SPFC) in the Central Valley.

Integrated Elements of Project

This Project will be integrated with two other planned projects in the Littlerock Creek floodplain:

- *Littlerock Creek In-River Spreading Grounds* - Led by the Los Angeles County Department of Public Works and County Supervisorial District 5, this project proposes to develop a spreading ground facility in Littlerock Creek near the San Gabriel Mountain foothills in order to increase groundwater recharge. The facility will include earthen levees in and adjacent to the creek to capture and recharge stormwater from the creek into the groundwater basin. The design phase and environmental documents could be completed in approximately 16 months and the construction phase would follow in approximately 12 months. The preliminary cost estimate is $4 million and the County is seeking partnerships with local agencies. This project would be located downstream from the LRSR Project and is integrated with the LRSR Project due to the shared objectives of increasing local surface water supplies, water supply reliability, flood protection, and water quality in the Region.

- *Littlerock Creek Groundwater Recharge and Recovery Project (LCGRRP)* - Led by PWD, the LCGRRP is the largest of four recharge projects included in PWD's 2010 Strategic Water Resources Plan. It proposes to construct off-channel basins and in-stream recharge facilities to recharge approximately 43,000 AFY; it also includes an adjacent wellfield to recover approximately 14,000 AFY. Sources of recharge water include imported, stormwater, and eventually recycled water. Imported water would be conveyed from the California Aqueduct for recharge when available. This project would be located downstream from the LRSR Project and is integrated with the LRSR Project due to the shared objectives of increasing local surface water supplies, water supply reliability, flood protection, and water quality in the Region.
- *USFS Forest Management Program* – Though not included in the LRSR Project at this time, PWD intends to partner with the USFS in the future to implement forest management practices that consider downstream stakeholders and focus on developing methods to ensure that the National Forest System Lands within Antelope Valley Watershed are sustainably maintained and continue to provide high quality water for all beneficial uses. These factors illustrate the forests' vital significance to the overall health of the water resources within the watershed. The LRSR Project would contribute to the overall health and sustainability of the Antelope Valley Watershed by increasing water supply capacity, reducing sediment accumulation, reducing flood damages, preserving endangered species habitat, and ensuring a potable water source with optimum water quality. PWD and the USFS have entered into a Memorandum of Understanding that is the first step in integrating forest management practices with interests of downstream water users.

Completed Work

Work that has not yet been completed but is expected to be completed prior to the grant award date includes:

- CEQA Notice of Preparation (NOP) of an EIR
- NEPA Notice of Intent (NOI) to prepare an EIS
- Excavation Plans
- Conceptual Design Plans

Existing Data and Studies

Several studies have been prepared in support of this project's site location, feasibility and technical methods. These include:

- *DRAFT Littlerock Reservoir Sediment Removal Project Biological Resources Technical Report* was prepared by Aspen Environmental Group in October 2012. The Biological Technical Report serves as the basis for: the environmental analysis of biological resources in the EIR/EIS; and the federally required Biological Assessment and subsequent Biological Opinion of the U.S. Fish and Wildlife Service (see Appendix A).

- *DRAFT Littlerock Reservoir Sediment Removal Project 1st Administrative Environmental Impact Report/Environmental Impact Statement (EIR/EIS)* was prepared by Aspen Environmental Group in April 2007. The finalized EIR will be available by June 2014.

- *Geotechnical Investigation, Data Collection, and Survey Memoranda* was prepared by Aspen Environmental Group in July 2007. The memorandum addresses the proposed grade control structure and the following components: geotechnical investigation, survey and topography, excavation grading plan, grade control materials and location, and grade control concept details (see Appendix B).

- *Preliminary Dredging/Slurry Feasibility Analysis for Excavation of Littlerock Reservoir* was prepared by Aspen Environmental Group in September 2007. The study presents a preliminary dredging/slurry feasibility analysis to provide a brief overview of the general feasibility and cost of excavating the Littlerock Reservoir using a dredge and slurry operation. This preliminary evaluation was done as an early decision-making tool for slurry excavation versus truck excavation.

- *Littlerock Reservoir Hydrologic and Sediment Transport Analysis Technical Report* was prepared by Aspen Environmental Group in June 2005. The Hydrologic and Sediment Transport Analysis Technical Report establishes the need for the project by describing the rate of sediment accumulation at the reservoir and the need for its removal to restore capacity (see Appendix C).

Project Timing and Phasing

The LRSR Project is not part of a multi-phased project. The LRSR Project will commence Project Administration tasks once the grant funding agreement between PWD and the State of California, DWR has been signed. Project construction is scheduled to begin in the 4th quarter of 2015 (October 2015) and end by the 4th quarter of 2019 (October 2019). See Attachment 5 Schedule for a detailed project schedule.

Project Maps

The Littlerock Reservoir is located on Littlerock Creek in the northeastern foothills of the San Gabriel Mountains on the western edge of the Mojave Desert, within the boundaries of the Santa Clara Mojave Rivers Ranger District of the ANF of the City of Palmdale and four miles south of the community of Littlerock in the northern Los Angeles County area. Figure 3-3 illustrates the regional vicinity and the project site location. Figure 3-4 provides a closer look at the project site. Figure 3-5 provides an illustration of the proposed grade control structure. Figure 3-6 is a side profile illustration of the grade control structure. Figure 3-7 provides a visual simulation of the surface grade control structure. Figure 3-8 highlights the project construction zones at and around Littlerock Reservoir. Figure 3-9 outlines the canyon boundary that will be used to dispose of the sediment removed from Littlerock Creek Reservoir.

Figure 3-3: Project Location Map

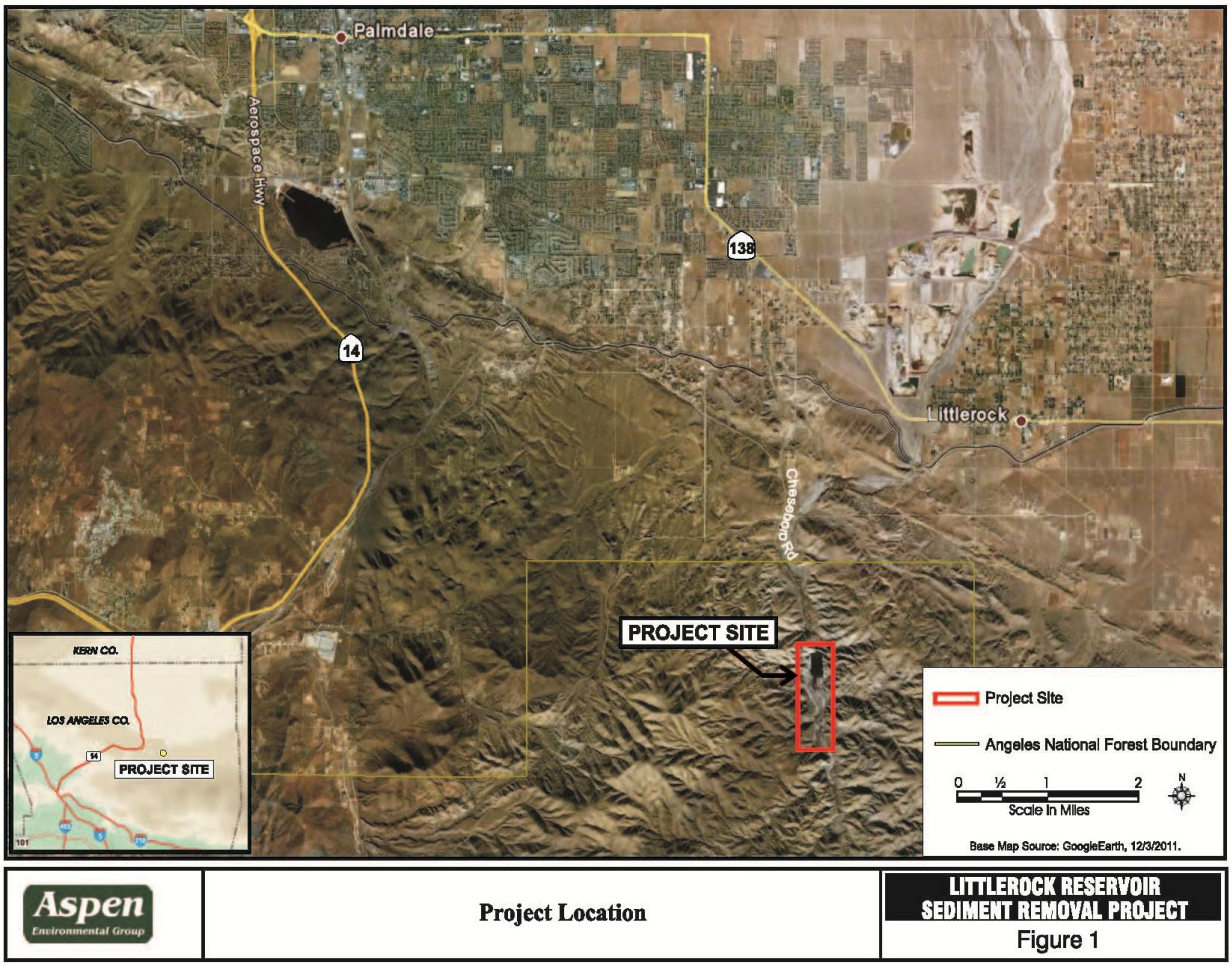

Figure 3-4: Project Site Map

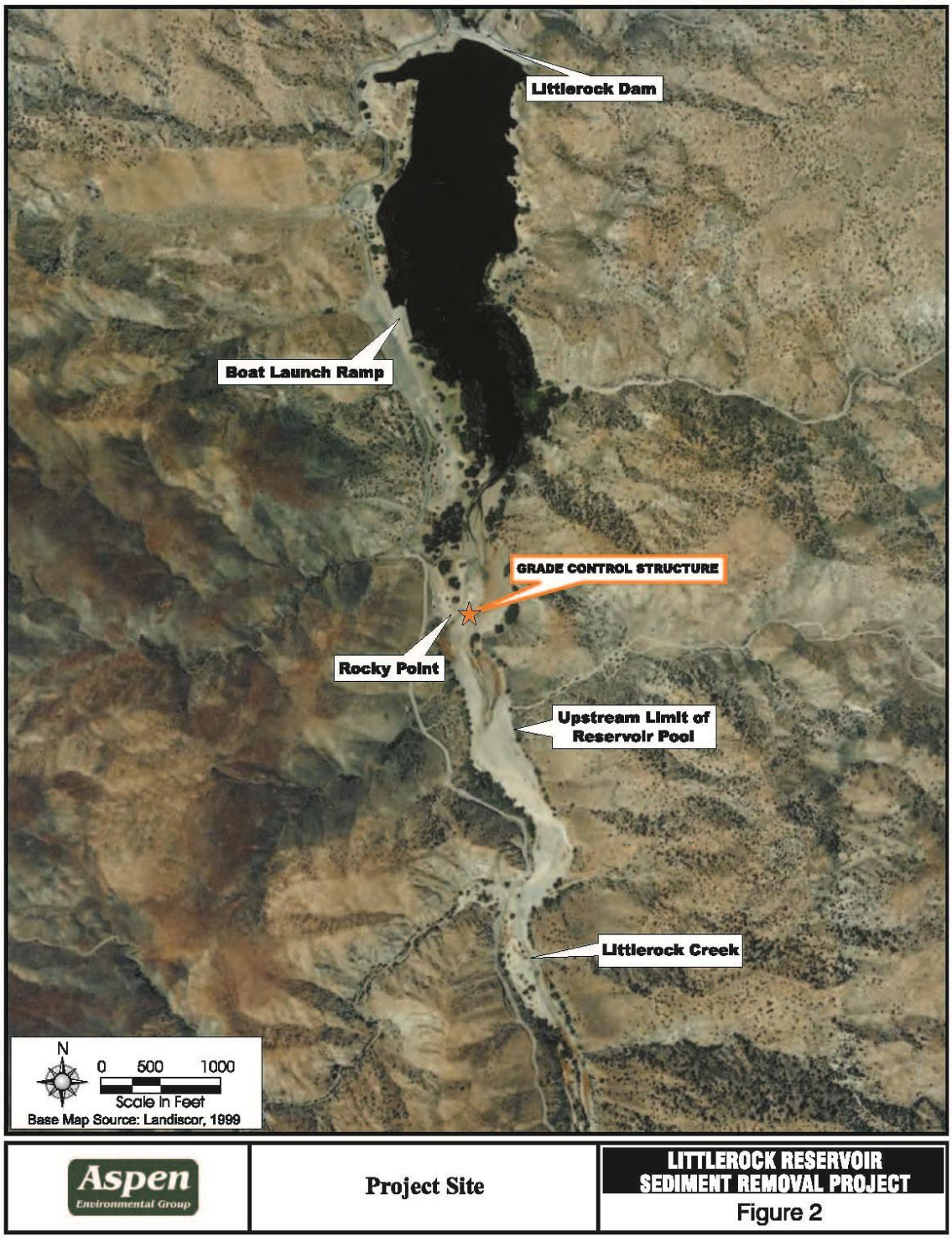

Figure 3-5: Grade Control Structure Plan

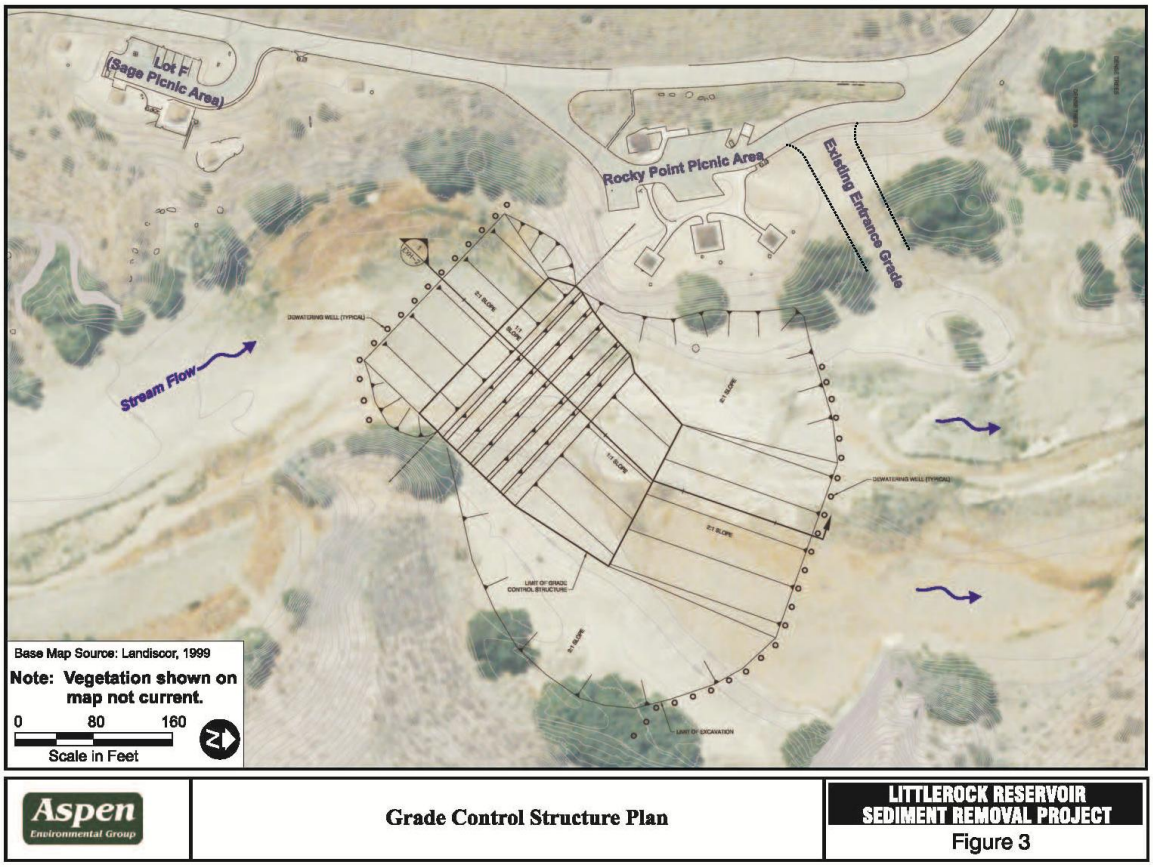

Figure 3-6: Grade Control Structure Profile

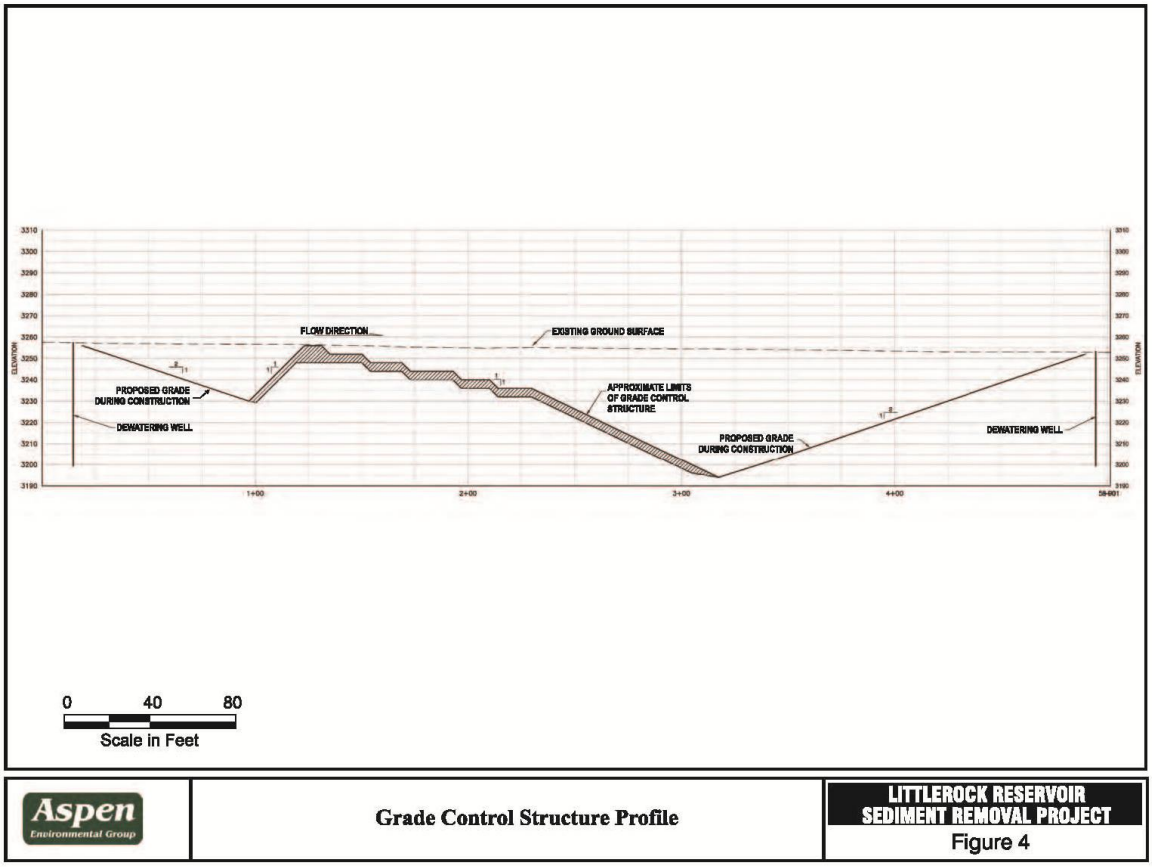

Figure 3-7: Grade Control Structure Surface Visual Simulation

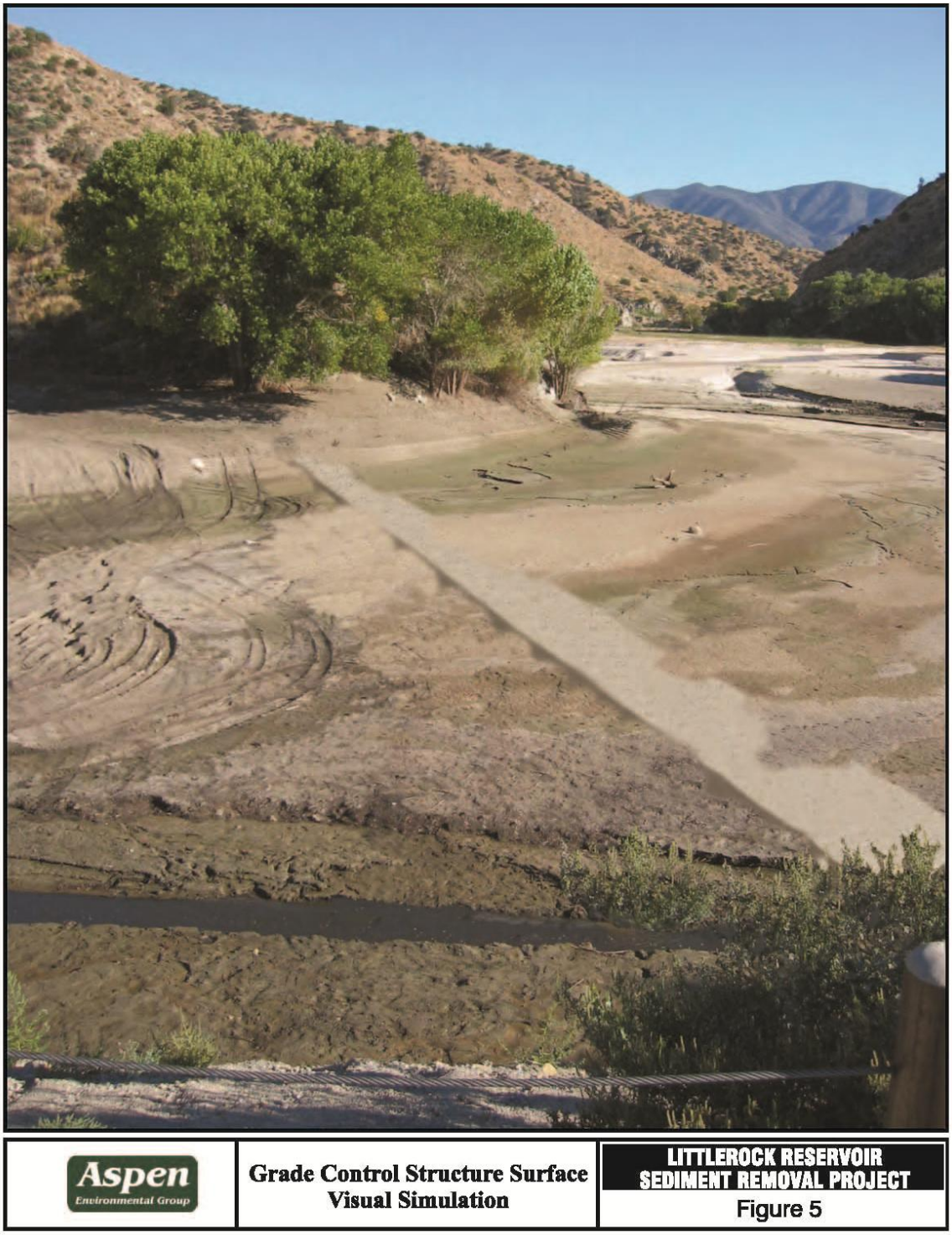

Figure 3-8: Project Construction Areas

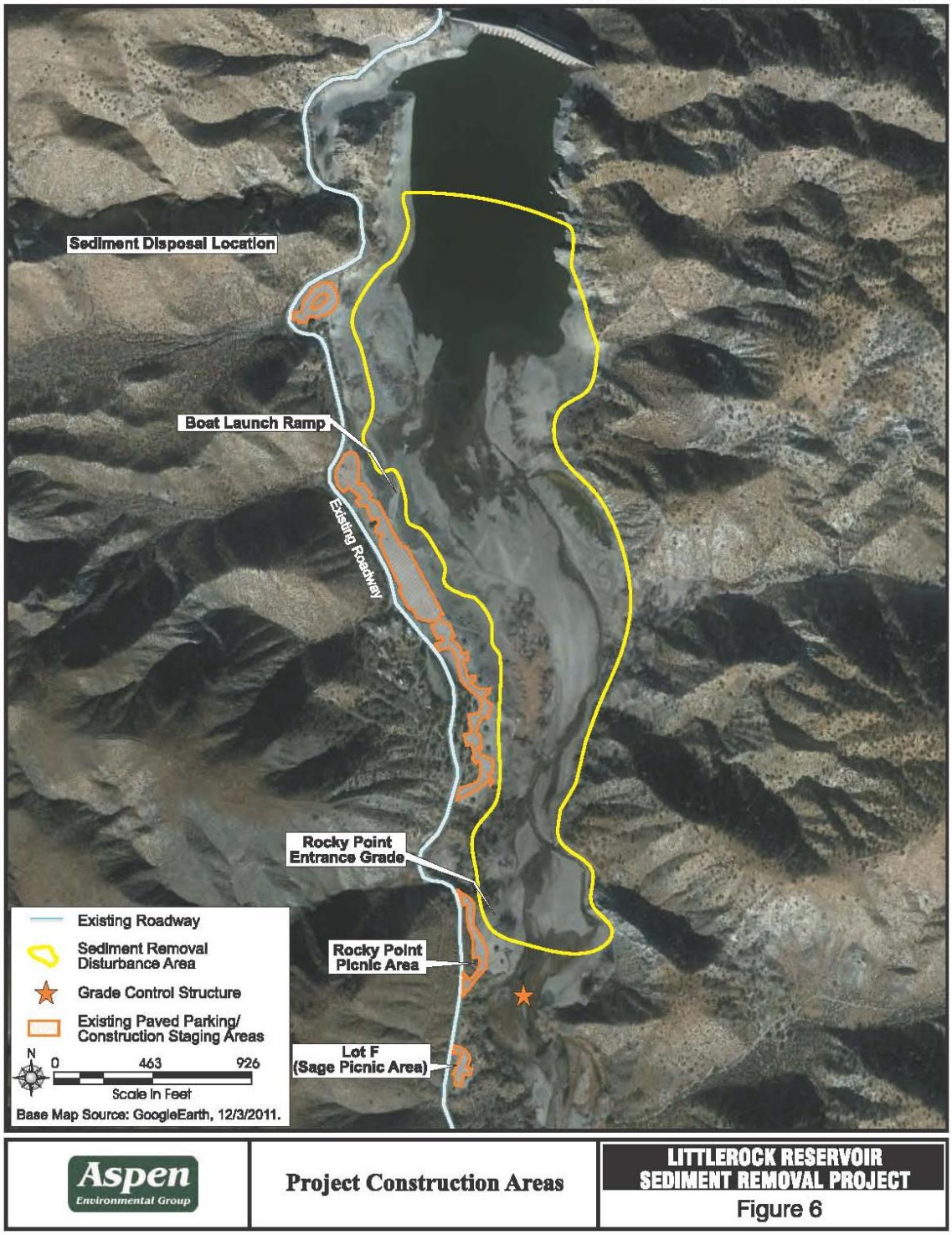

Figure 3-9: Sediment Disposal Location

Proposed Work

The following sections discuss work items necessary for implementation of the project. The work items are divided into each of the six primary budget categories and associated tasks as shown on Table 4, page 29, of the Proposition 1E, Round 2 Stormwater Flood Management Grant PSP. Work is divided into tasks completed before the grant award date (before August 15, 2013) and after the grant award date (after August 15, 2013).

(a) Direct Project Administration Costs

Task 1: Project Administration

Work to be completed under this task will be performed by a PWD project manager, engineering manager, engineering technician, and construction inspector. The project administration tasks will consist of a development of project management plan, administration of grant and construction contracts, preparation of invoices, reports, and plans, coordination of design contract, and other administrative

activities required manage the project. The project manager will also be responsible for managing all project related financing to ensure all grant contract requirements are met.

PWD and the USFS finalized on December 15, 2011 a Category 6 major Cost Recovery Agreement (CRA). The CRA provides the terms and dollar amount through which PWD would pay monies to the USFS to reimburse them for processing the LRSR Project Special Use Authorization application. This was followed by a Memorandum of Understanding (MOU) between PWD and the USFS, Pacific Southwest Region, ANF executed on July 26, 2012 to collaborate on the LRSR project. Copies of the CRA and MOU are included at the end of this attachment.

Project Administration Activities or Deliverables	Completion Schedule	Status	Completion	
			Before Aug 2013	After Aug 2013
Cost Recovery Agreement (CRA)	December 2011	Completed	✓	
Memorandum of Understanding (MOU)	July 2012	Completed	✓	
Project Administration	Quarterly after Aug 15, 2013	Not yet begun		✓
Development of Financing	August 2013 – February 2015	Not yet begun		✓
Development of a Project Management Plan	August 2013 – October 2013	Not yet begun		✓

Task 2: Labor Compliance Program

PWD will hire Golden State Labor Compliance, LLC or a similar approved third party labor compliance program provider by the California Department of Industrial Relations throughout the project implementation. Upon grant award notification PWD will register with the Department of Industrial Relations Compliance Monitoring Unit as required by AB 436 to monitor and enforce prevailing wage requirements for this public works project.

Labor Compliance Program Activities or Deliverables	Completion Schedule	Status	Completion	
			Before Aug 2013	After Aug 2013
Labor Compliance Program	August 2013 – October 2019	Not yet begun	✓	
Compliance Monitoring Unit Registration	August 2013	Not yet begun		✓

Task 3: Reporting

The PWD project manager and supporting staff will prepare and submit quarterly progress reports and invoices to the granting agency (DWR). The progress reports will describe activities undertaken and accomplishments of each task when milestones are achieved and when any problems are encountered in the performance of the work. A final project report will be prepared per grant requirements and submitted

to the granting agency within ninety calendar days of the project completion. Post-completion reports will be submitted to the state within ninety calendar days after the first operations year of the project for a total of 10 years after the project has been completed.

Upon grant award notification, PWD will enter into a contract agreement regarding compliance with Stormwater Flood Management Grant Program requirements and terms of reimbursement payments with the State of California. The contract agreement between PWD and the State of California is anticipated to be finalized by August 15 2013. The table below contains a detailed list of all the reporting submittals PWD will make to the granting agency (State of California).

Reporting Activities or Deliverables	Schedule	Status	Completion	
			Before Aug 2013	After Aug 2013
Contract Agreement between PWD and the State of California	August 2013 – November 2013	Not yet begun		✓
Quarterly Invoices and Progress Reports	Quarterly after August 15, 2013	Not yet begun		✓
Final Project Report	Completed by February 2020	Not yet begun		✓
Post-Completion Reports	Annually for 10 yrs from project construction completion date, starting October 2020	Not yet begun		✓

(b) Land Purchase/Easement

The LRSR Project will not require purchase of land or acquisition of right-of-ways. PWD has received a special use permit from the USFS authorizing PWD to use National Forest System lands to operate the dam. A copy of the most recent special use permit dated December 1997 is included in Appendix D.

(c) Planning/Design/Engineering/Environmental Documentation

Task 4: Assessment and Evaluation

Assessment and evaluation activities have already been completed (see Existing Data and Studies for detailed information), and include:

- *DRAFT Littlerock Reservoir Sediment Removal Project Biological Resources Technical Report* was prepared by Aspen Environmental Group in October 2012.
- *Geotechnical Investigation, Data Collection, and Survey Memoranda* was prepared by Aspen Environmental Group in July 2007.
- *Feasibility Study* was prepared by Aspen Environmental Group in September 2007.
- *DRAFT Littlerock Reservoir Hydrologic and Sediment Transport Analysis Technical Report* was prepared by Aspen Environmental Group in June 2005

Assessment and evaluation activities that will be completed for the project include:

- A final biological technical report will be completed in September 2013. The report will serve as the basis for the environmental analysis of biological resources in the EIR/EIS and the federally required biological assessment and subsequent biological opinion of the U.S. Fish and Wildlife Service for the project.
- An updated hydrological and sediment transport analysis technical report, from the one completed in June 2005, will be done by September 2013.
- Updated Topographic Mapping will be completed by September 2013.

Assessment and Evaluation Activities or Deliverables	Schedule	Status	Completion	
			Before Aug 2013	After Aug 2013
DRAFT Littlerock Reservoir Sediment Removal Project Biological Resources Technical Report	October 2012	Completed	✓	
Geotechnical Investigation, Data Collection, and Survey Memoranda	July 2007	Completed	✓	
Feasibility Study	September 2007	Completed	✓	
DRAFT Littlerock Reservoir Hydrologic and Sediment Transport Analysis Technical Report	June 2005	Completed	✓	
Final Biological Technical Report	July 2012 - September 2013	Underway		✓
Final Hydrological and Sediment Transport Analysis Technical Report	July 2005 - September 2013	Underway		✓
Updated Topographic Mapping	July 2012 - September 2013	Underway		✓

Task 5: Project Design

A final excavation plan will be completed by May 2013 to document the rate of siltation and the sediment removal locations based on updated topographical mapping. A conceptual design plan will be completed by April 2013 for the grade control structure, which will include a finalized list of the construction materials needed and location specifications. The conceptual design plan will use information from the excavation plan to finalize the grade control structure general design specifications. The final design plan is scheduled to be completed by January 2014.

Project Design Activities or Deliverables	Schedule	Status	Completion	
			Before Aug 2013	After Aug 2013
Excavation Plan	March- May 2013	Not yet started	✓	
Conceptual Design Plan	February – April 2013	Not yet started	✓	
30% Design	May – July 2013	Not yet started		✓
60% Design	July – September 2013	Not yet started		✓
90% Design	September – November 2013	Not yet started		✓
Final (100%) Design Plans	November –January 2014	Not yet started		✓

Task 6: Environmental Documentation

The LRSR Project requires compliance with the California Environmental Quality Act (CEQA) as part of the environmental review process. A Notice of Preparation (NOP) - EIR/EIS will be sent out to interested agencies, organizations and individuals to notify the preparation of environmental documents in accordance with the CEQA for the LRSR project in February 2013. Preparation of the Draft EIR /EID will begin in October 2013, followed by the preparation of a final EIR/EIS to be completed by June 2014.

Environmental Documentation Activity or Deliverable	Schedule	Status	Completion	
			Before Aug 2013	After Aug 2013
NOP – EIR/EIS	February 2013	Not yet begun	✓	
Draft EIR/EIS	October – December 2013	Not yet begun		✓
Final EIR/EIS	April – June 2014	Not yet begun		✓

Task 7: Permitting

The following permits will be required for the LRSR project:

- *USDA Forest Service Special Use Authorization (SUA)*: A Standard Form 299 (Application for Transportation and Utility Systems and Facilities on Federal Lands) has been filed with the USFS to officially start the SUA process. The application information is needed by the USFS to evaluate the request to use National Forest System lands and manage those lands to protect natural resources, administer the use, and ensure public health and safety. The authority for the requirement is provided by the Organic Act of 1897 and the Federal Land Policy and Management Act of 1976, which authorize the secretary of Agriculture to promulgate rules and regulations for authorizing and managing National Forest System lands. A new SUA is needed to construct and operate LRSR project on National Forest System Lands.

- *Clean Water Act (CWA) Section 404 Permit (and Water Management Plan (WMP))*: Construction and maintenance of the project, within portions of Littlerock Creek and/or Reservoir, would result in activities that involve a discharge of material to presumed "waters of the State." Therefore, a Section 401 Water Quality Certification from the State Water Resources Control Board would be required to comply with the applicable provisions under the Federal Clean Water Act.
- *CWA Section 401 Certification*: Section 401 of the Clean Water Act (CWA) regulates the discharge of dredged material, placement of fill material, or certain types of excavation within "waters of the U.S." Construction and maintenance of the project, within portions of Littlerock Creek and/or Reservoir, would result in activities that would discharge or place fill material into presumed "waters of the U.S." and/or wetlands. These types of activities would require a permit or authorization from the United States Army Corps of Engineers.
- *National Pollutant Discharge Elimination System (NPDES) Permit and NPDES Associated Storm Water Pollution Prevention Plan*: To control the types of pollutants/wastes to be discharged and how the pollutants/waste are treated or contained, Regional Water Boards issue NPDES permits. Construction and maintenance of the project within portions of Littlerock Creek and Reservoir may result in the discharge of pollutants into "waters of the U.S." from point sources such as pipes or man-made ditches. Therefore an individual NPDES permit is required.
- *Endangered Species Action (ESA) Section 7 Biological Opinion*: Federally listed wildlife species are known to occur within and adjacent to the project site. Arroyo toad (Anaryxus (Bufo) californicus [Federally Endangered]) has been recently documented within the southern extent of the project site. The Federally Endangered least bell's vireo (Vireo bellii pusillus) has been detected within the riparian habitat immediately below the dam. Direct and indirect impacts to these species may occur during construction and maintenance of the project. Under Section 7, Federal agencies must consult with the U.S. Fish and Wildlife Service (Service) when any action the agency carries out, funds, or authorizes (such as through a permit) may affect a listed endangered or threatened species.
- *Section 2081 Incidental Take Permit (ITP)*: The state endangered least bell's vireo has recently been documented within the riparian habitat immediately below the dam. Direct and indirect impacts to this species could occur as a result of the construction and maintenance of the project. Sections 2081(b) and (c) of the California Endangered Species Act allow the California Department of Fish and Wildlife (CDFW) to issue an incidental take permit for a State listed threatened and endangered species if specific criteria are met.
- *Lake or Streambed Alteration Agreement (Section 1602 and 1605 Permits)*: Because construction and maintenance of the project would potentially divert and/or obstruct the natural flow of Littlerock Creek and substantially change the bed, channel, and bank of Littlerock Creek and/or Reservoir a Lake or Streambed Alteration Agreement may be required from the CDFW.

Permit applications have not been submitted as of the date of this application package.

Permitting Activities or Deliverables	Schedule	Status	Completion	
			Before Aug 2013	After Aug 2013
USFS SUA	October 2012 – October 2015	Underway		✓
CWA Section 404 Permit and WMP	July 2013 – May 2014	Not yet begun		✓
CWA Section 401 Certification (WMP included in 404 permit)	July 2013 – August 2014	Not yet begun		✓
NPDES and associated SWPPP	July 2013 – June 2014	Not yet begun		✓
ESA BO	July 2013 – March 2014	Not yet begun		✓
Section 2081 ITP	July 2013 – March 2014	Not yet begun		✓
Section 1602 and 1605 Permits	January 2015 – May 2015	Not yet begun		✓

(d) Construction/Implementation

Task 8: Construction Contracting

The construction contracting for the project will be handled by PWD. Tasks to secure the Contract award include: advertisement for bids, a pre-bid contractors meeting, bid opening, bid evaluation and selection of contractor with lowest responsive bid. PWD will review bids for completeness, and award the project to the responsible bidder with the lowest bid in accordance with the Public Contract code. Once the project has been bid and awarded, the selected contractor will construct the project in accordance with the final plans and specification.

Construction Contracting Activities or Deliverables	Schedule	Status	Completion	
			Before Aug 2013	After Aug 2013
Preparation of Bid Packages	June 2015	Not yet begun		✓
Advertisement of bids	June – August 2015	Not yet begun		✓
Pre-bid contractors Meeting	August 2015	Not yet begun		✓
Evaluation of bids	August – September 2015	Not yet begun		✓
Bid award	September 2015	Not yet begun		✓
Notice to Proceed	October 2015	Not yet begun		✓

Task 9: Construction

The LRSR Project consists of two construction components: the Grade Control Structure and Sediment Removal. Both of these activities are described in detail below:

Grade Control Structure

The grade control structure will be constructed just downstream of the Rocky Point area. Figure 3-4 shows the location of the grade control structure within the Littlerock Reservoir. This location has been selected to allow construction of a minimum sized grade control structure that can prevent upstream head cutting and preserve critical habitat for the arroyo toad. To protect arroyo toad from sediment removal activities, the grade control structure will be constructed prior to sediment removal.

The conceptual grade control structure design consists of a permanent structure constructed of soil cement as a cascading (stair-step) structure with a series of steep drops of approximately 4 feet each, with 15-foot horizontal aprons downstream of each drop, extending to a total depth of up to 70 feet below the existing ground surface. Figures 3-5 and 3-6 provide an overview and profile image of the conceptual grade control structure design and dimensions. The grade control structure would span approximately 260 feet of channel (bank to bank) at the Rocky point area, with construction activities temporarily disturbing a section of Reservoir channel and adjacent bank approximately 300 feet wide in a direction perpendicular to the flow, and 500 feet long (include the total length of the structure) with the flow of the creek. The temporary disturbance during construction (including dewatering wells) would be approximately four acres for the grade control structure.

Because the grade control structure would be constructed below grade, only the top or upper lip of the structure would be visible when the Reservoir water level is lowered. Figure 3-7 shows a visual simulation of the completed grade control structure under lowered reservoir conditions. As shown in Figure 3-6, permanent disturbance at the end of construction would consist of the top of the grade control structure that remains visible above grade (approximately 8 feet by 238 feet, or 0.4 acre). As drop forms downstream of this structure, the visible portion of the structure could expand to a maximum of approximately 68 feet by 238 feet (0.37 acre) should sediment transport expose additional downstream areas of the grade control structure. The total drop height of the exposed upper lip would vary from zero up to a maximum of approximately 13 feet, depending upon reservoir inflows and sediment levels. When the Reservoir is full the grade control structure would be completely submerged and not visible.

Sediment Removal

Sediment removal would begin immediately subsequent to construction of the grade control structure during a proposed 5-year closure of the Reservoir. A total of 900,000 cubic yards of sediment are required to achieve the desired Reservoir capacity. The 5-year closure period ensures that 900,000 cubic yards of sediment can be removed when accounting for seasonal rainfall and other potential disruptions to sediment removal activities. Preliminary estimates indicate that an excess of 1,100,000 cubic yards of sediment would likely need to be removed to account for ongoing annual sediment deposition of 54,000 cubic yards per year. Therefore, sediment removal activities would achieve or exceed the optimal desired Reservoir capacity of 3,560 AF.

Figure 3-8 shows the Reservoir area designated for sediment removal and the adjacent canyon where sediment will be disposed. When the Reservoir is full, the area proposed for sediment removal is covered by water. The Reservoir will be lowered and maintained to a minimum dead pool level during the 5-year

closure period. When feasible, sediment removal would occur evenly to preserve the existing slope of the Reservoir bottom. Ground disturbance associated with sediment removal activities would include up to 100 acres. As discussed later, egress and ingress of equipment and trucks into the Reservoir will occur from either the existing access ramp slope at Rocky Point or the boat landing ramp. Permanent disturbance outside of the Reservoir bed is not expected to occur with the sediment removal portion of the proposed action.

Subtask Descriptions:

Subtask 9.1 Special Conditions:

Mobilization

Closure of the Reservoir facility is necessary to facilitate construction of the grade control structure and removal of sediment thereafter. Therefore, the proposed action includes a 5-year closure of the Reservoir to the public. Signage indicating the duration of Reservoir closure would be posted on Cheseboro Road between Mt. Emma Road and the entrance to the Reservoir. A gate would be installed at the existing guard shack location eliminating public vehicular access during the 5-year closure of the Reservoir to the public. Additionally, signage or a temporary kiosk would be installed at the closure point informing the public of the LRSR project and other recreational and OHV areas in the area.

Local vehicle access to the Reservoir is provided via Cheseboro Road, where it leads into the Littlerock Recreational Area, which contains three parking lots and an internal roadway providing circulation throughout the Reservoir area (refer to Figures 3-4 and 3-8). Once the Reservoir level is lowered, vehicle egress/ingress to the Reservoir bed would occur from the existing boat ramp located on the west side of the Reservoir and from an existing Reservoir access slope at the Rocky Point Picnic Area parking lot. The current boat landing ramp on the west side of the Reservoir is paved with an acceptable grade for vehicle and equipment access. However, the existing access ramp from the Rocky Point Picnic Area parking lot may require a decrease in grade to allow construction vehicle and equipment egress/ingress. Additional material to decrease slope will come from within the Reservoir bed sediment removal area, resulting in minimal increase to temporary disturbance. The use of these existing access ramps and internal roadway system connecting all parking areas will allow project related vehicles to travel throughout the Reservoir utilizing the existing transportation/circulation system.

Temporary Electric Power - Dewatering

Dewatering activities conducted under Subtask 9.2 will require access to electric power for the duration of construction to power dewatering wells. See discussion below. These wells, and the connection to the electric power supply, will be temporary, removed after construction, and the ground restored to the pre-construction condition upon completion of the grade control structure.

Asphalt Paving

At the completion of sediment removal activities, PWD's contractor would repair any damage to existing paved parking areas, access roads, and travel paths demonstrable to sediment removal activities. It is assumed roadway and paved parking area restoration activities would include, but not be limited to, surface replacement, repair and fill of any potholes or surface scrapes, as well

as slurry sealing of any new significant surface crack damage demonstrable to sediment removal activities.

Lawns and Grasses
Disturbed channel areas would be returned to pre-construction conditions or better after construction. Native, locally collected seed mixtures and container plant material would be planted in areas that previously contained vegetation disturbed during construction of the grade control structure activities. Site restoration efforts are expected to begin immediately following the cessation of construction activities concurrent with appropriate planting conditions and permit requirements.

Subtask 9.2 Grade Control Structure:

It is expected that the grade control structure would begin in October 2015 and be finished approximately 4-6 months after initiation of construction. Construction of the grade control structure would occur 5-days a week from 7 a.m. to 7 p.m. Should night construction be required (daylight savings period), it would only occur with prior authorization from the USFS and would not be conducted near habitat that supports arroyo toads to avoid interference with breeding calls from construction noise. Also, any construction activities during a Red Flag warning event would be coordinated with the USFS prior to daily start-up.

Water Truck
The construction team will utilize a water truck to provide dust suppression during construction of the grade control structure.

Site Clearing
All vegetation, soil, and rock material will be cleared as necessary to prepare the site for construction work. All equipment staging and maintenance, temporary employee parking, and imported material storage would occur on 4.94 acres of existing paved parking areas located adjacent to the Reservoir (refer to Figure 3-8). No fuel storage or vehicle staging would occur within the Reservoir.

Dewatering
Construction of the grade control structure would require diversion of subsurface water around the construction area. Subsurface flows will be collected by installing a series of dewatering wells to a maximum depth of approximately 70 feet in the reservoir bed along the upstream and downstream limits of construction. These wells will pump subsurface water into a temporary pipeline that will convey the water around the construction site to be discharged into the reservoir bed downstream of the construction. Wells are expected to be approximately 4 to 6 inches in diameter and spaced in a line at 3- to 10-foot intervals of the grade control excavation location. These wells are expected to be located near the excavation perimeter. Intermediate wells may be necessary along the cut slope between the primary wells and the bottom of the excavation, and it is possible additional wells may be required at a distance of 100-200 feet upstream of the upstream excavation edge, as well as at the downstream edge of construction. These wells will be temporary, removed after construction, and the ground restored to the pre-construction condition upon completion of the grade control structure.

Surface flows from Littlerock Creek, if present, will be collected using a temporary coffer dam and sump. Depending on the amount of water flow, coffer dam size would vary but is assumed to be limited to less than grade control structure construction area width (approximately 300 feet). Water collected in the sump will be pumped around the construction site and discharged into the downstream Reservoir bed.

Excavation Support and Protection

Construction of the grade control structure will employ the use of all necessary shoring techniques to maintain excavation sites in a workable and safe manner.

Earthwork

Excavation for placement of the grade control structure would require the movement of approximately 130,000 cubic yards of material. This material would not be transported off-site, but would be stockpiled within the empty Reservoir bed downstream of Rocky Point, where it will be used as material for soil cement and for backfill as the grade control structure is built. It is anticipated that excavation would require four bulldozers.

Construction of the grade control structure would require approximately 12,000 cubic yards of soil cement. Sandy soil for the soil cement would come from the excavated material, which would be fed through a portable rock screener for sorting, then transported to and fed into a portable pug mill or soil cement batch plant where it would be mixed with water and Portland cement. These facilities would be located within 4.94 acres of existing paved parking areas. Portland cement would be obtained from off-site commercial sources and trucked to the staging area. Cementitious materials would be stored on-site at existing paved parking areas at portable batch plant locations. Required water for soil cement would be obtained from the remaining Reservoir pool and transported by truck or temporary pipeline.

Soil Stabilization

Soil cement mixture would then be transported in trucks to the grade control site and spread and compacted in lifts, and in a stair-step fashion, to form the grade-control structure. The excavation would be backfilled as the structure is built up. Construction access to the grade control structure site from the 4.94 acres of existing paved parking areas to be used for staging can occur from either the existing access ramp slope at Rocky Point or the boat landing ramp.

Transmission Pipelines

Transmission pipelines will be constructed to maintain water diversions during construction.

Water Supply and Intake Structures

Water supply and treatment pumps will be employed during construction to maintain water diversions. Water supply, intake structure, and water diversion valves will be accessible and operational during construction to maintain water supply to Lake Palmdale and to stay in compliance with Division Safety Dams.

Subtask 9.3: Sediment Removal

As discussed earlier, sediment removal would occur when the Reservoir was lowered and maintained to a minimum dead pool level. During the winter and spring months of the 5-year closure period, PWD will regularly (as needed) drain the Reservoir pool as it is filled by Littlerock Creek (via stormwater and annual snow melt) to maximize sediment removal operations. Because the grade control structure would be in place prior to sediment excavation, stream flows would be minimized or eliminated into the Reservoir bed during sediment removal periods. However, should stream flow be present, water would be diverted around the extraction site via a temporary coffer dam and sump, with water transferred via a temporary pipeline into the dead pool. Should groundwater occur, temporary pumps and pipelines would transfer water from the removal area into the remaining water pool. As these circumstances would vary from season to season, exact specifications of these temporary features are not available but should be assumed to be a maximum width of the affected sediment removal work area.

Sediment removed from the Reservoir is expected to consist of a combination of fine sediments, sand, course gravels, and cobble. Given that Littlerock Reservoir is a naturally fed water storage facility, it is unlikely that any sediment removed would be contaminated. However, prior to disposal of excavated materials, a sediment testing program would be implemented to identify any potential contaminants. If contaminated material is identified, the PWD, in consultation with the USFS, would transport this material to an approved hazardous material storage facility, such as the Lancaster Landfill and Recycling Center, for disposal. Clean sediment would be hauled to an adjacent 25-acre canyon on USFS lands for placement and spreading. The sediment disposal location is shown on Figure 3-8. Access roads would be graded within the canyon for dump truck access. The haul route for trucks transporting sediment would occur between the canyon and both Reservoir access points (boat ramp and Rocky Point). Sediment would be dumped and spread at the lowest elevations first, with the canyon then filled and re-contoured to match adjacent slopes. Additionally, due to removed sediment consisting of primarily fine sediments, minimal change to existing hydrology would occur within the canyon.

A Sediment Removal Summary is provided below with an overview of sediment removal activities.

Component	Details
Work Schedule	Mon-Fri, 7am-7pm
Sediment Removal [1]	Minimum net total of 900,000 Cubic Yards
Number of 12-Cubic Yard Dump Trucks	12
Truck Trips (Round Trip) [1]	108 Daily 19,440 Annual

[1] Assumptions:

- Each truck conducts one round trip per hour between the Reservoir and disposal location;
- Annual average of 9 hours of daily operation per truck; and
- Annual average of 36 weeks operating 5 days per week (180 days per year)

Construction Activities or Deliverables	Schedule	Status	Completion	
			Before Aug 2013	After Aug 2013
Subtask 9.1 Special Conditions	October 2015 - December 2019	Not yet begun		✓
Subtask 9.2 Grade Control Structure	December 2015 - May 2016	Not yet begun		✓
Subtask 9.3 Sediment Removal	June 2016 - December 2019	Not yet begun		✓

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

PWD will prepare a Mitigation Monitoring Compliance and Reporting Program (MMCRP) after the completion of all environmental clearance documents, acquisition of permits, issuance of PWD and USFS decisions, and after the USFS SUA is obtained. PWD will incorporate all required actions as specified in the acquired documents and permits into the MMCRP.

Environmental Compliance / Mitigation / Enhancement Activities or Deliverables	Schedule	Status	Completion	
			Before Aug 2013	After Aug 2013
Mitigation Monitoring Compliance and Reporting Program (MMCRP)	October 2015- December 2019	Not yet begun		✓

(f) Construction Administration

Task 11: Construction Administration

PWD will hire a qualified engineering consulting firm for construction management services to serve as the representative at the construction site to provide daily on-site observation, coordinate with contractors, review schedules and invoices, and provide inspection services to ensure construction is in compliance with PWD standards and other governing standards. PWD will compile the major items in the monthly progress reports into quarterly reports to accompany invoices to the grantee agency.

Construction Contracting Activity or Deliverable	Schedule	Status	Completion	
			Before Aug 2013	After Aug 2013
Construction Administration	October 2015- December 2019	Not yet begun		✓
Quarterly Construction Reports	October 2015- December 2019	Not yet begun		✓

(g) Other Costs

PWD will develop a data management plan and system to process, store and share all the data collected during after completion of the proposed project. The data management plan and system will be developed alongside the performance measures and monitoring plan. This is to ensure the data collected is used to ensure the project is meeting its objectives.

PWD will develop an operations and maintenance plan for the proposed project. The plan will address all operation and maintenance components of the sediment removal activities, including, but not limited to, management of vegetation, sensitive species, sediment, and water as well as issues such as agreements with on-site concessionaire (if necessary), restoration methods, and timing.

Other Activity or Deliverable	Schedule	Status	Completion	
			Before Oct 2013	After Oct 2013
Development of Data Management	June - December 2019	Not yet begun		✓
Development of Performance Measures and Monitoring Plan	June - December 2019	Not yet begun		✓
Development of Operations and Maintenance Plan	June - December 2019	Not yet begun		✓

Discussion of Standards

This Project will meet all the following construction standards, health and safety standards, laboratory analysis, and classification methods:

- Standard specification of Public Works Construction 2009
- Standard Plans of the Los Angeles County Department of Public Works; 3080-2, 3090-1, 3091.1, 3093-1, and 6002-1.
- Occupational safety and health administration
- American Society for Testing and Materials
- Uniform Building Code
- California Administrative Code Title 24, Energy Conservation Standards
- American National Standard Institute
- State Water Resources Control Board
- Construction Site Best Management Practices Manual
- American Water Works Association
- PWD Specifications for Water Distribution System Construction

- Detailed specifications developed by project engineer that will be made part of the contract documents

FOUNDED 1892

LITTLEROCK CREEK
·IRRIGATION DISTRICT·

January 30, 2013

Mr. Zaffar Eusuff, Program Manager
Department of Water Resources
Division of Financial Assistance
P.O. Box 942836
Sacramento, CA 94236

Dear Mr. Eusuff:

LITTLEROCK CREEK IRRIGATION DISTRICT
LETTER OF SUPPORT

We are pleased to provide this Letter of Support for the Palmdale Water District Littlerock Reservoir Sediment Removal Project being submitted for the Stormwater Flood Management Grant Proposal, Proposition 1E funding.

Littlerock Creek Irrigation District supports the Littlerock Reservoir Sediment Removal Project and recognizes the valuable benefits it will provide to the Region. These benefits include water supply, debris control and flood protection, habitat preservation for federally endangered species, water quality improvements, energy conservation, reduced greenhouse gas emissions, and the continuance of open space and recreation for the surrounding community.

Thank you for your consideration of this valuable project for funding.

Sincerely,

BJ Bones

BRAD BONES

General Manager

35141 87TH STREET EAST LITTLEROCK, CALIFORNIA 93543
(661) 944-2015 • FAX (661) 944-3668

FS Agreement No. 12MU-1105-0100-014
Cooperator Agreement No.

MEMORANDUM OF UNDERSTANDING
Between The
PALMDALE WATER DISTRICT
And The
USDA, FOREST SERVICE
PACIFIC SOUTHWEST REGION, ANGELES NATIONAL FOREST

This MEMORANDUM OF UNDERSTANDING (MOU) is hereby made and entered into by and between the Palmdale Water District, hereinafter referred to as "PWD," and the USDA, Forest Service, Pacific Southwest Region, Angeles National Forest, hereinafter referred to as the "U.S. Forest Service."

Title: PWD Cooperative Work on the Angeles National Forest for the Littlerock Reservoir Sediment Project (Project).

I. **PURPOSE:** The purpose of this MOU is to document the cooperation between the parties to provide a framework for cooperation between the U.S. Forest Service and PWD to work together as joint lead agencies in preparing and completing a joint environmental analysis and document that is in compliance with NEPA, CEQA, and all applicable laws, executive orders, regulations, direction, and guidelines in accordance with the following provisions.

The PWD holds a Special Use Permit to operate and maintain the Littlerock Dam, Reservoir, and associated facilities as a local surface water impoundment. The Reservoir is a man-made feature formed by the impoundment of water on Littlerock Creek and is located within the boundaries of the Santa Clara/Mojave Rivers Ranger District of the Angeles National Forest. PWD proposes to excavate sediment from the Littlerock Reservoir and construct a grade control structure in order to remove excess reservoir sediment that has accumulated over time; restore and maintain the water storage capacity of the Reservoir; and prevent sediment loss and headcutting of the stream channel upstream of the Reservoir to prevent the incidental "take" of arroyo toad (*Anaxyrus californicus*), a federally endangered species.

The Forest Service, as joint lead agency under 40 CFR 1501.5(b), has determined that an Environmental Impact Statement (EIS) is required before a decision on the Project can be made. The EIS must comply with the National Environmental Policy Act of 1969, 42 U.S.C. 4371 et seq. (NEPA), and all other applicable laws, executive orders, regulations, and direction, including, but not limited to, the Council of Environmental Quality (CEQ) Regulations (40 CFR 1500-1508), the Endangered Species Act, the Angeles National Forest Land and Resources Management Plan, Forest Service Manual 1950, and Forest Service Handbook 1909.15.

The PWD, as the lead agency under the California Environmental Quality Act (CEQA) and as joint lead agency under 40 CFR 1501.5(b), has determined that an Environmental Impact Report (EIR) is required for the Project. The EIR must comply with CEQA and all other applicable laws and regulations.

II. STATEMENT OF MUTUAL BENEFIT AND INTERESTS:

CEQ regulations (40 CFR 1506.2) direct federal agencies to cooperate with State and local agencies to the fullest extent possible to reduce duplication between NEPA and State and local requirements, including joint planning processes, environmental research and studies, public hearings, and environmental impact statements. CEQA Guidelines Sections 15222 and 15226 encourage similar cooperation by State and local agencies with federal agencies when environmental review is required under both CEQA and NEPA. Under these conditions, the Parties shall be joint lead agencies developing one document that complies with all applicable laws.

In consideration of the above premises, the parties agree as follows:

III. PWD SHALL:

A. Serve as the CEQA lead agency throughout the CEQA process.

B. Comply with Federal Statutes relating to non-discrimination. This includes, but is not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352), which prohibits discrimination on the basis of race, color, handicap, or national origin; (b) Title XI of the Education Amendments of 1972, as amended (20 U.S.C. 1681-1683 and 1685-1686) which prohibits discrimination on the basis of sex.

C. Require full cooperation of the Contractor.

D. As required, the PWD will be responsible for consulting with the California Department of Fish and Game.

E. Be responsible for conducting joint public meetings and/or hearings.

F. Coordinate with the Contractor and the Forest Service to develop and implement a Public and Agency Involvement Plan, which shall provide meaningful opportunities for public and agency notification, involvement, and participation during the environmental review of the Project. This Plan shall meet the legal/procedural requirements of CEQA and NEPA for public notification and involvement and provide additional items tailored to meet the specific needs of the Project. The Plan shall include, but not be limited to, the following: a Project telephone and fax hotline/email through which concerned citizens and organizations can contact the Project team and ask questions or submit comments; a Project database and document tracking; agency and stakeholder consultation;

preparation and distribution of the CEQA Notice of Preparation and the NEPA Notice of Intent; Project scoping, including a public scoping meeting and associated public notification; Draft EIR/EIS public involvement activities; post-Draft EIR/EIS support; and optional activities such as a Project website, electronic notification, and a Project newsletter.

G. Provide construction monitors.

H. Provide all graphic handouts and presentations for public meetings/hearings. Any such graphic presentations and/or handouts shall be submitted to the Forest Service for approval prior to distributing them at public meetings/hearings.

I. Be responsible for all stenographic, clerical, graphics, layout, printing, and like work.

J. Mail scoping letters and other correspondence, and arrange for publication of notices as required by the NEPA/CEQA processes.

K. Produce an internal administrative Draft EIR/EIS for review by the Forest Service prior to publication of the Draft EIR/EIS. The administrative draft shall include all text, maps, appendices, tables, charts, and other materials that will be incorporated in the Draft EIR/EIS for publication. As determined by the Forest Service, PWD shall provide a reasonable number of copies to meet internal review needs.

L. Include evaluation of potential alternatives and impacts in the Draft EIR/EIS. The Draft and Final EIR/EIS will apply whichever NEPA and CEQA requirement is more stringent in the analysis. The Draft and Final EIR/EIS will describe any inconsistencies between Federal plans or laws as they pertain to the proposed actions and describe the extent to which the Forest Service would reconcile the proposed action with the plan or law.

M. Have primary responsibility for writing and rewriting all sections, parts, and chapters of the EIR/EIS, subject to Forest Service comments during the environmental analysis and responses to the administrative Draft and Final EIR/EIS.

N. Coordinate with the Forest Service to develop standardized impact minimization measures for inclusion in the EIR/EIS and regulatory permit applications, as necessary. These measures shall be implemented during all construction and operations & maintenance (O&M) activities associated with the Project, as applicable. These measures shall include, but not be limited to, general Standard Operating Procedures and Best Management Practices as well as detailed mitigation measures for impacts to cultural and biological resources.

IV. THE U.S. FOREST SERVICE SHALL:

A. Serve as the NEPA lead agency throughout the NEPA process.

B. Provide updated mailing lists of stakeholders in affected National Forest or other Federal land to the PWD for soliciting input and distributing the scoping letter, Draft and Final EIR/EIS, and Record of Decision as required by law.

C. Review, and if acceptable, approve the draft Notice of Intent (NOI), public notices, and Notice of Availability of the document, before publication in appropriate periodicals.

D. Review, and if acceptable, approve draft scoping letter, before PWD sends the letter to stakeholders in mailing list provided by the Forest Service.

E. File Draft and Final EIR/EIS with the Environmental Protection Agency (EPA).

F. Be responsible for consulting with the United States Fish and Wildlife Service for a Section 7 Consultation and the California State Historic Preservation Officer for a Section 106 Consultation regarding proposed federal action; at the discretion of the Forest Service, PWD shall furnish such data or information required to accomplish such consultation.

G. Coordinate with the PWD to provide an approved set of Cultural Resources Mitigation Meausures.

H. Coordinate with the PWD to develop and implement a Public and Agency Involvement Plan, as described above under III.F above.

I. Coordinate with the PWD to develop and implement a Biological Resources Study Plan, which shall include, but not be limited to, the following: appropriate surveys and data collection to support preparation of the EIR/EIS and applicable regulatory compliance permits (including State and Federal Endangered Species Acts (ESA) compliance, California Department of Fish and Game Lake and Streambed Permitting Section 1602 and 1605, United States Army Corps of Engineers Clean Water Act Section 404, and Lahontan Regional Water Quality Control Board Section 401 Certification), preparation of Forest Service requirements (Biological Evaluation, Management Indicator Species Report, Weed Management Report, and Riparian Conservation Report), and plans related to biological resources (e.g., Water Management Plan, Habitat Compensation and Mitigation Plan, Operation and Maintenance Plan).

V. IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

A. PRINCIPAL CONTACTS. Individuals listed below are authorized to act in their respective areas for matters related to this agreement.

Principal Cooperator Contacts:

Cooperator Program Contact	Cooperator Administrative Contact
Matt Knudson 2029 East Avenue Q Palmdale, CA 93550 (661) 947-4111 x118 (661) 947-8604 mknudson@palmdalewater.org	Matt Knudson 2029 East Avenue Q Palmdale, CA 93550 (661) 947-4111 x118 (661) 947-8604 mknudson@palmdalewater.org

Principal U.S. Forest Service Contacts:

U.S. Forest Service Program Manager Contact	U.S. Forest Service Administrative Contact
Wilburn Blount 33708 Crown Valley Road Acton, CA 93510 (661) 269-2808 FAX: (661) 269-2825 wmblount@fs.fed.us	Bonnie Harris 701 N. Santa Anita Ave. Arcadia, CA 91006 (626) 574-5246 (626) 574-5363 bharris@fs.fed.us

B. NON-LIABILITY. The U.S. Forest Service does not assume liability for any third party claims for damages arising out of this agreement.

C. NOTICES. Any communications affecting the operations covered by this agreement given by the U.S. Forest Service or PWD is sufficient only if in writing and delivered in person, mailed, or transmitted electronically by e-mail or fax, as follows:

To the U.S. Forest Service Program Manager, at the address specified in the MOU.

To PWD, at PWD's address shown in the MOU or such other address designated within the MOU.

Notices are effective when delivered in accordance with this provision, or on the effective date of the notice, whichever is later.

D. PARTICIPATION IN SIMILAR ACTIVITIES. This MOU in no way restricts the U.S. Forest Service or PWD from participating in similar activities with other public or private agencies, organizations, and individuals.

E. ENDORSEMENT. Any of PWD's contributions made under this MOU do not by direct reference or implication convey U.S. Forest Service endorsement of PWD's products or activities.

F. NONBINDING AGREEMENT. This MOU creates no right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity. The parties shall manage their respective resources and activities in a separate, coordinated and mutually beneficial manner to meet the purpose(s) of this MOU. Nothing in this MOU authorizes any of the parties to obligate or transfer anything of value.

Specific, prospective projects or activities that involve the transfer of funds, services, property, and/or anything of value to a party requires the execution of separate agreements and are contingent upon numerous factors, including, as applicable, but not limited to: agency availability of appropriated funds and other resources; cooperator availability of funds and other resources; agency and cooperator administrative and legal requirements (including agency authorization by statute); etc. This MOU neither provides, nor meets these criteria. If the parties elect to enter into an obligation agreement that involves the transfer of funds, services, property, and/or anything of value to a party, then the applicable criteria must be met. Additionally, under a prospective agreement, each party operates under its own laws, regulations, and/or policies, and any Forest Service obligation is subject to the availability of appropriated funds and other resources. The negotiation, execution, and administration of these prospective agreements must comply with all applicable law

Nothing in this MOU is intended to alter, limit, or expand the agencies' statutory and regulatory authority.

G. MEMBERS OF U.S. CONGRESS. Pursuant to 41 U.S.C. 22, no U.S. member of, or U.S. delegate to, Congress shall be admitted to any share or part of this agreement, or benefits that may arise therefrom, either directly or indirectly.

H. FREEDOM OF INFORMATION ACT (FOIA). Public access to MOU or agreement records must not be limited, except when such records must be kept confidential and would have been exempted from disclosure pursuant to Freedom of Information regulations (5 U.S.C. 552).

I. TEXT MESSAGING WHILE DRIVING. In accordance with Executive Order (EO) 13513, "Federal Leadership on Reducing Text Messaging While Driving," any and all text messaging by Federal employees is banned: a) while driving a Government owned vehicle (GOV) or driving a privately owned vehicle (POV) while on official Government business; or b) using any electronic equipment supplied by the Government when driving any vehicle at any time. All cooperators, their employees, volunteers, and contractors are encouraged to adopt and enforce policies that ban text messaging when driving company owned, leased or rented vehicles, POVs or GOVs when driving while on official Government business or when performing any work for or on behalf of the Government.

J. TERMINATION. Any of the parties, in writing, may terminate this MOU in whole, or in part, at any time before the date of expiration.

K. DEBARMENT AND SUSPENSION. PWD shall immediately inform the U.S. Forest Service if they or any of their principals are presently excluded, debarred, or suspended from entering into covered transactions with the federal government according to the terms of 2 CFR Part 180. Additionally, should PWD or any of their principals receive a transmittal letter or other official Federal notice of debarment or suspension, then they shall notify the U.S. Forest Service without undue delay. This applies whether the exclusion, debarment, or suspension is voluntary or involuntary.

L. CONSULTATION. The Agency Project Representatives shall keep each other advised of the developments affecting the preparation of the Draft EIR/EIS. The Forest Service will keep PWD informed of all discussions with Contractor and involve PWD when appropriate.

M. TIMELINE. Attached to this MOU is a draft detailed schedule, which Parties intend to serve as a template for the actual schedule of deadlines that they intend to adhere to in completing the environmental review that is subject to this MOU. The Parties agree to modify and reach final agreement on the details of this draft schedule, which will include specific dates establishing the deadlines for expected deliverables from the Contractor, as well as deadlines for the Forest Service and PWD to respond to all materials provided by the Contractor. Once the details of this schedule are agreed to, the Parties shall undertake their best efforts to comply with all deadlines set forth in said schedule.

N. MODIFICATIONS. Modifications within the scope of this MOU must be made by mutual consent of the parties, by the issuance of a written modification signed and dated by all properly authorized, signatory officials, prior to any changes being performed. Requests for modification should be made, in writing, at least 30 days prior to implementation of the requested change.

O. COMMENCEMENT/EXPIRATION DATE. This MOU is executed as of the date of the last signature and is effective through 12/31/2013 at which time it will expire, unless extended by an executed modification, signed and dated by all properly authorized, signatory officials.

P. AUTHORIZED REPRESENTATIVES. By signature below, each party certifies that the individuals listed in this document as representatives of the individual parties are authorized to act in their respective areas for matters related to this MOU. In witness whereof, the parties hereto have executed this MOU as of the last date written below.

7/26/12

MATTHEW KNUDSON, Engineering Manager — Date
Palmdale Water District

06/29/2012

MARTIN DUMPIS, Acting Forest Supervisor — Date
U.S. Forest Service, Angeles National Forest

The authority and format of this agreement have been reviewed and approved for signature.

6/29/12

BONNIE HARRIS — Date
U.S. Forest Service Grants & Agreements Specialist

Burden Statement

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0217. The time required to complete this information collection is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

USDA United States Department of Agriculture | Forest Service | Angeles National Forest
Santa Clara/Mojave
Rivers Ranger District

33708 Crown Valley Road
Acton, CA 93510
661-296-9710 Voice
626-447-8992 TTY

File Code: 2720-2
Date: December 12, 2011

Matthew R. Knudson
Engineering Manager
Palmdale Water District
2029 East Avenue Q
Palmdale, CA 93550

DEC 15 2011

Dear Mr. Knudson:

Enclosed is the fully executed cost recovery agreement. Our Albuquerque office will send you a bill for collection within two weeks. As we discussed, the cost recovery agreement will pay for the Forest Service's review and potential issuance of an amendment for the removal of accumulated sediment from the reservoir and construction of a grade control structure. The estimated processing fee for these actions is $119,415.70. Appendix D of the Major Cost Recovery Agreement (enclosed) breaks down the scope of work showing the hours and costs for processing your application.

The estimated costs as shown in Appendix D are anticipated to cover progress on the processing of the application for amendment, up to and including the release of a Draft EIR/EIS to the public. The parties agree to review the status of funds and progress on processing the application approximately 6 months after the cost recovery bill is paid. The purpose of this joint review will be to determine additional funding necessary to complete the processing of the application and issuing the amendment.

When your payment is received, we will contact you and begin the review process. If you have any questions or if I can be of further assistance, please contact Joe Holzinger, Permit Administrator at (661) 296-9710 extension 249.

Sincerely,

WILBURN M. BLOUNT
District Ranger

CR Agreement #
12MJ-11050153981

FS-2700-26 (05/09)
USDA Forest Service
OMB No. 0596-0082

CATEGORY 6 MAJOR COST RECOVERY AGREEMENT

Between

USDA, FOREST SERVICE, Angeles National Forest,

DEC 1 5 2011

and the Palmdale Water District

This agreement is entered into between the UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE, Angeles National Forest (the Forest Service), and the Palmdale Water District (the applicant), under 36 CFR 251.58.

A. RECITALS

1. On 10/27/2011, the Forest Service accepted the applicant's application for use and occupancy of National Forest System lands (hereinafter "the application"), which is enumerated in Appendix A. The Forest Service shall assess the applicant a cost recovery fee for the agency's costs to process the application.

2. The Forest Service has determined that the fee for processing the application falls within category 6 under the applicable Forest Service processing fee schedule and/or that the fee for monitoring the applicant's special use authorization falls within category 6 under the applicable Forest Service processing fee schedule.

3. The geographic area to be covered by this agreement is Little Rock Reservoir (NE¼NW¼ of Sec. 3, T.4 N., R.11 W.; W½ of Sec. 34, T.5 N., R. 11 W.; SW¼SW¼ and SE¼SW¼ of Sec. 27, T.5 N., R.11 W., SBBM). See Appendix B.

4. The application has been submitted or the applicant's special use authorization is being issued under an authority other than the Mineral Leasing Act, and the applicant has not waived payment of reasonable costs. Therefore, the Forest Service is entitled to recover its full reasonable costs incurred in processing the application.

5. Payment of a processing fee by the applicant does not obligate the Forest Service to authorize the applicant's proposed use and occupancy. If the application is denied or withdrawn in writing, the applicant is responsible for costs incurred by the Forest Service in processing the application up to and including the date the agency denies the application or receives written notice of the applicant's withdrawal. If the applicant withdraws the application, the applicant also is responsible for any costs subsequently incurred by the Forest Service in terminating consideration of the application.

6. The Forest Service shall determine the appropriate level of environmental analysis for the application and inform the applicant prior to initiating the environmental analysis.

7. Information associated with this agreement may be released to the public in accordance with the provisions of the Freedom of Information Act and Privacy Act.

PART I PROCESSING FEES

B. BASIS FOR PROCESSING FEES

Processing fees for the application are based upon the direct and indirect costs that the Forest Service incurs in reviewing the application, conducting environmental analyses of the effects of the proposed use, reviewing any applicant-generated environmental documents and studies, conducting site visits, evaluating the applicant's technical and financial qualifications, making a decision on whether to issue the authorization, and preparing documentation of analyses, decisions, and authorizations for the application. The processing fee for the application shall be based only on costs that are necessary for processing the application. "Necessary for" means that but for the application, the costs would not have been incurred. The processing fee shall not include costs for studies for programmatic planning or analysis or other agency management objectives, unless they are necessary for processing the application. Proportional costs for analyses, such as capacity studies, that are necessary for the application may be included in the processing fee.

C. AGREEMENT

In consideration of the foregoing, the parties agree as follows:

1. Scope of Work. The Forest Service shall develop a scope of work for processing the application and an estimate of the agency's costs to process the application, which will be incorporated into this agreement as Appendix C. This scope of work shall report direct costs in categories that correspond to those in the agency's accounting system, e.g., job code, personnel compensation based upon the cost to the government (salary and benefits), travel, and other direct services, materials, and supplies. In addition, the estimate of the agency's processing costs shall include the agency's indirect costs based upon the approved annual indirect cost rate. Classification of costs as direct or indirect shall be in accordance with the published Forest Service budget for the applicable fiscal year.

2. Environmental Analysis. The Forest Service shall supervise the preparation of the environmental analysis associated with the application in compliance with applicable legal requirements, including public review of the analysis, analysis of public comments, and decision documentation. In exercising this responsibility, the Forest Service shall endeavor to foster cooperation among other agencies involved in the process, and to integrate National Environmental Policy Act requirements and other environmental review and consultation requirements to avoid, to the fullest extent possible, duplication of efforts by those agencies. However, the Forest Service shall not delegate to any other agency its authority over the scope and content of the environmental analysis, or approval or denial of the application.

3. Billing. The Forest Service shall bill the applicant prior to commencement of work. The applicant agrees to pay the estimated processing fee of $119,415.70. The bill for the estimated processing fee will be issued from the Forest Service Albuquerque Service Center once this agreement is executed.

4. Payment. The applicant shall pay the estimated processing fee within 30 days of the date the bill for the fee is issued. The Forest Service shall not initiate processing the application until the estimated processing fee is paid. If the applicant fails to pay the estimated processing fee or the fee is late, the Forest Service shall cease processing the application until the fee is paid.

5. Statement of Costs. The Forest Service shall annually report costs incurred for processing the application by providing a financial statement from the agency's accounting system to the applicant.

6. Underpayment. When the estimated processing fee is lower than the full actual costs of processing an application submitted under the Mineral Leasing Act, or lower than the full reasonable costs (when the applicant has not waived payment of reasonable costs) of processing an application submitted under other authorities, the applicant shall pay the difference between the estimated and full actual or reasonable processing costs within 30 days of billing.

7. Overpayment. If payment of the processing fee exceeds the full actual costs of processing an application submitted under the Mineral Leasing Act, or the full reasonable costs (when the applicant has not waived payment of reasonable costs) of processing an application submitted under other authorities, the Forest Service shall either (a) refund the excess payment to the applicant or (b) at the applicant's request, credit it towards monitoring fees due.

8. Disputes

a. If the applicant disagrees with the estimated dollar amount of the processing costs, the applicant may submit a written request before the disputed fee is due for substitution of alternative estimated costs to the immediate supervisor of the authorized officer who determined the estimated costs. The written request must include supporting documentation.

b. If the applicant pays the full disputed processing fee, the Forest Service shall continue to process the application during the supervisory officer's review of the disputed fee, unless the applicant requests that the application processing cease.

c. If the applicant fails to pay the full disputed processing fee, the Forest Service shall suspend further processing of the application pending the supervisory officer's determination of an appropriate processing fee and the applicant's payment of that fee.

d. The authorized officer's immediate supervisor shall render a decision on a disputed processing fee within 30 calendar days of receipt of the written request from the applicant. The supervisory officer's decision is the final level of administrative review. The dispute shall be decided in favor of the applicant if the supervisory officer does not respond to the written request within 30 days of receipt.

9. Lack of Administrative Appeal. A decision by an authorized officer to assess a processing fee or to determine the estimated costs is not subject to administrative appeal. A decision by an authorized officer's immediate supervisor in response to a request for substitution of alternative estimated costs likewise is not subject to administrative appeal.

10. Amendment. Modifications to this agreement shall be made in writing and shall be signed and dated by both parties.

11. Expiration and Termination. This agreement expires on 12/31/2013. Either party, in writing, may terminate this agreement in whole or in part at any time before it expires. The applicant is responsible for all Forest Service costs covered by this agreement that are incurred up to the date of expiration or termination.

12. Principal Point of Contact. The Forest Service and the applicant shall each establish a principal point of contact for purposes of this agreement.

The Forest Service's contact is Joe Holzinger, Project Manager, (661) 296-9710 x249.

The applicant's contact is Matthew R. Knudson, Engineering Manager, 661-456-1018.

This agreement is accepted subject to all terms and conditions.

DENNIS D.LAMOREAUX
GENERAL MANAGER
PALMDALE WATER DISTRICT

12/8/11
Date

WILBURN M. BLOUNT
DISTRICT RANGER
USDA, FOREST SERVICE

12/12/11
Date

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. The time required to complete this information collection is estimated to average 4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.

APPENDIX A

Applications and Authorizations Subject to this Agreement

Applications

SF 299, Application for Transportation and Utility Systems and Facilities on Federal Lands, on file at the Santa Clara/Mojave Rivers Ranger District Office, 33708 Crown Valley Road, Acton, CA 93510.

Authorizations

Upon completion of the review of Palmdale Water District's environmental documents, the Forest will be prepared to issue an Amendment, FS-2700-23, to Palmdale Water District's Special Use Permit, dated December 05, 1997, for the removal of accumulated sediment from the reservoir and construction of a grade control structure, or any alternatives to the project as determined through the NEPA process. The amendment will be issued under the authority of the Federal Land & Policy Management Act, as amended.

APPENDIX B

Description and Map of the Geographic Area

This project is located in the NE¼NW¼ of Sec. 3, T.4 N., R.11 W.; W½ of Sec. 34, T.5 N., R. 11 W.; SW¼SW¼ and SE¼SW¼ of Sec. 27, T.5 N., R.11 W., SBBM.

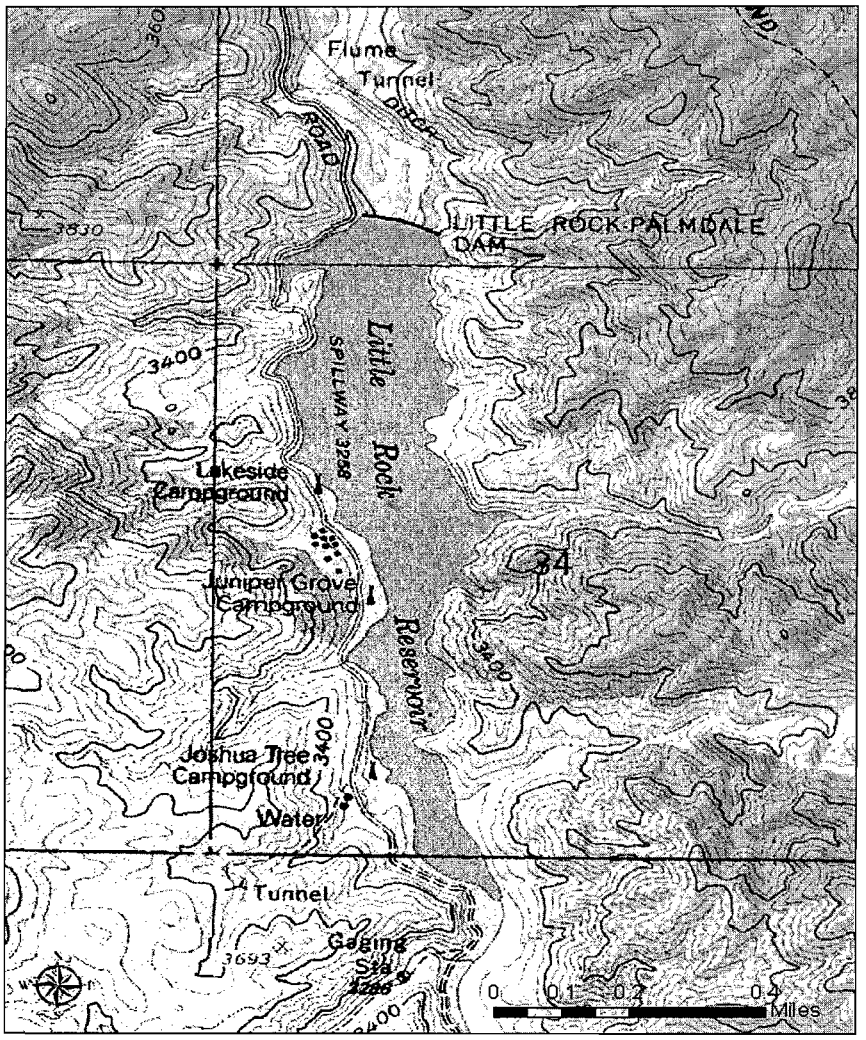

Figure 1: Little Rock Reservoir. Angeles National Forest.

APPENDIX C

Scope of Work

The study area is located at the Little Rock Reservoir within the Santa Clara/Mojave Rivers Ranger District of the Angeles National Forest. The reservoir is located on Little Rock Creek in the northeastern foothills of the San Gabriel Mountains on the western edge of the Mojave Desert. The purpose of the project is to remove accumulated sediment from the Little Rock Reservoir to provide greater water storage for the Palmdale Water District (PWD).

The reservoir, supplied by Little Rock Creek, was constructed in 1924 with an initial design capacity of 4,300 acre-feet. The capacity has been substantially reduced over time by the deposition of sediment behind the dam. By 1991, the capacity of the reservoir had been reduced by sediment deposition to approximately 1,600 acre-feet. As a result of the 1992 Little Rock Dam and Reservoir Restoration Project, the height of the dam was raised to increase the reservoir capacity by approximately 1,723 acre-feet with a surface area of nearly 100 acres. The current reservoir storage capacity is approximately 3,000 acre-feet. Preliminary calculations indicate that the reservoir capacity is further reduced at a rate of approximately 30 to 40 acre-feet per year.

Palmdale Water District proposes to remove approximately 540,000 cubic yards of sediment from the reservoir over a two year period. After the initial sediment removal phase, annual or semi-annual sediment removal of approximately 54,000 cubic yards would be required as ongoing maintenance depending on the mean annual sediment load that is carried into the reservoir during winter storms. In order to remove sediment without compromising upstream habitat for the arroyo toad and other aquatic organisms, the construction of a grade control structure is also proposed at Rocky Point, an area annually submerged below the typical high water mark of the reservoir. This structure would be at or below grade and would prevent head-cutting and the loss or modification of sediment levels in upstream areas. This would allow for continued use and operation of the Little Rock Reservoir.

In order for work to proceed, an Amendment to PWD's Special Use Permit must be issued to PWD for the removal of accumulated sediment from the reservoir and construction of a grade control structure. Before an Amendment can be issued, certifications from Forest biologists, botanists, hydrologists, and archeology staff must be in place before a Decision Memo can be signed by the Forest Supervisor, which in effect, becomes the foundation document for the issuance of the Amendment and authorizes the action to take place.

The Forest Service is the lead agency responsible for compliance with NEPA regulations. The proponent (PWD) is responsible for the preparation of the environmental impact statement (EIS), thereby converting PWD and USF&WS documents into the Forest Service format, updating species information, and addressing Management Indicator Species (MIS).

Outcomes:

- Compliance with NEPA regulations and agency policy.
- Compliance with the Forest's Land Management Plan.
- Compliance with Section 106 of the National Historic Preservation Act.

- Compliance with the Endangered Species Act.
- Amendment authorizing the removal of accumulated sediment from the reservoir and construction of a grade control structure, or other alternatives as determined through the NEPA process.

This information will be used to estimate the costs associated with the time needed to process the Amendment in accordance with Cost Recovery legislation.

The estimated costs as shown in Appendix D are anticipated to cover progress on the processing of the application for amendment, up to and including the release of a Draft EIR/EIS to the public. This was revised from the original estimate which included full processing of the application up to and including issuance of the permit amendment. The revision was made at the request of the Palmdale Water Company to lessen the amount of advance payment needed to proceed with processing the amendment. The parties agree to review status of funds and progress on processing the application approximately 6 months after cost recovery bill is paid. The purpose of this joint review will be to determine additional funding necessary to complete the processing of the application and issuing the amendment.

APPENDIX D

Cost Estimate

Attached

Processing	Amendment# : 2	Type of NEPA : EIS	
Item	**Item Description**	**Est. Hours**	
ARCHAEOLOGIST/CULTURAL RESOURCES	Review, consultation, inspection	280	
CASE MANAGER	Project Manager	500	
WILDLIFE BIOLOGIST	Review, consultation, inspection	280	
BOTANIST	Review, consultation, inspection	200	
ENGINEER/ENGINEERING TECH	Review, consultation, inspection	160	
HYDROLOGIST	Review, consultation, inspection	160	
LANDSCAPE ARCHITECT	Review, consultation, inspection	160	
RECREATION SPEC/TECH	Review, consultation, inspection	100	
NEPA COORDINATOR	Review, consultation, coordination	80	
RESOURCE CLERK/ASST/SPEC	Review, consultation, inspection	20	
OTHER SPECIALIST	Air Quality Specialist; Review, consultation	160	
	Total Hours :	**2100**	**Category :** 6

For Categories 5 or 6 Determine Estimated and Actual Costs:

Item	Item Description	Hourly Rate	Estimated Hours	Estimated Cost	Actual Hours	Actual Cost	Comments
ARCHAEOLOGIST/CULTURAL RESOURCES	Review, consultation, inspection	$53.83	280	$15,072.40		$0.00	
BOTANIST	Review, consultation, inspection	$43.88	200	$8,776.00		$0.00	
CASE MANAGER	Project Manager	$34.32	500	$17,160.00			
ENGINEER/ENGINEERING TECH	Review, consultation, inspection	$58	160	$9,280.00		$0.00	
HYDROLOGIST	Review, consultation, inspection	$59.22	160	$9,475.20		$0.00	
LANDSCAPE ARCHITECT	Review, consultation, inspection	$52	160	$8,320.00		$0.00	
NEPA COORDINATOR	Review, consultation, coordination	$53	80	$4,240.00		$0.00	
OTHER SPECIALIST	Air Quality Specialist; Review, consultation	$63.78	160	$10,204.80		$0.00	
RECREATION SPEC/TECH	Review, consultation, inspection	$44	100	$4,400.00		$0.00	
RESOURCE CLERK/ASST/SPEC	Review, consultation, inspection	$39.47	20	$789.40		$0.00	
WILDLIFE BIOLOGIST	Review, consultation, inspection	$44	280	$12,320.00		$0.00	
	Sub - Totals :		**2,100**	**$100,037.80**		**$0.00**	
Other Expenses	**Item Description**			**Estimated Cost**		**Actual Cost**	**Comments**

OTHER EXPENSE	OVERTIME	$9,600.00		**20 days @ $60.00 per hour**
VEHICLE	SITE VISITS, SURVEYS, MEETINGS	$1,550.00		**5000 miles @ $0.31 per mile**
	Sub - Totals :	**$11,150.00**		
	Totals :	**$111,187.80**	**$0.00**	
	Add Burden Rate : **7.4 %**	**$8,227.90**	**$0.00**	
	Grand Totals :	**$119,415.70**	**$0.00**	

Report Name: SPUCR10L
Report Title: **Estimation Sheet for Cost Recovery and/or Fee**
Run by: **JSEASTRAND**
Instance ID: **10602**
Instance Name: **Server**

Selected By

CN: 12511679010602

Sorted By

Note Table Used: II_SU_CR_FEES, II_SUF_CRS

End of Report

USDA

US FOREST SERVICE
BILL FOR COLLECTION

COPY

BILL DATE: 01/23/12 PAGE: 01

ENCLOSE A COPY OF THIS BILL WITH YOUR CHECK OR MONEY ORDER. DO NOT SEND CASH. PLEASE INCLUDE BILL NO. AND PAYER CODE ON YOUR CHECK.
MAKE CHECK PAYABLE TO:
US FOREST SERVICE

MAIL PAYMENT TO:

US FOREST SERVICE
C/O CITIBANK
P.O. BOX 301550
LOS ANGELES, CA 90030-1550

TO:

PALMDALE WATER DISTRICT
2029 EASST AVE Q

PALMDALE CA 93550

PAYER INDICATE AMOUNT ENCLOSED:

NET AMOUNT DUE: $ 119,415.70

DUE DATE: 02/22/12

BILL NUMBER: BA RACA2A00263

PAYER CODE: 956004540 A

AGREEMENT NO: 0501-12-MJ-981 CONTRACT NO:

DESCRIPTION: SCM101101; PALMDALE WATER DIST

REMARKS:
RE: PAYER CODE: 956004540 A BILL NO: BA RACA2A00263

NOTE:
PLEASE SEND ALL CORRESPONDENCE, INQUIRIES, AND CHANGE OF ADDRESS TO:

US FOREST SERVICE, ABQ SRV CTR
101B SUN AVE NE - RACA
ALBUQUERQUE, NM 87109
877-372-7248 BUDGET & FINANCE

PRINCIPAL:	$	119,415.70
INTEREST:		
ADMINISTRATIVE COSTS:		
PENALTY:		
AMOUNT DUE:	$	119,415.70
AMOUNT CREDITED:		
NET AMOUNT DUE:	$	119,415.70

FAILURE TO MAKE PAYMENT BY THE DUE DATE WILL RESULT IN THE ASSESSMENT OF LATE PAYMENT CHARGES (INTEREST, ADMINISTRATIVE COST, AND/OR PENALTY CHARGES) IN ACCORDANCE WITH YOUR CONTRACT, PERMIT, OR THE DEBT COLLECTION ACT OF 1982, AS AMENDED. POSTMARKS ARE NOT HONORED. LATE FEES DO NOT APPLY FOR BILLINGS IN ADVANCE OF RECEIPT OF GOODS OR SERVICES

LINE: 001 ORG: 0501 JOB: MJ298112

SCM101101; FS AGREEMENT NO.: 12-MJ-11050153-981
PRC: HOLZINGER, JOE 661 296-9710 JHOLZINGER@FS.FED.US
FS BILLING POC: ASC RACA 877-372-7248, #1
CR AGREEMENT / PALMDALE WATER DISTRICT

MJ2981
MJL
SPECIAL BILLING REQUEST C12: ALSO EMAILPRC JHOLZINGER@FS.FED.US

LINE	ORG	JOB	AMOUNT	LINE	ORG	JOB	AMOUNT	LINE	ORG	JOB	AMOUNT
001	0501	MJ298112	$ 119,415.70								