



DEPARTMENT OF
WATER RESOURCES

**Mojave Siphon Powerplant
Joint Agency Public Meeting**

**Draft Application for Exemption
for
Small Conduit Hydroelectric Facility**

July 11, 2013



Housekeeping

- ❖ Please note this meeting is being recorded
- ❖ Safety Moment – Please note the nearest exits
- ❖ Speaker cards are being provided for your use



Presenters

- ❖ **California Department of Water Resources,
Hydropower License Planning and Compliance
Office (HLPCO)**
 - ❖ **Gwen Scholl, Principal Engineer**
 - ❖ **Olivia Virgadamo, Senior Engineer**
 - ❖ **Lisa Lee, Environmental Scientist**

- ❖ **MWH**
 - ❖ **Barbara McDonnell, Environmental Scientist**



Goals of Today's Joint Agency Public Meeting

- ❖ Satisfy requirements under Federal Energy Regulatory Commission (FERC) regulations for a conduit exemption
- ❖ Inform the public of DWR's intent to pursue a conduit exemption for Mojave Siphon Powerplant
- ❖ Solicit input and address any concerns on the Mojave Siphon Powerplant Conduit Exemption
- ❖ Facilitate 1st stage of consultation required by FERC



3 Stage Consultation Process

- ❖ 1st stage of consultation
 - ❖ Distribute Initial Consultation Document (ICD)
 - ❖ Conduct joint agency public meeting
 - ❖ Receive and respond to comments on ICD
- ❖ 2nd stage of consultation
 - ❖ Conduct any necessary environmental studies
- ❖ 3rd stage of consultation
 - ❖ File application with FERC



Initial Consultation Document (ICD)

- ❖ Draft Application for Exemption for Small Conduit Hydroelectric Facility – Mojave Siphon Powerplant
 - ❖ Facility Description (Exhibit A)
 - ❖ Environmental Report (Exhibit E)
 - ❖ Project Boundary Map (Exhibit G)
 - ❖ Project Engineering Drawings (Exhibit F)
- ❖ Draft Application for Non-Capacity Amendment of License – South SWP Hydropower, FERC Project No. 2426



DEPARTMENT OF
WATER RESOURCES

**Mojave Siphon Powerplant
Conduit Exemption Application**

California State Water Project (SWP) Overview

**South SWP Hydropower
FERC Project No. 2426**



DEPARTMENT OF WATER RESOURCES

DWR's Mission: To manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments.

Key Goal in Support of DWR's Mission:

Plan, design, construct, operate, and maintain the State Water Project to achieve maximum flexibility, safety and reliability.



DEPARTMENT OF WATER RESOURCES

SWP Overview



- ❖ Nation's largest state owned and operated water delivery system
- ❖ Serves 23 million Californians and 755,000 acres of farmland
- ❖ Includes:
 - ❖ 34 storage facilities
 - ❖ 20 pumping plants
 - ❖ 4 pumping-generating plants
 - ❖ 5 hydroelectric power plants
 - ❖ About 700 miles of canals and pipelines
- ❖ California's fourth largest energy producer of hydropower



SWP's Multiple Benefits

In addition to water supply, benefits include:

- ❖ Flood control
- ❖ Recreation
- ❖ Environmental benefits
- ❖ Delta salinity control
- ❖ Power grid stability

South SWP Hydropower

FERC Project No. 2426





Check 66



Mojave Siphon Pipelines



Mojave Siphon Powerplant



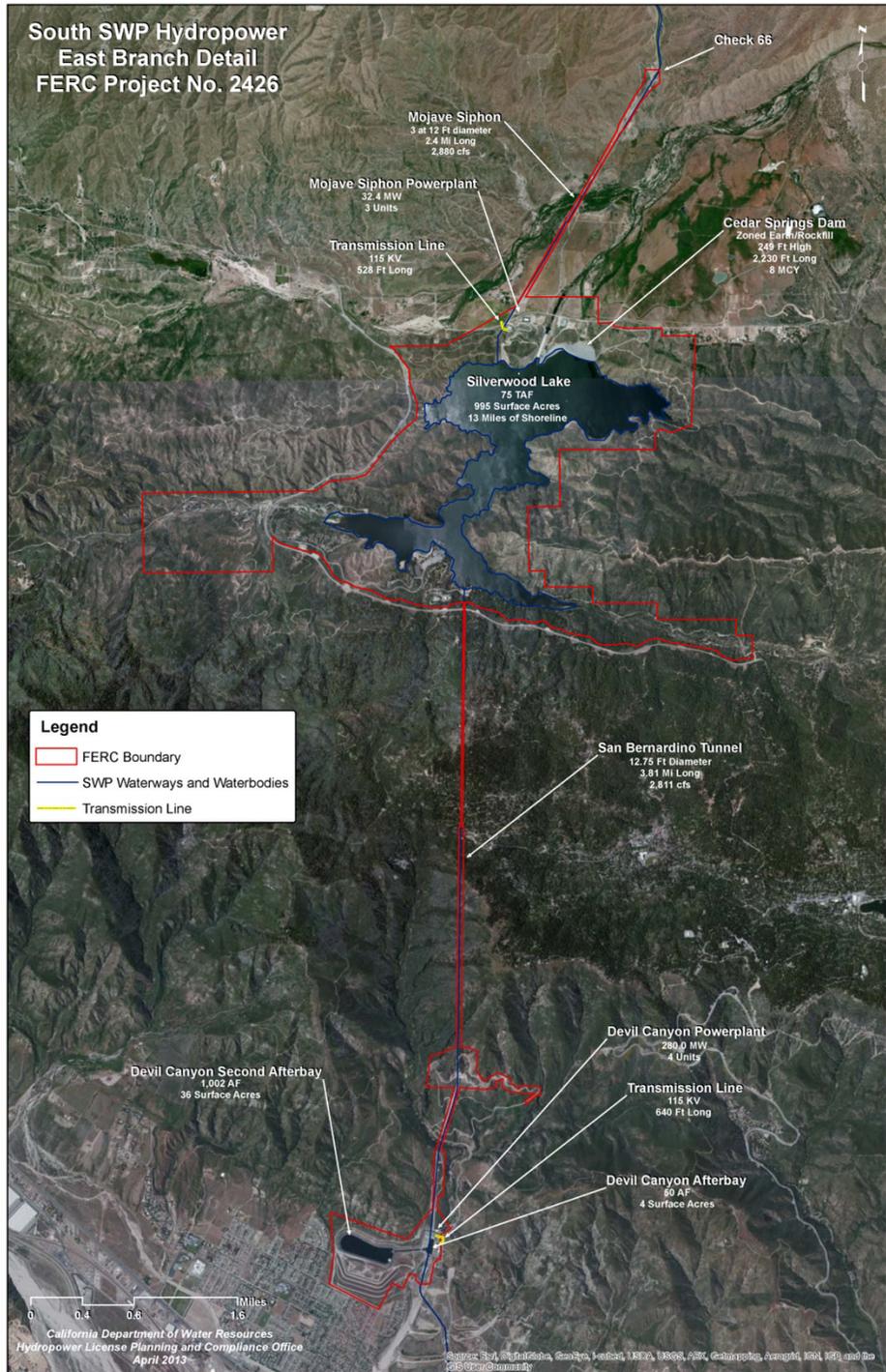
Cedar Springs Dam



Silverwood Lake



Devil Canyon Plant & AB





Why Pursue a Conduit Exemption?

- ❖ Opportunity for business efficiency through administrative change
- ❖ Authorization vehicle made available by FERC in 1980 following issuance of the license for FERC Project No. 2426
- ❖ Mojave Siphon Powerplant meets criteria for conduit exemption



DEPARTMENT OF
WATER RESOURCES

Mojave Siphon Powerplant Conduit Exemption Application Overview



What is a Conduit?

- ❖ Conduit ~ any man-made water conveyance
 - ❖ Operated for the distribution of water for agricultural, municipal, or industrial consumption
 - ❖ Not primarily for the generation of electricity



What is a Conduit Exemption?

- ❖ Issued in perpetuity
- ❖ 40 megawatts or less
- ❖ Power facility located entirely on Non-Federal lands
- ❖ Subject to mandatory Fish and Wildlife conditions (under Federal Power Act Section 30(c)), if applicable
- ❖ Boundary is around powerhouse facility
- ❖ Typically associated with new construction
- ❖ Still under FERC jurisdiction and regulatory oversight
- ❖ Regulatory vehicle to promote small hydropower – a source of renewable green energy



Conduit Exemption Application

- ❖ **Facility Description (Exhibit A)**
- ❖ **Environmental Report (Exhibit E)**
- ❖ **Project Boundary Map (Exhibit G)**
- ❖ **Project Engineering Drawings (Exhibit F)**
 - ❖ **Protected technical details regarding the facility**



DEPARTMENT OF
WATER RESOURCES

**Mojave Siphon Powerplant
Conduit Exemption Application**

Overview

Facility Description (Exhibit A)

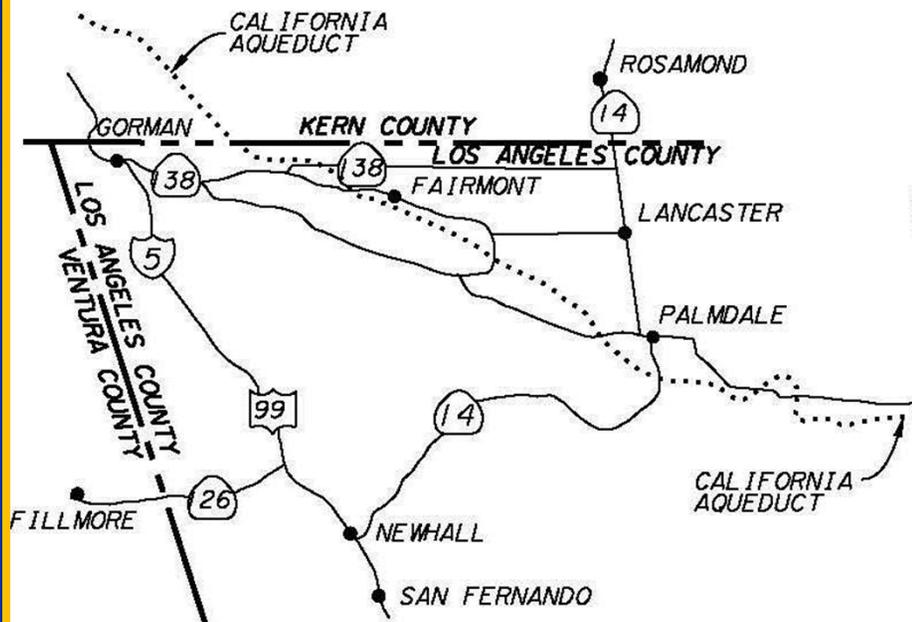
&

Project Boundary Map (Exhibit G)



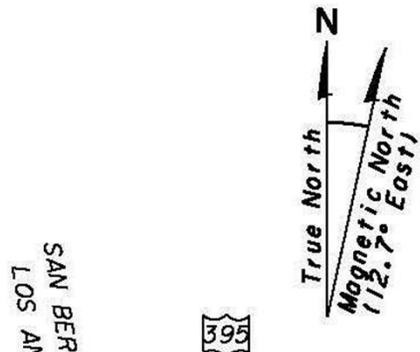
DEPARTMENT OF
WATER RESOURCES

Mojave Siphon Powerplant Conduit Exemption Application



VICINITY MAP

NO SCALE

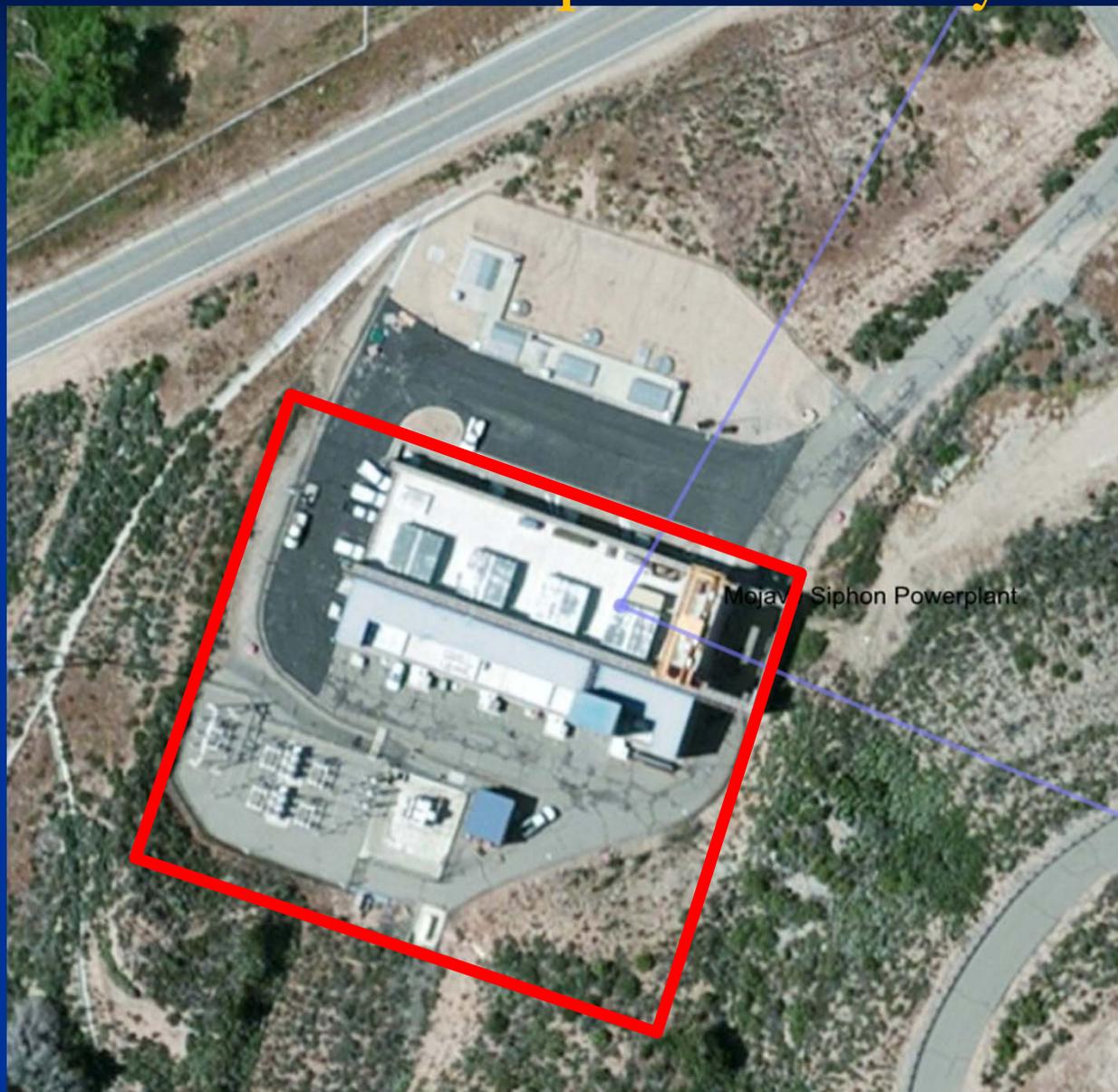




Mojave Siphon Powerplant

- ❖ Existing licensed facility of FERC Project No. 2426, East Branch
- ❖ Completed and in operation since 1995
- ❖ 34.2 megawatt facility, 3 units
- ❖ Located on land owned in fee by DWR
- ❖ No dam associated with and no water is impounded for powerplant operation
- ❖ Located on the pipeline of the SWP aqueduct, in-line facility
- ❖ Flow entering and leaving facility is determined by SWP operations

Mojave Siphon Powerplant Conduit Exemption Boundary





DEPARTMENT OF
WATER RESOURCES

**Mojave Siphon Powerplant
Conduit Exemption Application**

Overview
Environmental Report
(Exhibit E)



Environmental Report (Exhibit E)

Discusses the following environmental areas:

- ❖ **Vegetative Resources**
- ❖ **Fish and Wildlife Resources**
- ❖ **Water Quality and Quantity**
- ❖ **Land and Water Uses**
- ❖ **Recreational Uses**
- ❖ **Socio-Economic Conditions**
- ❖ **Historical and Archaeological Resources**
- ❖ **Visual Resources**



Vegetative and Visual Resources – Surrounding Area

- ❖ Unincorporated San Bernardino County
- ❖ Surrounding vegetation includes (but not limited to) chaparral and desert scrub
- ❖ Riparian vegetation along Horsethief Creek approx. 0.5 miles from powerplant
- ❖ Silverwood Lake located south above powerplant
- ❖ West Fork Mojave River on northern side

View of surrounding
vegetation.





Vegetative and Visual Resources

- ❖ Powerplant located in scenic area
 - ❖ Summit Valley
 - ❖ Horsethief Creek
 - ❖ Mojave River
 - ❖ San Bernardino National Forest
 - ❖ Silverwood Lake
 - ❖ Pacific Crest Trail (PCT)
- ❖ California SWP facilities visible from various locations along SR 173, SR 18, and PCT along SR 173
- ❖ Powerplant and majority of surrounding fence painted in colors to match the surrounding desert environment



View of Mojave Siphon Powerplant from Pacific Crest Trail along State Route 173.



Vegetative and Visual Resources – Conduit Exemption Boundary

- ❖ Encompasses powerplant and small portions of adjacent land owned in fee by DWR
- ❖ Existing developed facility
- ❖ Site is paved and fenced with extensive cut and fill

Facilities located within proposed conduit exemption boundary.





Vegetative and Visual Resources

- ❖ California Native Plant Society (CNPS) California Native Plant Inventory of Rare and Endangered Plants (May 2013)
- ❖ 16 plant species in Silverwood Lake 7.5' quad within CNPS inventory

Plant species	CNPS Rank
California androsace	4.2
Mexican mosquito fern	4.2
Ocellated Humboldt lily	4.2
Plummer's mariposa lily	4.2
White pygmy-poppy	4.2
Duran's rush	4.3
Mojave paintbrush	4.3
Southern Sierra woolly sunflower	4.3
Mojave phacelia	4.3
Chickweed oxytheca	4.3
Palmer's mariposa lily	1B.2
San Bernardino aster	1B.2
San Bernardino Mountains owl's-clover	1B.2
Short-joint beavertail	1B.2
Southern mountains skullcap	1B.2
Fremont's gentian	2B.3

4.2: Uncommon in California; :2: Fairly endangered in CA
4.3: Uncommon in California; :3: Not very endangered in CA
1B.2: Rare, threatened, or endangered in California and elsewhere; :2: Fairly endangered in CA
2B.3: Endangered in California; :3: Not very endangered in CA



Vegetative and Visual Resources – Conduit Exemption Boundary

- ❖ No effect to plant species within CNPS inventory, or state and federal protected plant species
- ❖ No proposed construction or changes in existing operations (change in authorization)
- ❖ No changes in vegetation or visual resources from continued operation and maintenance activities
- ❖ No effect to vegetative and visual resources



Fish and Wildlife Resources – Surrounding Area

- ❖ Wildlife in vicinity includes typical desert scrub native and non-native species including but not limited to:

Western rattlesnake

Gopher snake

Sagebrush lizard

Ground squirrels

Bull frog

Beaver

Turkey vulture

Mallard duck

Common raven

General passerines

Western gull

Mule deer

Coyote



Fish and Wildlife Resources – Conduit Exemption Boundary

- ❖ U.S. Fish and Wildlife Service (USFWS) species lists
- ❖ California Department of Fish and Wildlife's California Natural Diversity Database
- ❖ Special-status species in general area, but none are anticipated in conduit exemption boundary
- ❖ No USFWS-designated critical habitat for special-species
- ❖ No riparian, wetland or sensitive habitats present
- ❖ Highly disturbed – little vegetation to provide suitable habitat for native wildlife species



Fish and Wildlife Resources

- ❖ In addition to FERC regulatory oversight, existing adopted policies and procedures in place for complying with the California Environmental Quality Act (CEQA), and consulting with appropriate state and federal resource agencies for any proposed future construction and major maintenance activities
- ❖ No proposed construction or change in existing operations
- ❖ No effect to fish and wildlife resources



Water Quality and Quantity

- ❖ **Run-of-aqueduct basis – California SWP flows enter Mojave Siphon Powerplant facilities and returned to California SWP (Determined by SWP operations)**
- ❖ **1,199 cfs of annual average flow for energy generation – approximately 65 million kWh (2002 - 2011 annual flow and generation records)**
- ❖ **No natural water bodies or streams in conduit exemption boundary – Horsethief Creek (nearest natural drainage) is approximately 0.5 mile away**
- ❖ **No proposed construction or changes to existing operations**
- ❖ **No change to existing water quality and quantity**
- ❖ **No effect to water quality and quantity**



Land and Water Uses

- ❖ **Summit Valley, Desert Planning Region**
- ❖ **Zoned as Institutional land**
- ❖ **Surrounded by private ranch lands and state owned right of ways**
- ❖ **No federal lands affected**
- ❖ **Land owned in fee by DWR**
- ❖ **No construction or changes in existing operations**
- ❖ **No effect to land or water uses**



Recreational Uses

- ❖ Mojave Siphon Powerplant and adjoining lands not suitable for public recreation use
- ❖ Public recreation opportunities in vicinity includes the Silverwood Lake State Recreation Area (not part of conduit exemption boundary)
- ❖ No existing recreational uses in conduit exemption boundary
- ❖ No effect to recreational uses



Socio-Economic Conditions

- ❖ Facility supports 8 full-time positions
- ❖ Minor contribution to local economy
- ❖ No housing, commerce, or any other public use associated with Mojave Siphon Powerplant
- ❖ No impacts to socio-economic conditions of the surrounding area



Historical and Archaeological Resources

- ❖ **Constructed and in operation since 1995**
- ❖ **Not National Register of Historic Places eligible**
- ❖ **Sensitive regional archaeological setting**
- ❖ **No sites discovered during construction**
- ❖ **Not likely to discover sites in the future**



Native American Consultation

- ❖ **Fernandeno Tataviam Band of Mission Indians**
- ❖ **AhaMaKav Cultural Society Fort Mojave Indian**
- ❖ **Morongo Band of Mission Indians**
- ❖ **Ramona Band of Cahuilla Mission Indians**
- ❖ **San Fernando Band of Mission Indians**
- ❖ **San Manuel Band of Mission Indians**
- ❖ **Serrano Nation of Mission Indians**



State of California Cultural Resources Protections

- ❖ California Environmental Quality Act (CEQA)
- ❖ Governor's Executive Order on Tribal Consultation
- ❖ Natural Resources Agency Tribal Consultation Policy
- ❖ Protection of Historic Resources (PRC 5024.5)
- ❖ Protection of Native American Religion and Places (PRC 5097.95-99)
- ❖ Protection of Human Remains (H&SC 7050.5)
- ❖ State law protects historic and archaeological resources



CEQA Requirements for Conduit Exemption

- ❖ **DWR considered the environmental impacts and determined that the issuance of a conduit exemption (change in authorization) for the Mojave Siphon Powerplant is exempt under a Class 1 Categorical Exemption (existing facilities)**
- ❖ **A Notice of Exemption (NOE) was filed with the State Clearinghouse on June 24, 2013**



Environmental Report Key Points

- ❖ **Conduit exemption boundary encompasses Mojave Siphon Powerplant and minor portions of adjacent lands owned in fee by DWR**
- ❖ **Powerplant is an existing developed facility**
- ❖ **No proposed construction or changes in existing operations**
- ❖ **No historic or archaeological resources present**
- ❖ **No effect to natural or cultural resources, or existing environmental conditions**



Environmental Report Key Points

- ❖ **Conduit exemption involves a change in authorization**
- ❖ **Still under FERC regulatory oversight**
- ❖ **Existing procedures and policies in place for CEQA compliance and consulting with state and federal resource agencies for any proposed future construction and major maintenance activities**



3 Stage Consultation Process

- ❖ **1st stage of consultation**
 - ❖ **Distribute ICD**
 - ❖ **Conduct joint agency public meeting**
 - ❖ **Receive and respond to comments on ICD**
- ❖ **2nd stage of consultation**
 - ❖ **Conduct any necessary environmental studies**
- ❖ **3rd stage of consultation**
 - ❖ **File application with FERC**



Waiver of 2nd Stage of Consultation

- ❖ 2nd stage of consultation is necessary when natural resource issues need to be resolved or additional studies need to be conducted
- ❖ 18 CFR § 4.38 (e) – waiver of consultation requirements



Waiver of 2nd Stage of Consultation

- ❖ Powerplant is an existing facility
- ❖ No proposed construction or changes in existing operations
- ❖ No effect to natural or cultural resources
- ❖ No studies necessary – since no changes will occur
- ❖ DWR requests approval to waive 2nd stage of consultation
- ❖ Deadline for waivers September 9, 2013



Waiver of Fees from Fish and Wildlife Agencies

❖ Federal Power Act

- ❖ Section 30(c) – Set mandatory terms and conditions for fish and wildlife**
- ❖ Section 30(e) – State and Federal fish and wildlife agencies may be eligible for reimbursement of costs to set mandatory terms and conditions**



Waiver of Fees from Fish and Wildlife Agencies

- ❖ Powerplant is an existing facility
- ❖ No effect to fish or wildlife
- ❖ Do not anticipate any terms or conditions from fish and wildlife agencies
- ❖ DWR requests agencies to waive the fees
- ❖ Deadline for waivers September 9, 2013



Conduit Exemption Associated License Amendment

- ❖ Removes Mojave Siphon Powerplant from FERC Project No. 2426 License
- ❖ Removes/Replaces Associated Exhibits
- ❖ Revises FERC Project No. 2426 License Boundary
- ❖ Reverts boundary to pre-facility addition to FERC Project No. 2426 license



Key Points

- ❖ **Powerplant is an existing developed facility**
- ❖ **Meets FERC conduit exemption criteria**
- ❖ **Small hydropower facility that provides renewable green energy**
- ❖ **Conduit exemption typically associated with new construction; however, this conduit exemption involves a change in authorization**
- ❖ **No proposed construction or changes in existing operations**



Key Points (continued)

- ❖ **No historic or archaeological resources present**
- ❖ **No effect to natural or cultural resources, or existing environmental conditions**
- ❖ **Still under FERC regulatory oversight**
- ❖ **Existing DWR policies and procedures require CEQA compliance, and consulting with state and federal resource agencies for any proposed future construction and major maintenance activities**



What is Next?

- ❖ **September 9, 2013** – Deadline for public comments and waivers
- ❖ **Please send comments to:**
 - Mr. Ted Craddock, Chief**
 - Hydropower License Planning and Compliance Office**
 - California Department of Water Resources**
 - P.O. Box 942836**
 - Sacramento, California 94238-0001**
- ❖ **Mail waivers to DWR**



DEPARTMENT OF
WATER RESOURCES

**Mojave Siphon Powerplant
Conduit Exemption Application**

Thank you for attending.

Questions and comments are welcome.

Olivia Virgadamo, Senior Engineer

Email: Olivia.Virgadamo@water.ca.gov

Phone: (916) 263-0359