

DOCKETED

Docket Number:	97-AFC-01C
Project Title:	High Desert Power Plant
TN #:	213738
Document Title:	Upper Mojave River Groundwater Regional Recharge and Recovery Environmental Assessment
Description:	N/A
Filer:	Deric Wittenborn
Organization:	Ellison, Schneider & Harris LLP
Submitter Role:	Applicant
Submission Date:	9/20/2016 11:59:23 AM
Docketed Date:	9/20/2016

RECLAMATION

Managing Water in the West

National Environmental Policy Act
FINDING OF NO SIGNIFICANT IMPACT

COPY
ORIGINAL

No. 10-SCAO-002-FONSI

Upper Mojave River Groundwater Regional Recharge and Recovery Project
and
Oro Grande Groundwater Recharge Project
San Bernardino County, California

The Bureau of Reclamation (Reclamation) is providing American Recovery and Reinvestment Act (ARRA) funds to the Mojave Water Agency (MWA) to implement two components of their Integrated Regional Water Management Plan in San Bernardino County, California. The projects will install groundwater wells, pipelines, reservoir storage tanks, a pump station, and a chlorination facility for aquifer storage and recovery using California State Water Project supplies and the Mojave River groundwater basin.

Financial assistance agreements have been prepared for the Oro Grande Groundwater Recharge Project (Oro Grande Project) and for the first phase of the Upper Mojave River Groundwater Regional Recharge and Recovery Project (R³ Project). Additional phases of the R³ Project may be funded in the future.

Based on our review of the attached Environmental Assessment (EA) and other supporting documents including an Environmental Impact Report (EIR), State Clearinghouse No. 2005041103, prepared under the California Environmental Quality Act (CEQA), we have determined that the proposed action does not constitute a major Federal action which would significantly affect the quality of the human environment within the meaning of Section 102(2) (C) of the National Environmental Policy Act of 1969 (NEPA). Accordingly, preparation of an environmental impact statement on the proposed action is not required.

Recommended:



Doug McPherson, Environmental Protection Specialist

Date:

12/9/09

Reviewed By:

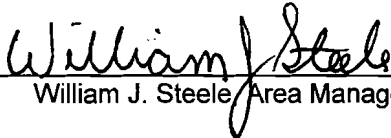


Dennis Wolfe, Area Engineer

Date:

12-9-09

Approved:



William J. Steele, Area Manager

Date:

12-9-09



U.S. Department of the Interior
Bureau of Reclamation
Lower Colorado Region
Southern California Area Office
Temecula, California

BACKGROUND

The R³ Project and Oro Grande Project are components of an Integrated Regional Water Management Plan prepared by MWA in 2004. The projects will allow MWA to conjunctively manage the Upper Mojave River Groundwater Basin using its allocation from the California State Water Project (SWP). MWA is one of 29 State Water Contractors, and is entitled to receive an annual allotment of 75,800 acre feet of water.

The ultimate capacity of the R³ Project will allow recharge and extraction of up to 40,000 acre-feet per year (AFY). Cooperative Agreement No. R09AC35R15 provides funds for the initial phase of the R³ Project, with a capacity of 15,000 acre feet per year (AFY). Grant Agreement No. R09AP35R21 will fund the Oro Grande Project, allowing up to 8,000 AFY of recharge with recovery from existing wells. Both agreements are funded by supplemental appropriations under ARRA. Funding for additional phases of the R³ Project will depend on future appropriations by the Congress.

Environmental effects for both projects were evaluated under the California Environmental Quality Act (CEQA) in an Environmental Impact Report (EIR) for the Mojave Water Agency Water Supply Reliability and Groundwater Replenishment Program (SCH No. 2005041103). The EIR concluded that construction emissions may exceed regional air quality district thresholds but otherwise found that the projects would not cause substantial adverse effects. Mitigation measures were made a condition of approval.

PURPOSE AND NEED

Local aquifers in the Mojave groundwater basin are in overdraft. MWA is entitled to receive an annual allotment of 75,800 acre feet of SWP water via the California Aqueduct, but lacks the infrastructure to make full use of this entitlement. The groundwater basin is adjudicated. The Court ordered MWA to seek sources of water, including supplemental water.

The projects are intended to allow MWA to become less dependent on supplies from the SWP during drought periods or when the Sacramento Delta is under increased stress. MWA is transforming SWP water into a more reliable, sustainable water source that local water retailers can rely upon as a consistent blending source for their impaired groundwater supplies. The R³ project will also allow MWA to:

- Store SWP water in the Upper Mojave River groundwater basin and extract and deliver this stored water, when needed, to water retail providers for their use, including blending with other groundwater sources that are naturally impaired;
- Build a sustainable water delivery system that provides long-term benefits to the local area.

The supplemental water will provide replenishment of groundwater to the overdrafted Regional Aquifer in the Upper Mojave River Basin. The Project will give MWA the flexibility to take water when it is available from the SWP and placed in an area where it can be readily used and banked. This excess banked water will be utilized during local drought years or years when imported water supply is less than demand. The local water supply will benefit from higher groundwater levels. A local higher water table with the Project will decrease pumping lifts and locally reverse the effects of long term overdraft of the groundwater.

AUTHORITIES

Division C, Section 214 of Public Law (PL) 110-161, Consolidated Appropriations Act, 2008, amended the Reclamation Wastewater and Groundwater Study and Facilities Act (Title XVI of PL102-575) by adding section 1641 "Southern California Desert Region Integrated Water and Economic Sustainability Plan." The Secretary of Interior is authorized to participate in design, planning, and construction of projects to implement the Mojave Water Agency's Integrated Regional Water Management Plan (43 USC 390h-23).

Section 9504 of Public Law 111-11, the Omnibus Public Land Management Act of 2009, authorizes the Secretary of Interior to provide grants or enter into agreements with eligible applicants to assist in the planning, designing, or constructing any improvement to conserve water, increase water use efficiency, facilitate water markets, enhance water management, including increasing the use of renewable energy in the management and delivery of water, or accelerate the adoption and use of advanced water treatment technologies to increase water supply.

PROJECT DESCRIPTION

MWA's boundaries encompass approximately 4,900 square miles of the High Desert in San Bernardino County, California. The projects are located in the upper Mojave River Basin.

Oro Grande Recharge:

Grant Agreement No. R09AP35R20 provides Challenge Grant ARRA funds to develop a turnout system with meter, valve, and screening structures adjacent to the California Aqueduct near State Highway 395, near the City of Adelanto and to install approximately 16,000 feet of 30-inch diameter pipeline along existing roads to the new groundwater recharge basins in the Oro Grande Wash.

The project will connect to an existing turnout and siphon in the East Branch California Aqueduct near the City of Adelanto. State Project Water would be introduced into the turnout through an existing siphon located along the California Aqueduct. An underground 30 inch pipeline 16,000 feet in length will be installed to new groundwater recharge basins located adjacent to the Oro Grande Wash. The pipeline will be located almost entirely within existing road rights-of-way. The Project includes several recharge ponds, a control facility, and outlet structures on a ten acre site.

Recharge ponds will be constructed in the bottom of the Oro Grande Wash downstream of the California Aqueduct. Ponds will be constructed in a series of stepped ponds by scraping the sandy soil from the bottom of the wash and along the lower slopes, pushing it up into a mound across the bottom of the wash. Mounds would be about 5 feet in height, but would vary depending on the slope of the channel. At the downstream end, mounds may be slightly higher than 5 feet. The interconnected mounds will have small sand-bag-lined notches in them to allow water to safely pass over them and flow into the next pond. Recharged water would be extracted using existing wells in the recharged area.

Upper Mojave River Groundwater Regional Recharge and Recovery:

Cooperative Agreement No. R09AC35R15 provides Title XVI ARRA funding to implement the first phase of the R³ Project, with an initial capacity of 15,000 AFY. The first phase consists of the following components:

- South of Rock Springs Pipeline: approximately 8,045 feet of pipeline to transport water to the recharge facilities
- Recovery Facilities: 6 fully equipped extraction wells with approximately 7,100 feet of pipeline
- East Conveyance Pipeline: approximately 2,600 feet of pipeline
- West Conveyance Pipeline: approximately 33,200 feet of pipeline
- Pipeline Turnouts: 4 turnouts
- Pump Station and Reservoir: 1,800 horsepower pumps and 2.65 gallon storage reservoir
- Electrical and Control Systems
- Disinfection Facilities: a chlorine treatment building

The ultimate capacity of the R³ Project will be 40,000 acre-feet per year (AFY). The ultimate R³ Project includes recharge basins, 15 miles of pipelines, pumps and reservoir, 20 wells, and 6 turnouts. The facilities will be capable of storing the water when it is available from the State Water Project, which is usually only 9 months of the year. The recovery system will be capable of pumping sufficient water from the aquifer to meet demands year round. Water from the State Water Project is of high quality; it will be used to blend with water from other local aquifers that may be naturally impaired. The improved quality of the blended water will allow its use for potable purposes.

The R³ Project includes seven primary components: (1) recharge facilities; (2) ground water wells; (3) conveyance pipelines (east and west); (4) pipeline turnouts; (5) booster pump station and storage reservoir; (6) electrical and SCADA; and (7) central disinfection system.

Recharge Facilities

Recharge basins located within and adjacent to the Mojave River will be constructed to percolate an average of 40,000 acre-feet of SWPW annually, over a 9-month period. The first phase of the Project, it is anticipated that an average of 15,000 acre-feet will be percolated annually over a 9-month period.

Ground Water Wells

Up to twenty (20) ground water wells will be constructed downstream of the recharge basins for the purpose of extracting stored water from the basin. Six (6) extraction wells are anticipated to be

constructed for the first phase of the project. The locations and capacities of these wells were determined from a previously completed geo-hydrologic study. Well capacities are expected to range from approximately 1,600 gallons per minute (gpm) to over 2,000 gpm.

Conveyance Pipelines

The conveyance pipeline will deliver ground water from the well field area to retail water providers' systems. The conveyance pipeline ranges in size from 24- to 42-inches. The conveyance pipeline has been sized for the ultimate flow. Additional turnouts with lateral piping will be added after Phase 1 to complete the ultimate project.

Pipeline Turnouts

At each connection point to the water retailers' systems, a turnout facility consisting of a flow control valve, meter, isolation valves, and appurtenances will be provided. Each turnout facility will be housed within a building. Some turnout facilities also include a disinfection system to boost chlorine residuals to match the retain water provider's other water supply sources.

Booster Pump Station and Storage Reservoir

Because water from the Project is served over a large geographic area, and because of the large volume of water being served, it is necessary to provide both storage and booster pumping to regulate flow and provide adequate pressure at the points of delivery. Ultimately, two reservoirs will be needed to regulate flows in the lower portion of the system (designated as Zone 1). One of these reservoirs will be constructed as part of the first phase of the Project. A pump station will boost water from Zone 1 into Zone 2. The pump station site and building will be built to full capacity, with spare pump cans and empty motor control centers to be added after the first phase.

Electrical and SCADA

A centralized SCADA system will be constructed at MWA operations headquarters to remote monitor and control the Project system. In addition, electrical controls and devices will be required at each facility to locally monitor and control individual facilities. Power supply will also be required for each well and pump station facility.

Central Disinfection System

A central disinfection facility will be provided to comply with the State of California Department of Public Health requirements for drinking water.

ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENT

NEPA requires review of a proposed Federal action to determine its impact on the human environment. Council on Environmental Quality (CEQ) regulations 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 (40 CFR 1506.2). Department of Interior regulations for implementing NEPA encourage tiering of environmental documents and provide for adoption of existing environmental documents if, upon evaluation by a responsible official, it is found to comply with relevant provisions of the CEQ regulations.

In accordance with CEQ regulations for implementing the procedural requirements of NEPA, Reclamation staff reviewed the EIR and supporting information and concluded that the CEQA documents adequately identify and disclose the reasonably foreseeable environmental effects of the proposed action. We adopt these documents in accordance with CEQ regulations (40 CFR 1506.3) and Department of the Interior regulations for implementing NEPA (43 CFR 46.320(a)). MWA consultants also prepared the attached Environmental Assessment (EA), based on the information in the CEQA documents.

FINDINGS

The proposed action will not create substantial adverse effects to the human environment. Negative environmental impacts that could occur are negligible to moderate, and could occur in the short or long. No significant unmitigated adverse impacts on public health, public safety, threatened or endangered species, historic properties, or other unique characteristics of the region have been identified as a result of analysis of the proposed action. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the proposed action will not violate any federal, state, or local environmental protection law.

Air Quality

An Air Quality Conformity Analysis was prepared and is attached to the EA. The EIR concluded that simultaneous construction of facilities may exceed regional air district thresholds for nitrogen oxides (NOx) and 10-micron particulate (PM₁₀) emissions. A finding of significant impact was made and a Statement of Overriding Considerations was adopted under CEQA. Using an incremental construction schedule is expected to significantly reduce emissions for all criteria pollutants resulting from construction except PM₁₀. Construction phase air emissions is unlikely to exceed *de minimis* thresholds for Federal Clean Air Act conformity applicability at 40 CFR 93.153 (b). No conformity determination is required.

Energy

Use of the Mojave River for recharge on an annual basis will optimize MWA's ability to take water in the March-through-July period in wet years, when hydropower is most available. The new well field will replace older wells currently in use with more efficient wells. The project will raise groundwater levels at the boundary of the Mojave River Floodplain Aquifer and the Regional Aquifer, reducing energy use for extraction.

Wetlands and Floodplains

The R3 Project and the Oro Grande Project will not affect wetland habitats.

Several R³ Project components will be within a Federal Emergency Management Agency (FEMA) Zone A Floodplain in and along the Mojave River. The South of Rock Springs Pipeline will be within the 100-year floodplain to connect with the Rock Springs Turnout on the existing Morongo Basin Pipeline located within the FEMA Floodplain. The R³ conveyance pipeline will cross the flood zone to connect to the disinfection facility. Some well sites and collection pipelines may also be within the floodplain.

MWA will coordinate with the County Flood Control District and local flood control officials during design to ensure that facilities within a flood zone do not conflict with Master Plans of Drainage and County/Local flood management. All necessary permits will be requested from the Flood Control District and U.S. Army Corps of Engineers. MWA will inform County Flood Control of any substantial changes in the project.

The R³ Project appears substantially compliant with Executive Order No. 11988. Berms of the recharge basins are constructed to wash out during flood flows. Project facilities will not result in an increase in flood velocity or flood elevation. The project will not facilitate urban development in a floodplain. No practicable alternatives to avoid the floodplain were identified. Oro Grande Project components are not in a FEMA Zone A Floodplain and will not impede or interfere with flood flows.

Installation of project components within the Mojave River, Oro Grande Wash and other drainages tributary to the Mojave River defined as waters of the United States are under the jurisdiction of the Army Corps of Engineers (Corps) pursuant to section 404 of the Clean Water Act. MWA has applied to the Corps for a Nationwide Permit to construct components of the R³ Project (SPL-200900813). Permit application for the Oro Grande Project has not yet been submitted.

Water Resources and Hydrology

The proposed action will comply with National Drinking Water Standards and Basin Plan water quality objectives. State Water Project supplies will vary in quality compared to indigenous groundwater, but the net effect of recharge is expected to improve groundwater quality. Runoff from construction sites will be addressed by the preparation and implementation of a Storm Water Pollution Prevention Plan.

Adverse impacts to water quality that could occur during pipeline installation due to spills, accidents, or negligence will be avoided with the implementation of Best Management Practices. A National Pollution Discharge Elimination System construction storm water permit and Storm Water Pollution Prevention Plan will be required prior to construction. No significant water quality impacts related to construction or operation of the proposed project have been identified.

MWA has applied to the Regional Water Quality Control Board, Lahontan, Region 6, for Water Quality Certification under section 401 of the Clean Water Act.

Earth Resources

During construction potential soil erosion may occur from precipitation and runoff from the construction site. Best management practices were incorporated into proposed project to reduce the potential for erosion. Operation of the facilities indicated in the proposed action is not expected to have a significant impact on earth resources. The proposed action has a low potential to increase risks associated with liquefaction in the floodplain adjacent to the river. Berm failure is unlikely, and water leaking from a failed berm would spread across the flat plain and percolate into the river.

Land Use

Construction and operation of facilities proposed in the proposed action will not conflict with land use planning or affect active agricultural lands or areas designated for regional conservation under the *West Mojave Management Plan*.

Prime and Unique Farmlands

The proposed action will not impact prime or unique farmlands. No farmland will be converted to a non-agricultural use. Prime and Unique farmland adjacent to the Mojave recharge area will be avoided. No prime or unique farmland is mapped surrounding the Oro Grande Project.

Recreation

Facilities will be sited to minimize potential construction and operation effects on recreation along the east side of the river, which include trout fishing ponds and the Jess Ranch Country Club.

Noise

The proposed action involves construction of temporary sand berms in the Mainstem Mojave River during several weeks each year. Construction will occur upstream of Rock Springs and in areas where the channel is 600 to 2,000 feet wide. Rural residential land surrounds this area, with approximately 50 residences within 100 feet of the river channel. Berm construction would be focused on the mid-channel area. Construction equipment will cross the river approximately 200 feet from adjacent development. The construction of these berms would generate noise levels of 70 dBA when it is closest to adjacent development and would average a noise level of 64 dBA, which is the noise equivalent to heavy traffic.

Socio-economic

Adverse socio-economic impacts are not expected. The project is not expected to induce population growth. No effects to public health and safety were identified. Economic or social effects are not intended by themselves to require preparation of an EIS (40 CFR 1508.14)

Environmental Justice - Environmental justice issues have not been identified regarding this project. The proposed project will not disproportionately impact economically disadvantaged or minority populations.

Transportation

The well field and delivery pipelines will be installed on the west side of the Mojave River, along Carob, Orchid, and Choiciana Avenues in Hesperia and along Jess Ranch Parkway and across undeveloped lands to the south of the Jess Ranch Country Club. Wells may be installed along the undeveloped portion of the floodplain downslope from Orchid Street south along Wilson Road. Other pipeline alignments will occur within several two-lane local streets. Alternative access to neighborhoods served by these streets is readily available. No arterial roads will be affected.

Public Services and Utilities

Alignments for pipelines were chosen to reduce potential interruptions of utilities along major arterial roads through urban areas. Lower levels of traffic would ensure that public service vehicles would be able to utilize arterials. There is a low potential for interruption of major utilities along these largely residential alignments. Implementation of the Well Field Delivery Pipeline would occupy one lane of a local service road within the City of Hesperia for a short period of time.

Cumulative Effects

The EA evaluated cumulative impacts of current and foreseeable future capital improvement projects and development proposals, as well as existing and future groundwater banking programs. No cumulatively considerable adverse impacts were identified. No cumulative effects are expected.

Indian Trust Assets - The proposed project will not affect tribal water rights or other Indian Trust Assets.

Threatened and Endangered Species

No federally-listed threatened or endangered species were identified within the areas affected by the proposed projects. Critical habitat designated for southwestern willow flycatcher, desert tortoise and arroyo toad are located outside of direct project impact areas and will not be affected.

Cultural Resources, National Register of Historic Places

No buildings, structures, or features in the Project area listed or eligible for listing on the National Register of Historic Places were identified within the Area of Potential Effect. No known archeological sites were identified within the APE. The proposed Project will have no effect on listed properties or properties eligible for listing in the National Register of Historic Places.

Wild and Scenic Rivers

The Mojave River is not a Wild and Scenic Rivers and is not on the Nationwide Rivers Inventory.

Coastal Zone

The projects are located outside the California Coastal Zone Boundary.

AGENCY CONSULTATION AND COORDINATION

Fish and Wildlife Service

Consultant staff contacted the Sacramento Fish and Wildlife Office during preparation of the EA. The Ventura Fish and Wildlife Office was contacted by Reclamation staff to verify that no endangered species or critical habitat issues are likely. Reclamation will document the consultation under section 7 of the Endangered Species Act with either a "no effect" memo or a request for concurrence with a "not likely to adversely affect" finding.

California State Historic Preservation Officer (SHPO)

Reclamation will transmit to the SHPO our finding that the project will not affect properties eligible for listing in the National Register of Historic Places, per section 106 of National Historic Preservation Act.

Army Corps of Engineers

Reclamation staff contacted the Corps and determined that Nationwide Permit Application number SPL-2009-00813 for the R³ Project was denied without prejudice, meaning it will be approved once a section 401 water quality certification is approved by the Regional Water Quality Control Board.

Lahontan Regional Water Quality Control Board

Reclamation staff contact Regional Board staff and verified that Clean Water Act 401 certification is being processed for the R³ Project.

ENVIRONMENTAL COMMITMENTS

Cultural Resources

1. Project construction will not begin until consultation with the California SHPO has been completed in accordance with section 106 of the National Historic Preservation Act for each project.
2. Should cultural resources be discovered during project construction, all ground disturbing activities in the area of the archeological resource will stop and the Regional Archeologist, Patricia Hicks, will be contacted at 702-293-8075. Construction will not resume in the area of the discovery until all mitigative measures developed in consultation with the State Historic Preservation Officer have been completed.

REFERENCES:

Draft Upper Mojave River Groundwater Regional Recharge and Recovery Project (R³) Environmental Assessment, prepared for Mojave Water Agency by RBF Consulting, September 2009.

Upper Mojave River Groundwater Regional Recharge and Recovery Project (R³) Title XVI Feasibility Study Report, prepared for Mojave Water Agency by RBF Consulting, June 2009.

Mojave Water Agency Water Supply Reliability and Groundwater Replenishment Program, prepared by Mojave Water Agency, January 2006. SCH# 2005041103.

ATTACHMENTS:

- 1) Environmental Assessment