RECLAMATION

Managing Water in the West

RECORD OF DECISION

for the

FINAL ENVIRONMENTAL IMPACT STATEMENT

ORIGINALLY COPY

BUNKER HILL GROUNDWATER BASIN, RIVERSIDE-CORONA FEEDER PROJECT

San Bernardino and Riverside Counties, California

December 2015

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U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Mission Statements

The Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

SUMMARY OF ACTION

The Riverside-Corona Feeder is an aquifer storage and recovery project proposed by the Western Municipal Water District ("Western") within the Santa Ana River watershed in San Bernardino and Riverside counties, California. The project includes a 28-mile long water pipeline ranging up to 78 inches in diameter, up to 20 new and existing wells, and other facilities to deliver water from the Bunker Hill groundwater basin in San Bernardino County to Western's service area in Riverside County. The first phase of the project will also provide access to the Chino groundwater basin in San Bernardino County.

Western plans to purchase water from the Metropolitan Water District of Southern California when imported supplies from the California State Water Project are available. The imported water will be percolated into the Bunker Hill basin using existing recharge facilities. The Riverside-Corona Feeder will allow Western to extract the stored groundwater when needed. Project facilities are designed to deliver up to 40,000 acre-feet per year. Current limits on State Water Project supply availability suggests that actual deliveries may be between 6,000 and 9,000 acre-feet per year.

Section 9112 of Public Law 111-11 authorizes the Secretary of the Interior to participate in the planning, design, and construction of the Riverside-Corona Feeder project, in cooperation with Western. This authority is delegated to the Bureau of Reclamation (Reclamation). Reclamation executed a cooperative agreement with Western to cost-share preconstruction activities, including preliminary and detailed design work and technical assistance, environmental compliance, right of way support, and planning.

A final environmental impact statement (EIS) was completed under the National Environmental Policy Act (NEPA).[1] The EIS process ends with a Record of Decision (ROD). The ROD documents our decision, identifies alternatives, and discusses mitigation measures to address environmental effects.

RECLAMATION'S DECISION

We will implement the **Preferred Alternative: Realignment Alternative with Additional Connections**. As federal funds become available we will execute one or more cooperative agreements with Western to provide up to 25% of the cost to construct components of the project, to a maximum of $26,000,000.

Western has awarded a contract for final engineering design of the La Sierra Pipeline Connection, a component of the Riverside-Corona Feeder. We anticipate that this will be the first portion of the project to be "shovel ready" for federal construction funds.

ALTERNATIVES CONSIDERED IN THE FINAL EIS

In addition to the **Preferred Alternative**, the EIS evaluated two action alternatives: the **2005 Project Alignment Alternative** and the **Realignment Alternative**, and a **No Project/No Action** alternative.

No Project/No Action
The No Project/No Action Alternative assumes no facilities are built and no water associated with this project is spread for recharge.

[1] The EIS was combined with a supplemental environmental impact report (EIR), California State Clearinghouse (SCH) no. 2003031121, prepared by Western to comply with the California Environmental Quality Act (CEQA).

2005 Project Alignment Alternative

The 2005 Project Alignment Alternative includes eight pipeline segments, Reaches A through H, evaluated in an earlier CEQA programmatic EIR. Reach A starts in San Bernardino and Reach H ends in Corona. The majority of this alternative is located within the city of Riverside, with sections crossing the cities of Colton, Corona and Grand Terrace, and unincorporated areas.

Infrastructure proposed for the 2005 Project Alignment Alternative includes: a 30-mile long feeder pipeline with one mainline meter and five metered turnouts, a 2,500 horsepower pump station to lift water from the city of Riverside's Waterman Pipeline into the Riverside-Corona Feeder, and twenty (20) 350 horsepower groundwater wells within Bunker Hill basin, producing 2,200 gallons per minute each.

The 2005 Project Alignment Alternative was previously evaluated under CEQA in a Programmatic EIR. Reaches E, F, and G were refined slightly in a 2008 EIR for the La Sierra Avenue Water Transmission Pipeline Project (SCH no. 2006101152).

Realignment Alternative

The Realignment Alternative modifies Reaches A through G from the 2005 Project Alignment Alternative but does not include the additional connection facilities of the Preferred Alternative. This alternative includes the Northern Reach and the Central Reach (realignment of Reaches A through D), plus Reaches E through G described in the 2008 Refinement EIR, and Reach H of the 2005 alignment. Within the city of Riverside, the Central Reach includes either a 31,575 linear-foot Jackson Street alignment or a 36,855 linear-foot Monroe Street option. The Realignment Alternative would allow Western to provide water to the Jurupa Community Service District and other San Bernardino County jurisdictions. This alternative has the same pump station, wells and water supply quantities as the 2005 Project Alignment Alternative.

Preferred Alternative: Realignment Alternative with Additional Connections

The Preferred Alternative includes the same pipeline alignments as the Realignment Alternative, plus four connection facilities. Additional connection facilities added to the project include: a new well field for five (5) of the 20 wells, three (3) additional pump stations, one (1) five-million gallon reservoir, and connecting pipelines. The Preferred Alternative includes the following components:

- Central Feeder Connection
- Northern Reach
- Clay Street Connection
- Central Reach (Jackson Street or Monroe Street option)
- Mockingbird Connection (former Reach E)
- Reach F
- La Sierra Pipeline Connection
- Reach G
- Reach H

The Preferred Alternative would use up to 20 new and existing wells, including 5 that may be installed adjacent to the Central Feeder Connection. Wells may be located in the various well fields evaluated in the 2005 Project Alignment EIR and in the Central Feeder Connection area.

The Preferred Alternative includes four connection facilities: the Central Feeder Connection, to move water through the San Bernardino Valley Municipal Water District's Central Feeder in San Bernardino County; the Clay Street Connection, to accept water directly from the Chino Desalter Phase 3 facilities; and the Mockingbird and La Sierra Pipeline connections to the existing Mills gravity pipeline.

The La Sierra Pipeline Connection is in final engineering design for construction, and includes Reach G, a portion of Reach F, and the Sterling Pump Station. The current design proposes 20,000 linear feet of 30-inch diameter pipeline to connect the Mills Gravity Pipeline to the Arlington Desalter pipeline. Reaches G and F have been realigned to use existing flood control easements as a shorter connection, reducing construction-related street impacts and traffic disruptions. See the attached CEQA addendum.[2]

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The EIS concluded that the No Action alternative is the environmentally superior alternative with respect to reducing impacts created by the proposed project. The No Action alternative would avoid all construction related impacts (traffic, noise, air pollution), would not affect groundwater resources, and would avoid any indirect increase in greenhouse gas emissions.

The 2005 Project Alignment Alternative would have slightly greater aesthetics/visual and historic resource impacts than the Realignment Alternative or the Preferred Alternative due to impacts on Victoria Avenue, listed on the National Register of Historic Places.

The 2005 Project Alignment Alternative and the Realignment Alternative would have slightly greater groundwater quality impacts than the Preferred Alternative, due to minor changes in existing pollution plumes within the Bunker Hill groundwater basin. This impact is avoided in the Preferred Alternative with the option to use the proposed new well field located adjacent to the Central Feeder Connection.

Of the action alternatives, the 2005 Project Alignment Alternative would have fewer impacts to biological resources because it would not traverse areas with Delhi soils which may be habitat for the Delhi Sands flower-loving fly, a federally-listed endangered species. The Realignment Alternative would have the same impacts as the Preferred Alternative regarding Delhi soils and Delhi Sands flower-loving fly habitat. The Realignment Alternative has fewer biological resource impacts associated with above-ground facilities (Mockingbird Canyon reservoir tank and pump station) than the Preferred Alternative.

The Realignment Alternative and the Preferred Alternative have greater effects related to airport proximity than the 2005 Project Alignment Alternative which is located further from Riverside Municipal Airport and historic Flabob Airport and would avoid these effects.

The Preferred Alternative and the Realignment Alternative have substantially the same environmental impacts, except the Preferred Alternative would have slightly greater aesthetic, biological, and energy impacts due to the additional reservoir, booster station and well facilities. The Preferred Alternative will create greater greenhouse gas emissions, due to power demand for the additional pump stations.

[2] The CEQA addendum was prepared to evaluate changes to the project and to document that the changes do not require preparation of a subsequent EIR. CEQA re-evaluation criteria at 14 CCR 15162(a) are essentially identical to Council on Environmental Quality NEPA regulations at 40 CFR 1502.9(c). The CEQA addendum serves the same purpose as a Supplemental Information Report, described in the Reclamation NEPA Handbook (chapter 3.19).

BASIS FOR DECISION

Our decision is based on the final EIS filed with the Environmental Protection Agency (CEQ #20130171). The EIS was combined with a supplemental EIR certified pursuant to CEQA on February 16, 2012. No legal challenges to the CEQA document were raised or filed.

The environmental review concluded that construction-phase air quality impacts would be significant under CEQA in the short term even after mitigation, and also identified a cumulatively considerable net increase of greenhouse gas emissions during project operation; an indirect effect found significant and unavoidable under CEQA. All other environmental issues were either less than significant, or less than significant after mitigation.

Identified environmental concerns include: effects to existing groundwater contamination plumes in the Bunker Hill basin, recognition of existing groundwater rights, traffic and noise effects during construction, coordination with Riverside County Airport Land Use Commission, avoidance of existing water pipelines and other infrastructure, effects to biological habitat areas including endangered species, and avoidance of known historic resources. Western continues to work with the cities of Riverside and San Bernardino, and other interested parties to address any unresolved issues.

Western's Board of Directors approved Resolution 2756 on February 15, 2012. The resolution certified the supplemental EIR for the Riverside-Corona Feeder, adopted environmental findings pursuant to CEQA, adopted a Statement of Overriding Considerations, adopted a Mitigation Monitoring and Reporting Program, and approved the Preferred Alternative. A CEQA Notice of Determination was filed on February 16, 2012 with the Riverside County Clerk, the San Bernardino County Clerk, and the California State Clearinghouse in the Governor's Office of Planning and Research.

Western determined that the social, economic and environmental benefits of the project separately and individually outweigh the potential unavoidable adverse impact and render those potential adverse environmental impacts acceptable based upon the following overriding considerations:

- Even though the short-term construction of the project is shown to have a significant impact on air quality, these impacts are temporary and will no longer exist once the project is operational and, therefore, the project's cumulative impact is less than significant.

- The proposed project will reduce impacts related to traffic circulation and biological resources by utilizing boring/tunneling techniques for pipeline installation across major roadways, canals, railroads and riparian areas.

- The proposed project's guided pipe jacking process will reduce surface disturbances during construction and installation.

- The proposed project will address long-term water demand and meet the future needs of a rapidly growing service area by providing an adequate potable water distribution network.

- The proposed project will reduce possible water shortages during dry years or times of year and reduce reliance on direct delivery of imported water during dry year conditions.

- The proposed project's system of storage, extraction and distribution of water will improve the reliability of Western's water supply and will make Western less dependent on the direct delivery of water from the Metropolitan Water District of Southern California.

- The proposed project will contribute to the Upper Santa Ana Watershed effort to become drought-proof and self-sufficient.

- The proposed project will improve groundwater quality through managed extraction and spreading of imported water.

- The proposed project will tie into the Chino Desalter Phase 3 expansion to facilitate the connection of Western's facilities to those that are a part of the Chino Basin Dry-Year Yield Program.

- The proposed project will deliver available imported water to its customers.

- The proposed project will interconnect local groundwater basins thereby creating a regional approach for the distribution of groundwater in order to improve groundwater reliability.

Reclamation staff concluded that the EIS adequately evaluated the reasonably foreseeable effects of the proposed action consistent with Reclamation policy for implementation of NEPA.

We also considered the following issues:

Clean Air Act

Estimates of construction-phase emissions of particulates (PM-10 and PM 2.5) and ozone precursor nitrogen oxides (NOx) exceed the CEQA threshold of significance even with implementation of mitigation measures recommended by the South Coast Air Quality Management District. The EIS calculated that all construction phase air impacts are below the *de minimis* thresholds for Clean Air Act conformity determination.

During preparation of the EIS, the South Coast Air Basin was reclassified to "Extreme" non-attainment for the 1997 8-hour ozone national ambient air quality standard (77 FR 12674, May 10, 2010), reducing the *de minimis* threshold for NOx to 10 tons per year. The EIS estimated that NOx emissions during construction of some project components may exceed 10 tons per year.

Clean Air Act regulations for determining conformity of general federal actions [40 CFR 93.158(a)(5)(v)] provide that regional water projects sized to meet only the needs of population projections contained in the applicable State Implementation Plan (SIP) are in conformance with or consistent with the SIP as long as the requirements of 40 CFR 93.158(c) are met. We determined that these requirement were met and find that the proposed project is in conformity or consistent with the California SIP.

See the attached memorandum evaluating the Clean Air Act consistency determination.

Greenhouse Gas

The EIS estimates that operation of the Preferred Alternative may produce 14,464 metric tons of carbon dioxide (CO2) per year. This exceeds the 10,000 metric tons per year draft significance threshold proposed by the South Coast Air Quality Management District and the California Air Resources Board for industrial projects (no draft threshold has been proposed for infrastructure projects). The impact was found to be significant under CEQA.

The Council on Environmental Quality issued *Revised Draft Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews* (79 FR 77802-77831, December 24, 2014) and set a reference point of 25,000 metric tons of CO2, below which a quantitative analysis of greenhouse gas emissions is not recommended.[3]

Endangered Species Act (ESA)

Most project components will be installed within streets in developed or disturbed urban and agricultural areas. However, some components will be installed within habitat areas and may affect federally-listed threatened and endangered species or designated critical habitat areas.

The Mockingbird Canyon reservoir tank and pump station will be located in sage scrub habitat supporting coastal California gnatcatcher (*Polioptila californica californica*), a threatened bird species. The Central Reach will cross the Santa Ana River, containing critical habitat for least Bell's vireo (*Vireo bellii pusillus*), an endangered bird species, and Santa Ana sucker (*Catostomas santaanae*), a threatened fish species. A portion of the Northern Reach in San Bernardino County may affect sand dune habitat occupied by endangered Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*).

We met with U.S. Fish and Wildlife Service biologists on November 10, 2010, for informal consultation under section 7 of the ESA. Western committed to become a "participating special entity" under the Western Riverside Multi-Species Habitat Conservation Plan (MSHCP) to obtain incidental take authorization for components of the project that may affect federally-listed species or designated critical habitat areas within Riverside County.

San Bernardino County is outside the Western Riverside MSHCP boundary. Formal consultation under section 7 of the ESA will likely be required for this component. The Northern Reach includes a turn-out connection at the county line. The Riverside County and San Bernardino County portions of the Northern Reach have independent utility and can be evaluated separately under the ESA.

The La Sierra Pipeline Connection will not affect any federal listed species or critical habitat. The south portion of the pipeline will be installed within La Sierra Boulevard. There will be no direct effects to any habitat areas. Avoidance measures will be implemented to ensure that indirect disturbances during construction will not affect coastal California gnatcatcher, least Bell's vireo, or Stephen's kangaroo rat (*Dipodomys stephensi*). Formal ESA consultation is not required for this project component.

A memorandum to the Fish and Wildlife Service is attached.

[3] In a memorandum to the Office of Environmental Policy and Compliance (OEPC) dated February 10, 2015, Reclamation expressed concern regarding the numeric threshold in the Council on Environmental Quality revised draft guidance. Southern California Area Office staff concluded that the 25,000 metric ton threshold still provides a useful reference measure to consider the context and intensity of this indirect impact.

National Historic Preservation Act (NHPA)
No adverse effect to any resource listed in or eligible for listing in the National Register of Historic Places was identified. Cultural resource reports were prepared for each component of the Riverside-Corona Feeder project. Under section 106 of the NHPA, Reclamation is required to consult with the California State Historic Preservation Officer (SHPO) for each federally funded project component.

On June 12, 2012, the California SHPO concurred with our finding of "no historic properties affected" for the La Sierra Pipeline Connection. Western prepared an updated cultural report in April 2014, to include Reach G and a portion of Reach F as part of the La Sierra Pipeline Connection. Reaches G and F have been realigned along existing flood control easements. The CEQA addendum found the realignment would not affect cultural resources. A new cultural report will be prepared for submittal to the SHPO.

Western has committed to include an archaeological monitoring program in identified sensitive areas and will seek the assistance of the California Native American Commission and interested tribes.

The concurrence letter from California SHPO is attached.

Water Rights and Groundwater Contamination
Water rights in both the Bunker Hill groundwater basin and the Chino basin are subject to stipulated judgments. A Court-appointed Watermaster is responsible for managing groundwater accounting and pumping rights in each basin. Several contamination plumes are known, including the Newmark Groundwater Superfund Site. Western has committed to monitoring and adaptive management to ensure that project operations are coordinated with management of the basin area as a whole.

Airports
The Central Reach and Clay Street Connection are near the Riverside Municipal Airport. Western will file a Federal Aviation Authority (FAA) Form 7460-1, *Notice of Proposed Construction or Alteration* and will work with FAA to resolve any adverse effects on aeronautical operations. Western also adopted avoidance measures for the Northern Reach construction in the Flabob Airport Influence Area.

Environmental Justice
The EIS included an environmental justice evaluation and concluded that no disproportionately high or adverse impacts are anticipated to minority or low income populations.

Indian Trust Assets
No known Indian trust assets are associated with the Proposed Action.

COMMENTS RECEIVED ON THE FINAL EIS

We received one letter from the Environmental Protection Agency (EPA) on the final EIS. The letter expressed appreciation for revisions made to the draft EIS responsive to their earlier comments, and requested three additional environmental commitments be included in the ROD:

1. To help ensure adequate and timely treatment of extracted groundwater, all future water supply permitting requests will identify appropriate "sentinel" monitoring well locations for each new

production well that would allow sufficient time to prepare and implement necessary treatment should potential draw to contaminated plumes be detected.

2. Western will analyze whether recharging, with imported water, portions of an aquifer formerly occupied by contaminated plumes results in contamination by residual volatile organic compounds (VOC), perchlorate, trichloroethylene (TCE), or other contaminants. The commitment should identify appropriate remedies, and the timeframe for action, should such contamination occur.

3. All CEQA mitigation measures, including specific criteria for assessing the success of mitigation, are adopted by Reclamation as environmental commitments, and will be noted as required conditions in all future financial assistance agreements for the project.

The EPA comment letter is attached.

ENVIRONMENTAL COMMITMENTS AND MONITORING

All practicable means to avoid or minimize environmental harm from the alternative selected have been adopted. Western's Board of Directors has approved the attached Mitigation Monitoring and Reporting Program. We have concluded that the additional environment commitments requested by the EPA are not needed for the following reasons:

1. When a new well is drilled, indicator wells in the vicinity that could be affected by Project operation will be selected to become part of the annual operations management plan. [MM GWQ 2 (revised) b].

2. Replenishment of the Basin with State Water Project water has been occurring since 1972. The effects from recharge and extraction of imported water are monitored and evaluated by the State of California. The Regional Water Quality Control Board adopted Resolution no. R8-2008-0019 on January 18, 2008. The resolution authorized a cooperative agreement to protect water quality and encourage the conjunctive use of imported water in the Santa Ana River Basin. Agencies along the Santa Ana River that replenish aquifers with imported water agreed to model, monitor, and report systematically. The agreement spells out sampling methods and timing, responsible parties, and reporting requirements.

3. We consider the mitigation measures adopted by Western to be part of the project description for the proposed federal action. Western will implement all adopted mitigation measures as required by CEQA. Any future changes to the proposed action relevant to environmental concerns – including changes to the mitigation measures - will be reviewed under the NEPA re-evaluation criteria at 40 CFR 1502.9(c)(1) to determine if a supplemental EIS is required.

We also decline to craft specific criteria for assessing the success of mitigation. As long as Western implements all measures as promised, they will have met their good-faith obligation to mitigate the identified effects of the proposed action.

List of Environmental Commitments

The CEQA Mitigation Monitoring and Reporting Program is attached. We will ask Western to provide documentation that all mitigation measures were implemented, for our administrative record.

As future components of the Riverside-Corona Feeder components are proposed for construction with federal funds from Reclamation, we will consult with the U.S. Fish and Wildlife Service and the California SHPO as required by section 7 of the ESA and section 106 of the NHPA, respectively. The consultations are legal requirements, not NEPA environmental commitments.

Our ESA "no effect" memorandum to the Fish and Wildlife Service includes a commitment to implement specific avoidance measures as a condition of our financial assistance agreement for construction of the La Sierra pipeline connection:

- All construction activity (including parking, staging areas, and spoil storage areas) will be limited to the La Sierra Avenue right-of-way.

- Construction activity will avoid the nesting season (March 1 through August 15).

- The limits of construction adjacent to suitable coastal California gnatcatcher habitat will be fenced with orange vinyl barrier material, and this area will be inspected regularly throughout construction by the project biologist.

- Prior to construction, the limits of construction adjacent to suitable Stephens' kangaroo rat habitat will be fenced with orange vinyl barrier material. Silt fencing will be installed in addition to the orange vinyl fencing to discourage Stephens' kangaroo rats from wandering into the limits of construction. The limits of construction will be inspected regularly throughout construction by the project biologist.

ATTACHMENTS

1. Map
2. EPA comment letter on final EIS
3. Clean Air Act conformity determination memorandum
4. ESA "no effect" memorandum for La Sierra Pipeline Connection
5. California SHPO concurrence for La Sierra Pipeline Connection
6. Mitigation Monitoring and Reporting Program
7. Addendum No. 1 to the Supplemental EIR/EIS