

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

MID-PACIFIC REGION

SACRAMENTO, CALIFORNIA

FINDING OF NO SIGNIFICANT IMPACT

Merced Irrigation District Arena Canal and Howard Lateral
Conservation Project

FONSI 12-20-MP

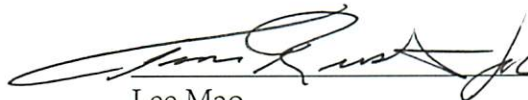
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Date: 10/15/2012

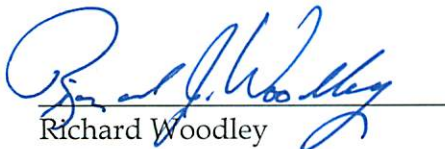
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Date: 10/16/12



RECLAMATION
Managing Water in the West

FINDING OF NO SIGNIFICANT IMPACT
Merced Irrigation District Arena Canal and Howard Lateral Water
Conservation Project

FONSI 12-20-MP

BACKGROUND

Pursuant to the Department of the Interior's (DOI) CALFED Bay-Delta Program, the Bureau of Reclamation (Reclamation) proposes to provide up to \$1,000,000.00 to the Merced Irrigation District (MID) to help fund the proposed Arena Canal and Howard Lateral Water Conservation Project. The purpose of this action is for Reclamation to further the goals and objectives of the CALFED Bay-Delta Program as they apply to water management operations in the MID.

The Department of the Interior's (DOI) CALFED Bay-Delta Program is a 30-year Program (2000-2030) among 25 federal and state agencies with responsibility in the Sacramento San Joaquin Delta (Delta). The Program is based on four major resource management objectives that guide its actions to achieving a Delta that has a healthy ecosystem and can supply Californians with a reliable water supply. Those objectives are levee system integrity, water quality, water supply reliability and ecosystem restoration. Reclamation plays a key role as the federal lead agency for implementation of water supply reliability actions in coordination with our state CALFED partner agencies.

Details of the proposed project are included in MID's February 2012 Initial Study/Proposed Mitigated Negative Declaration (IS/MND) and the addendum to the IS/MND dated June 29, 2012. This document was prepared by MID and finalized by MID in accordance with the California Environmental Quality Act (CEQA). Based on Reclamation's independent review of the IS/MND and addendum, Reclamation has determined that this document may be used as a basis for preparing NEPA documentation for the proposed action with the exception of the Air Quality analysis and the Cultural Resources analysis. The IS/MND and addendum documents are incorporated by reference into this FONSI in accordance with the Council on Environmental Quality's March 6, 2012 Memorandum on "Improving the Process for Preparing Efficient and Timely Environmental Reviews under the National Environmental Policy Act". A copy of this IS/MND is attached to this FONSI and labeled "Attachment 1". Except for Air Quality emissions analysis information and for Cultural Resources compliance information to describe compliance with Section 106 of the National Historic Preservation Act (NHPA), the material contained in the IS/MND and addendum describes and discloses all relevant issues associated with the proposed action. The information in the IS/MND effectively evaluates and supports the conclusions in the FONSI for issues related to water resources, land use, and biological resources.

As part of the CEQA process, MID conducted public involvement activities for this project that involved the following: submitting the IS/MND to the State Clearing House for comments from interested state and local agencies, posting the IS/MND at the Merced County Clerk's office on February 24, 2012 making the document available for review from February 24, 2012 through the date of MID's Board meeting on May 2, 2012, and placing two public notices in the Merced Sun Star on February 29, 2012 and March 7, 2012 advertising the dates of the public hearings on the Project. One comment was received on the project in the form a letter dated April 30, 2012 from the Gallo Cattle Company. MID provided a written response to this comment by letter dated May 25, 2012. Both of these letters are incorporated by reference into this FONSI and copies are attached to this FONSI and labeled "Attachment 2".

FINDINGS

In accordance with NEPA, the Mid-Pacific Regional Office of Reclamation has found that the Proposed Action is not a major federal action that would significantly affect the quality of the human environment. Consequently, an environmental impact statement is not required. This finding of no significant impact is based on the following:

Water Resources: The Proposed Action would reduce the amount of seepage currently occurring within the Arena Canal and Howard Lateral delivery facilities. The Proposed Action will not alter drainage patterns of the area. The Proposed Action will allow for a more efficient distribution of MID's surface water to the service area, reduce the amount of water lost to seepage or spills and potentially reduce the amount of groundwater pumped by local farmers. An equivalent amount of water to the estimated 330 AF, which currently is lost operational spills from the canals, will no longer be available to recharge the Merced groundwater subbasin underlying the canals' footprints. However, the Proposed Action will enable MID to conserve water for downstream users (due to improved efficiency) or to store that water in Lake McClure or other storage areas by not requesting the additional flows. Therefore, the Proposed Action will have no adverse impacts on water resources and will potentially have a slight beneficial impact on groundwater resources due to a decrease in pumping and surface water resources due to potentially greater storage in MID's storage facilities and overall improvement in system efficiency.

Land Use: Land use will remain the same as described in the Setting on page 33 of the IS/MND because all proposed improvements will occur within the footprint of existing irrigation features and Right-of-Way, or will return the land to the existing use upon construction completion. Construction and placement of equipment and ground disturbance will be temporary and thus will not affect land use. The installation or modification of the pipeline and lateral conveyance facilities will not contribute to changes in land use. The lands will remain in a typical agricultural cropping pattern as is typical for the soils in the service area.

No lands would be fallowed or converted from a non-agricultural use to an agricultural use. The conservation and increase in efficiency of the water conveyance system for MID's agricultural customers will help MID to maintain the existing land uses and will therefore have a slight beneficial impact on land use due to the Proposed Action.

Biological Resources: As the Proposed Action will be limited to lining or piping open laterals and will not involve conversion of habitat to developed infrastructure or other land uses, there will be no loss of potential or actual habitat of raptors or the valley elderberry longhorn beetle (VELB), both of which have the potential to occur in the area of construction. Impacts to individual raptors will be minimized so as to avoid any take that could violate the Migratory Bird Treaty Act. The measures described on page 20 of the IS/MND will ensure that raptors that could potentially occur near the project area (burrowing owls and Swainson's hawks) will be adequately protected. A full list of measures to avoid adverse direct impacts to VELB and its habitat is provided in Appendix A of the IS/MND on page 29. With implementation of the avoidance and minimization measures outlined in the IS/MND and Appendix A, there will be no adverse impacts to special-status plants or wildlife.

Cultural Resources: The MID conveyance system was previously evaluated as not eligible for the National Register of Historic Places (National Register), which the SHPO concurred with on April 17, 2012 (BUR110513A). For this undertaking, Reclamation documented the Arena and Howard Laterals as part of the ineligible MID conveyance system and evaluated them individually, as not eligible for inclusion in the National Register. Reclamation entered into consultation with the SHPO as outlined in the 36 CFR Part 800 regulations describing the Section 106 process. The consultation package was hand delivered to SHPO on August 29, 2012. To date, no correspondence has been received by Reclamation from the SHPO.

Pursuant to the regulations at 36 CFR §800.5(c), the SHPO has 30 days from receipt to review an agency finding. The SHPO has yet to respond to Reclamation's request for review and comment. If after 30 days the SHPO has not responded, the regulations state that "...the agency official shall then carry out the undertaking in accordance with paragraph (d)(1) of this section [§800.5(c)(1)]." Because the SHPO has failed to comment on Reclamation's finding within the period of time provided to them pursuant to the Section 106 regulations, Reclamation may conclude the Section 106 process with no additional consideration. A copy of Reclamation's October 10, 2012 email providing notification of the completion of the Section 106 process for this undertaking is attached to the FONSI and labeled "Attachment 3".

Indian Trust Assets: There are no Indian reservations, rancherias or allotments in the Proposed Action area. The Proposed Action does not have a potential to affect Indian Trust Assets (ITA). The nearest ITA is Chicken Ranch Rancheria approximately 43 miles northeast of the Proposed Action area.

Environmental Justice: To the extent that water supply and reliability is improved in MID's service area, it will serve to benefit the surrounding rural agricultural based communities that rely upon MID for water by helping to stabilize their supply, which will have a slight beneficial effect on employment (through increased stability) of minority or low-income populations in the affected area.

Air Quality: Section 176 (c) of the Clean Air Act (CAA) (42 U.S.C. 7506 (c)) requires that any entity of the Federal government that engages in, supports, or in any way provided financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable State Implementation Plan (SIP) required under Section 110 (a) of the CAA (42 U.S.C. 7401 (a)) before the action is otherwise approved. In this context, conformity means that such federal actions must be consistent with a SIP's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieving expeditious attainment of those standards. Each federal agency must determine that any action that is proposed by the agency and that is subject to the regulations implementing the conformity requirements will, in fact conform to the applicable SIP before the action is taken.

On November 30, 1993, the U.S. Environmental Protection Agency (EPA) promulgated final general conformity regulations at 40 CFR 93 Subpart B for all Federal activities except those covered under transportation conformity. The general conformity regulations apply to a proposed Federal action in a non-attainment or maintenance area if the total direct and indirect emissions of the relevant criteria pollutant(s) and precursor pollutant(s) caused by the Proposed Action equal or exceed certain threshold amounts, thus requiring the Federal agency to make a determination of general conformity.

Affected Environment

The San Joaquin Valley Air Basin (SJVAB) is within the management area of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAB experiences episodes of poor atmospheric mixing caused by inversion layers formed when temperature increases with elevation above ground, or when a mass of warm, dry air settles over a mass of cooler air near the ground. NAAQS and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), inhalable particulate matter between 2.5 and 10 microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}), and lead. The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

The SJVAB has reached NAAQS and CAAQS attainment status for all criteria pollutants except for O₃, PM₁₀ (CAAQS only), and PM_{2.5}. As a result, the

emissions of most concern are O₃ (which includes precursors such as volatile organic compounds [VOC] and nitrogen oxides [NO_x]), PM₁₀, and PM_{2.5}. Table 1 below shows the attainment status and *de minimis* threshold for general conformity for the criteria pollutants of most concern.

Table 1. SJVAB Attainment Status and <i>De Minimis</i> Thresholds for Federal Conformity Determinations		
Pollutant	Attainment Status^a	(tons/year)
VOC (as ozone precursor)	Nonattainment ^d	10 ^b
NO _x (as an ozone precursor)	Nonattainment ^d	10 ^b
PM ₁₀	Nonattainment (CAAQS) Attainment (NAAQS)	15 ^c
PM _{2.5}	Nonattainment	100 15 ^c
^a Source: http://www.arb.ca.gov/desig/adm/adm.htm ^b 40 CFR 93.153 ^c SJVAPCD Threshold ^d The SJVAB is designated as Extreme for O ₃ NAAQS		

Environmental Consequences

No Action Alternative

There would be no effect on conditions and trend in air quality within the SJVAB.

Proposed Action

Construction emissions would vary from day to day and by activity, depending on the timing and intensity of construction, and wind speed and direction. Generally, air quality impacts from the Proposed Action would be localized in nature and decrease with distance. Ground disturbing activities would result in the temporary emissions of fugitive dust and vehicle combustion pollutants during the following activities:

- earthwork (site preparation, structures removal, channel grading, trenching, compacting, and stockpiling)
- construction equipment and haul truck engine emissions

Calculated emissions from the Proposed Action were estimated using the 2007 URBEMIS software (version 9.2.4), which incorporates emission factors from both the EMFAC2007 and OFFROAD2007 models for reactive organic gases (ROG)¹, NO_x, PM₁₀, and PM_{2.5}. Total project emissions are presented in Table 2 below.

¹ The term “volatile organic compounds” are synonymous with “reactive organic gases” for the purposes of this document since both terms refer to hydrocarbon compounds that contribute to ozone formation.

Table 2. Estimated Project Emissions ^a	
Pollutant	Construction (tons/year)
ROG/VOC	1.58
NO _x	5.87
PM ₁₀	1.18
PM _{2.5}	0.7

^a Source: URBEMIS version 9.2.4

As shown in Table 2, the Proposed Action has been estimated to emit less than the *de minimis* threshold for NO_x and ROG/VOC as O₃ precursors and PM_{2.5}; therefore, a federal general conformity analysis report is not required. In addition, PM₁₀ emissions from the Proposed Action have been estimated to be well below the SJVAPCD threshold of 15 tons/year. The estimated emissions for PM_{2.5} and PM₁₀ assumes that dust suppression measures, such as applying water to limit fugitive dust, would be implemented. However, if dust suppression measures aren't implemented, the estimated emissions for PM_{2.5} (0.7 tons/year) and PM₁₀ (1.18 tons/year) would still be well below the respective thresholds.

Emissions from construction will be short-term and longer term operational emissions will be very infrequent. Comparison of the estimated Proposed Action emissions with the thresholds for Federal conformity determinations indicates that emissions will be below these thresholds. Accordingly, construction and operation under the Proposed Action will not result in significant impacts to air quality beyond Federal thresholds.

Global Climate Change: The Proposed Action would generate GHG emissions from construction activities, mainly through the combustion of fuels by construction equipment and vehicles. These emissions would be temporary, and would cease once construction work is completed. The Proposed Action would not generate a measurable amount of GHGs, and therefore would not result in an adverse impact on global climate change.

Cumulative Impacts: Biological resources will continue to be affected by other types of activities that occur in the same general area, such as low levels of ground disturbance from ongoing facilities maintenance of MID facilities and disturbance and potential dust from harvesting of crops in adjacent agricultural fields, but are not directly related to the Proposed Action. Impacts to biological resources from the implementation of the Proposed Action will occur temporarily and during construction activities only. The Proposed Action, when added to other similar past, existing, and future actions, will not contribute to cumulative adverse impacts to biological resources since impacts will occur only temporarily during construction and operations will not introduce additional effects to biological resources.

The Proposed Action will not contribute to cumulative adverse impacts to air quality since construction activities are short-term and operations will not result in

emissions. The estimated emissions from full build-out of the Arena Canal and Howard Lateral Project will still be below federal conformity thresholds.

The Proposed Action will result in increased efficiency of MID's canal conveyance components, the Arena Canal/Howard Lateral, and the overall MID diversion system. As a result of improved water resource conditions, there could be minor beneficial cumulative impacts in regard to socioeconomic resources and minority or disadvantaged populations. The Proposed Action will not affect cultural resources, ITA, land uses; therefore, it is not expected to contribute to cumulative impacts on these resources.