

RECLAMATION

Managing Water in the West

FINDING OF NO SIGNIFICANT IMPACT

5-Year Groundwater Acquisitions for South of Delta Central Valley Project Improvement Act Refuges

FONSI Number 15-30-MP

Recommended by:



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Date:

1/26/2016

Concurred by:

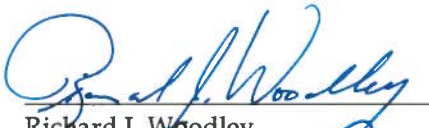


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1/28/2016



**U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region**

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to 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.

Introduction

The Bureau of Reclamation (Reclamation) prepared an Environmental Assessment (EA) to evaluate and disclose any potential environmental impacts associated with its acquisition and/or exchange of groundwater to help meet the Incremental Level 4 (IL4) water supply needs of South of Delta (SOD) Central Valley Project Improvement Act (CVPIA) wetland habitat areas (aka "Refuges") located in California's San Joaquin Valley. Reclamation's water acquisitions and exchanges for SOD Refuges are authorized under CVPIA, Sections 3406(d)(2) and 3406(b)(3).

The EA focuses on the potential impacts of acquiring up to 29,000 AF of IL4 groundwater supplies for SOD Refuges annually for a period of 5 years. Such IL4 groundwater may be acquired from willing providers by either direct purchase or exchange.

Alternatives Including the Proposed Action

No Action: The No Action Alternative would consist of Reclamation not entering into agreements with various parties for the acquisition of groundwater supplies and/or exchange of L2 water for groundwater supplies to help meet SOD Refuges' demand for IL4 water, as well as exchange L2 water for irrigation and domestic uses.

Proposed Action:

Reclamation proposes to enter into agreements with various parties SOD to acquire IL4 water supplies from privately owned groundwater production wells within or near the Grasslands Ecological Area and the City of Los Banos (Proposed Action). The proposed annual groundwater acquisitions would occur for 5 years (March 2016 through February 2021). The Proposed Action will include monitoring a) well production, b) water quality, c) groundwater levels, and d) land subsidence. Monitoring would occur at each well location to confirm that groundwater quality is suitable for refuge use. Based on the data acquired, a determination would be made to modify or curtail the groundwater pumping operations at any time during the 5-year period to mitigate potential impacts.

The groundwater production wells would collectively produce up to 29,000 AF of groundwater annually of acceptable quality, which can be conveyed to and used within the SOD Refuges. Monitoring data would be used to ensure that the Proposed Action would not result in significant impacts to any resources identified in the EA, including water quality within the delivery canals and groundwater levels within the Proposed Action area. The Proposed Action would utilize existing facilities and would not involve any ground disturbance or construction.

The Proposed Action allows for the implementation of new water acquisition and exchange agreements between Reclamation and parties in the vicinity of the SOD Refuges. The Proposed Action will allow for individual wells to be included in a water acquisition agreement as well as an exchange agreement and for flexibility in adding and removing wells on an as-needed basis to achieve the Proposed Action's objectives, based on the economic considerations of each well

by other districts, as necessary, in exchange for a smaller volume of Refuge L2 surface water supplies.

IL4 water may also be acquired under the Proposed Action via an uneven exchange of Refuge L2 water. Such exchanges would likely be with local water districts and other interested parties. Such parties would provide groundwater to the SOD Refuges in exchange for a lesser amount of Refuge L2 water. The exchanged Refuge L2 water would likely be used for agricultural and M&I purposes, depending on who the exchange agreements are with and how they intend to put this water to beneficial use.

The Proposed Action's monitoring would include metering of the flows received from each groundwater well. To minimize any potential for surface water quality degradation associated with the utilization of groundwater to supplement IL4 water supplies, water quality monitoring would consist of both surface water and groundwater quality monitoring. Surface water quality monitoring would consist of both continuous and instantaneous sampling. Monitoring will include sampling from upstream locations to determine the base flow constituent concentrations, a downstream location, and at each wellhead. If water quality objectives are exceeded at any time, corrective actions would be implemented within 24 hours, including modification of or ceasing well pumping operations until water quality objectives are again met.

To minimize any of the Proposed Action's potential impacts on groundwater levels, pre-production groundwater levels would be measured using an electronic water level sensor. Well drawdown would be monitored during pumping operations, and groundwater recovery would be measured annually during years when pumping occurs. All results will be provided to Reclamation with the monthly water quality data.

To minimize the Proposed Action's potential impacts on land subsidence associated with cumulative groundwater pumping in the Delta-Mendota Subbasin, all parties will collaborate with and participate in the San Luis and Delta-Mendota Water Authority's and Central California Irrigation District's established land subsidence monitoring programs. More detailed monitoring information is located in the Groundwater Level and Subsidence Monitoring Plan.

Public Comment

Reclamation provided agencies and the public an opportunity to comment from December 2, 2015 through December 23, 2015. Reclamation received written comments from Merced County (County) and U.S. Fish and Wildlife Service (FWS). The County's comment letter indicated that it was not opposed to the Proposed Action and appreciates the Proposed Action's flexibility in adding and removing wells on an as needed basis.

The FWS provided comments via email on December 23, 2015. The FWS requested clarification on the water quality triggers and the monitoring process included in the Proposed Action to protect water quality. The FWS also requested a map for inclusion in the Environmental Assessment (EA) showing the various well locations as they correspond to the tables in the EA. Reclamation met with the FWS and the Grassland Water District (GWD) on

January 11, 2016 and provided clarifying information to respond to the FWS's comments. Additional information has been included here in the FONSI (See #8 below) to help clarify the rationale behind the water quality triggers and the water quality monitoring process. Concerning the map requested by the FWS, Reclamation did include maps in Appendix A (Water Quality Monitoring Plan) of the public draft EA (see Appendix A, pages 19-23) that showed the numbered wells corresponding to the wells provided in Tables 2 and 4 of the Draft EA.

Findings

Based on the attached EA, Reclamation finds that the Proposed Action is not a major Federal action that will significantly affect the quality of the human environment. The EA describes the existing environmental resources in the Proposed Action area, and evaluates the effects of the No Action and Proposed Action alternatives on specific resources. The EA was prepared in accordance with National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR 1500-1508), and Department of the Interior Regulations (43 CFR Part 46). Effects on several environmental resources were examined and found to be absent or minor. That effects analysis is provided in the attached EA, and the analysis in the EA is hereby incorporated by reference.

Following are the reasons why the Proposed Action's impacts are not significant. The Proposed Action will not:

1. Significantly affect public health or safety (40 CFR 1508.27(b)(3)).
2. Significantly impact natural resources and unique geographical characteristics such as historic or cultural resources; parks, recreation, and refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order (EO) 11990); flood plains (EO 11988); national monuments; migratory birds; and other ecologically significant or critical areas (40 CFR 1508.27(b)(3) and 43 CFR 46.215(b)).
3. Have effects on the human environment that are highly uncertain or involve unique or unknown risks (40 CFR 1508.27(b)(5)).
4. Establish a precedent for future actions with significant effects; nor will it represent a decision in principle about a future consideration (40 CFR 1508.27(b)(6)).
5. Have the potential for the effects to be considered highly controversial (40 CFR 1508.27(b)(4)).
6. Have significant cumulative impacts (40 CFR 1508.27(b)(7)).
7. Affect historic properties (40 CFR 1508.27(b)(8)).
8. Result in adverse impacts to water resources or land resources. The Proposed Action would not impact surface water supplies because a net increase or decrease in delivered SOD CVP

surface water supplies would not occur. The total amount of CVP surface water delivered SOD would remain the same. Surface water and pumped groundwater would be comingled within the GWD's existing conveyance facilities to meet wildlife habitat needs. Westside agricultural and M&I water users would receive L2 refuge surface water supplies through exchange. Delivering Refuge L2 water to CVP agricultural and M&I contractors within the CVP Place of Use service area would not trigger new surface water resources' impacts or impacts of greater magnitude than those impacts already considered in the exchange parties' CVP contract.

Concerning the FWS's comments about water quality, Reclamation and the GWD have been collecting water quality data from a majority of the groundwater wells and surface water features included in the Proposed Action for many years. Data collection started back in 2008 when the original pilot project was initiated. Based on an assessment of the groundwater quality data from the pilot project and from some of the more recent groundwater exchange projects, the groundwater wells have relatively consistent levels of the key water quality constituents monitored. The collected data for Selenium (Se), Boron (B), Total Dissolved Solids (TDS), and Electrical Conductivity (EC) do not indicate large year-to-year or seasonal concentration variations. For example, the attached charts characterize the variance of Se concentrations at all wellheads that contain Se levels above 2.0 parts per billion (ppb) across water years 2014 and 2015. The potential for mid pumping duration spikes in Se at the wellheads is low. These wells are very consistent even when considering a lab resolution of 0.4 ppb for Se. Based on this assessment, there is no need to change the sampling frequency above the proposed post start up and pre shut down analysis.

Concerning the FWS's concern about the potential for a maximum 4 mg/L B surface water trigger to allow for significant increases of B in the system, the wellhead data collected to date does not indicate that this would occur. 21 of the wells in the Proposed Action have recent B wellhead concentrations that are below the B levels typically found in the GWD conveyance system (e.g., below 2 mg/L). These values range between 0.66 mg/L and 2.2 mg/L. The increases of B to the system are expected to be low and within the typical levels for groundwater pumping within the Grassland Resource Conservation District region. The Proposed Action is not expected to cause any change to the running monthly B averages in the San Luis Canal.

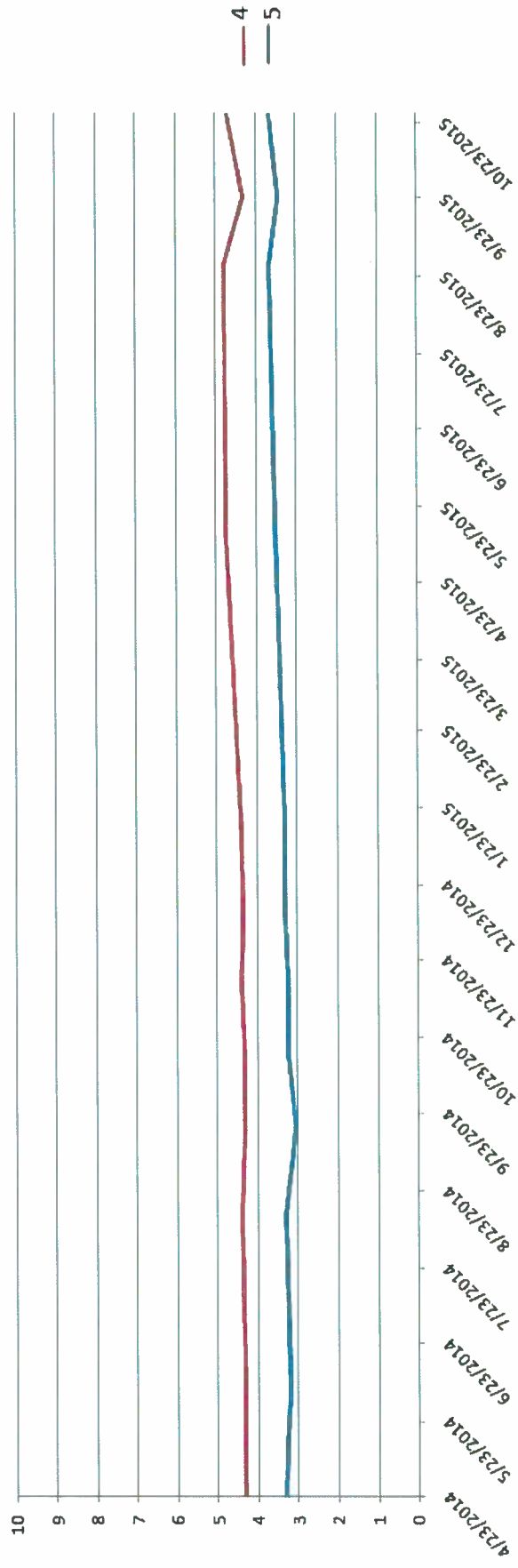
Under the Proposed Action, the GWD would manage and provide oversight of groundwater and surface water conditions. The GWD has quantified flow conditions required to meet downstream Regional Water Quality Control Board (RWQCB) water quality objectives for each of the wells based on individual wellhead water quality sampling data. Accordingly, the GWD will immediately modify pumping if inadequate flow conditions are observed prior to receiving laboratory confirmation of an exceedance. This intensive on-going water management along with the water quality triggers incorporated into the Proposed Action ensures that downstream regulatory water quality objectives promulgated by the RWQCB would be met and that adverse water quality impacts would not occur to any of the surface waters (e.g. Los Banos Creek, canals, etc.) or wetlands within the local watershed.

A review of the pilot project data and data from the more recent groundwater pumping and exchange projects reveals that very few water quality triggers have been exceeded since 2008

A review of the pilot project data and data from the more recent groundwater pumping and exchange projects reveals that very few water quality triggers have been exceeded since 2008 and that the GWD has not had any issues with meeting downstream regulatory water quality objectives. All of the data and reports prepared for these various groundwater projects have been provided to the FWS for their review and consideration on an annual basis.

9. Affect listed or proposed threatened or endangered species (40 CFR 1508.27(b)(9)).
10. Violate federal, state, tribal or local law or requirements imposed for the protection of the environment (40 CFR 1508.27(b)(10)).
11. Affect any Indian Trust Assets (512 DM 2, Policy Memorandum dated December 15, 1993).
12. Disproportionately affect minorities or low-income populations and communities (EO 12898).
13. Limit access to, and ceremonial use of, Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (EO 13007 and 512 DM 3).

Water Year 2014- 2015 Se Wellhead Concentration (ppb)



Water Year 2014- 2015 Se Wellhead Concentration (ppb)

