UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

March 10, 2015

Mr. Pablo Arroyave
Deputy Regional Director
Bureau of Reclamation
South-Central California Area Office
1243 N Street
Fresno, California 93721

Subject: North Valley Regional Recycled Water Program Draft Environmental Impact Statement, Stanislaus County, California [CEQ# 20150011]

Dear Mr. Arroyave:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement for the North Valley Regional Recycled Water Program. Our review and comments are pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The North Valley Regional Recycled Water Program would provide recycled wastewater from the Cities of Turlock and Modesto via the Central Valley Project's Delta-Mendota Canal to Del Puerto Water District for irrigation purposes, and would provide annual supplemental water to designated wildlife refuges for wetlands. Three action alternatives are evaluated in the Draft EIS: two alternatives would construct pipelines to convey water from the Cities to the DMC; a third alternative would continue discharges into the San Joaquin River and would use the river and expanded existing facilities for conveyance.

EPA is generally supportive of water recycling as a way to provide dependable water supplies, as it can have environmental benefits of reducing diversions of water from sensitive ecosystems and reducing pressure to pump groundwater. Such projects must be carefully designed and evaluated to ensure that these benefits are fully realized and any potential adverse impacts are avoided or minimized.

Based on our review of the DEIS, we have rated all the Action Alternatives and the document as *Environmental Concerns – Insufficient Information* (EC-2). Please see the enclosed "Summary of EPA Rating Definitions." Our rating is based primarily on concerns about the potential impacts that may result from further reducing flow in the San Joaquin River, and the potential impacts to waters of the U.S. Furthermore, we believe that additional opportunities exist to reduce air quality impacts. Please find our detailed comments enclosed, which provide recommendations to address these issues.

We appreciate the opportunity to review and comment on this DEIS, and are available to discuss the recommendations provided. When the FEIS is released for public review, please send one hard copy and

one CD to the address above (Mail Code: ENF 4-2). Should you have any questions, please contact me at (415) 972-3521, or contact Jean Prijatel, the lead reviewer for the project. Jean can be reached at (415) 947-4167 or prijatel.jean@epa.gov.

Sincerely,

Kathleen Martyn Goforth, Manager
Environmental Review Section

Enclosures: Summary of EPA Rating Definitions
EPA Detailed Comments

cc: Adam Laputz, Regional Water Quality Control Board (Central Valley Region)
Andy Gordus, California Department of Fish and Wildlife

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR NORTH VALLEY REGIONAL RECYCLED WATER PROGRAM, STANISLAUS COUNTY, CA MARCH 10, 2015

Hydrology and Water Quality

San Joaquin River Flows

The DEIS states that the proposed project would result in a "slight reduction of stream flows" – approximately 0.5% – in the San Joaquin River with the diversion of wastewater discharges to the Delta-Mendota Canal (page 3.11-20). While EPA agrees that this reduction in flow, itself, is likely a minor reduction, flows in the San Joaquin River system are already well below natural flows. It is estimated that, in a median year, only 31% of the natural flow is allowed to remain in the river channel, i.e. the diversion rate is approximately 69%.[1] In a system that is already impacted by reduced flows, any further reduction in flows -- even a relatively small one -- is likely to have an impact. Efforts are underway to increase flows in the system.

The State Water Resources Control Board's 2010 Flows Report[2] underscores the need to increase flows in the San Joaquin River system to support aquatic life, including several endangered species that rely on freshwater flows. The SWRCB is proposing that flow criteria for Delta outflows and the San Joaquin River basin be included in upcoming modifications to the Water Quality Control Plan.[3] It is anticipated that these upcoming flow requirements will require less water be diverted for human consumption and more water be left in the river for aquatic life. Any water transfers in this system would need to be operated in a manner consistent with these requirements.

The Biological Resources chapter of the DEIS discusses the impacts of reduced flows on fish species and their habitats (page 3.4-79) and proposes the following mitigation to support implementation of the Recovery Plan for Central Valley Chinook and Steelhead: improve wastewater treatment in the watershed and augment spawning gravel in the San Joaquin River as part of Reclamation's San Joaquin River Restoration Program, the U.S. Fish and Wildlife Service's Anadromous Fish Restoration Program, or other relevant restoration program.

> ***Recommendation***: Discuss the implications of the SWRCB's proposed flow criteria for the San Joaquin River basin, including how the proposed project would operate within these requirements and any changes the criteria would necessitate to the analysis of the cumulative impacts of the action alternatives.

CWA 303(d) Impairments

The DEIS lists Clean Water Act 303(d) impairments for the segment of the San Joaquin River in the project area: alpha BHC, boron, chlorpyrifos, DDT, DDE, diazinon, diuron, E. coli, electrical conductivity, Group A pesticides, mercury, toxaphene, and unknown toxicity (page 3.11-15). The DEIS

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[1] Flow estimates based on observed flow and unimpaired flow at Vernalis from Tables 2.6 and 2.5 on pp. 2-17 and 2-16 in Appendix C of the Substitute Environmental Document for the Bay Delta Water Quality Control Plan (see link above), as cited in EPA Comments on the Bay Delta Water Quality Control Plan, Phase I SED. March 28, 2013. Available at: http://www2.epa.gov/sites/production/files/documents/sfdelta-epa-comments-swrcb-wqcp-phase1-sed3-28-2013.pdf

[2] State Water Resources Control Board, 3 Aug. 2010, Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem Prepared Pursuant to the Sacramento-San Joaquin Delta Reform Act of 2009, (2010 Flows Report), available at www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/final_rpt080310.pdf

[3] Draft Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the Bay-Delta: San Joaquin River Flows and Southern Delta Water Quality: www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/2012_sed/

notes that this list was based on information from the State Water Resources Control Board in 2010. In EPA's final approval of the 303(d) impairments list on October 11, 2011, temperature was added to the list of impairments for the project area river segment, as well as the next two segments downstream of the project area: Tuolumne River to Stanislaus River and Stanislaus River to Delta Boundary. EPA believes that the reduced flows discussed above could contribute to challenges for reducing temperature impairments.

> ***Recommendation***: Update the CWA 303(d) impairments list to include temperature impairments for the San Joaquin River in the project area and downstream of the project area and include temperature in the cumulative effects analysis of reduced flows.

Regulatory Framework

The DEIS discusses the Recycled Water Policy adopted by the State Water Resources Control Board in May 2009 and amended in April 2013. This policy encourages the use of recycled water to achieve sustainable local water supplies and reduce greenhouse gas emissions. The Recycled Water Policy includes monitoring requirements for groundwater recharge projects, but does not address the type of project proposed in the action alternatives of this DEIS. On June 3, 2014, the SWRCB adopted a statewide General Order titled "General Waste Discharge Requirements for Recycled Water Use."[4] Page 6 of the General Order states that it applies to "recycled water projects where recycled water for non-potable use is used or transported."

> ***Recommendation***: In the regulatory framework section of the Hydrology and Water Quality chapter of the FEIS, include a discussion of the General Waste Discharge Requirements for Recycled Water Use and clarify whether the action alternatives are covered by the General Order.

NPDES Permit

The DEIS states that the Cities of Modesto and Turlock are pursuing National Pollutant Discharge Elimination System permits to allow discharges to the Delta-Mendota Canal (page 1-10), and pursuing Wastewater Change Petitions to establish water rights for the recycled water (page 1-11). It further states that both cities would retain their existing discharge locations and access to the San Joaquin River, but that discharges to the SJR would only happen when the DMC was unavailable, which is expected to be a rare event. According to the DEIS, the State Water Resources Control Board will review the Petitions and determine whether "the change would not injure other legal users of water, would not unreasonably harm instream uses, and would not be contrary to the public interest" (page 2-3).

> ***Recommendation***: Include in the FEIS the status of the new NPDES permits and Wastewater Change Petitions with the SWRCB. Include any discussion and determination provided by the SWRCB about impacts to existing instream uses.

Clean Water Act, Section 404

The DEIS notes that a Clean Water Act section 404 permit will be required for all work proposed in jurisdictional waters of the U.S. A description of types and locations of features likely to be considered jurisdictional waters is included in the DEIS. The document states that a jurisdictional wetlands delineation will be conducted and submitted to the U.S. Army Corps of Engineers for the purposes of determining areas to avoid and calculating required compensatory mitigation. General mitigation measures are provided in the DEIS to avoid, minimize, and mitigate for anticipated impacts, including

[4] www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0090_dwq_revised.pdf

"compensatory mitigation consistent with the conditions of a CWA Nationwide Permit" and/or the Compensatory Mitigation Rule. The DEIS does not indicate which Nationwide Permit would apply to the project.

> ***Recommendation***: Identify and describe the CWA Nationwide Permit that would apply to each alternative. Include in the FEIS the wetlands delineation submitted to USACE and identify proposed areas for compensatory mitigation.

Air Quality

As noted in the DEIS, the project is within the boundary of the San Joaquin Valley Air Basin, which is classified as extreme nonattainment for ozone and nonattainment for $PM_{2.5}$, and is subject to the EPA General Conformity Rule. The DEIS provides environmental commitments intended to reduce fugitive dust from construction, as required by the San Joaquin Valley Air Pollution Control District, and indicates that implementation of those commitments will reduce the impacts to $PM_{2.5}$ levels to less than significant. The DEIS further states that the action alternatives will require the implementation of Mitigation Measure AIR-1 to reduce NOx emissions below the *de minimus* level of 10 tons per year. This mitigation measure provides several options for on-site reductions from which a combination of measures will be selected. After "all feasible" proposed on-site measures have been implemented, if annual emissions are still expected to be over 10 tons per year for NOx, then the project proponent will fund SJVAPCD's Emission Reduction Incentive Program to offset emissions to zero tons per year (page 3.3-32).

> ***Recommendation***: In addition to the measures required to meet applicable local, state, and federal requirements, EPA recommends committing to additional on-site mitigation measures, such as the following, to reduce NOx emissions before determining the need to fund off-site mitigation:
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> Mobile and Stationary Source Controls:
>
> - Minimize use, trips, and unnecessary idling of heavy equipment.
> - Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, where applicable, and to perform at verified standards applicable to retrofit technologies.
> - Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications. The California Air Resources Board has a number of mobile source anti-idling requirements which should be employed (http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm).
> - Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.
> - In general, commit to the best available emissions control technologies for project equipment:
> - *On-Highway Vehicles* - On-highway vehicles should meet or exceed the US EPA exhaust emissions standards for model year 2010 and newer heavy-duty on-highway compression-ignition engines (e.g., long-haul trucks, refuse haulers, etc.).[5]

[5] http://www.epa.gov/otaq/standards/heavy-duty/hdci-exhaust.htm

- *Nonroad Vehicles & Equipment* - Nonroad vehicles & equipment should meet or exceed the US EPA Tier 4 exhaust emissions standards for heavy-duty nonroad compression-ignition engines (e.g., construction equipment, nonroad trucks, etc.).[6]
- *Low Emission Equipment Exemptions* – The equipment specifications outlined above should be met unless: 1) a piece of specialized equipment is not available for purchase or lease within the United States; or 2) the relevant project contractor has been awarded funds to retrofit existing equipment, or purchase/lease new equipment, but the funds are not yet available.

Administrative controls:

- Prepare an inventory of all equipment prior to construction.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.
- Identify where implementation of mitigation measures is rejected based on economic infeasibility.

Climate Change

On December 24, 2014, the Council on Environmental Quality released revised draft guidance for public comment that describes how federal departments and agencies should consider the effects of greenhouse gas emissions and climate change in their NEPA reviews. The revised draft guidance supersedes the draft greenhouse gas and climate change guidance released by CEQ in February 2010. This new draft guidance explains that agencies should consider both the potential effects of a proposed action on climate change, as indicated by its estimated greenhouse gas emissions, and the implications of climate change for the environmental effects of a proposed action.

In describing the need for action, the DEIS discusses how climate change is expected to impact Delta water exports and water availability in the region through more severe weather events and increased temperatures (page 1-4). In the Hydrology and Water Quality chapter, the DEIS discusses the C2VSim model used to estimate changes in San Joaquin River flows. It states that the model considers "cumulative impacts of multiple environmental factors" (page 3.11-27), but does not state whether those factors include modeled impacts of climate change. It is unclear whether the climate change insights that were used to indicate a need for action are included in the cumulative effects analysis of impacts to hydrology and water quality.

> ***Recommendations***: Update, in the FEIS, the Regulatory Framework section of the Greenhouse Gas Emissions chapter to reflect the new CEQ draft guidance.
>
> Indicate whether and, if so, how the C2VSim model that was used to estimate San Joaquin River flows considers the impacts of climate change. Describe how the proposed project would impact the cumulative effects of climate change on the hydrology and water quality of the San Joaquin River.

Water Allocation between DPWD and Wildlife Refuges

The Scoping Report in Appendix A acknowledges that EPA's scoping comment letter requested that the DEIS describe the distribution of project water between irrigation and wildlife refuges, and states that the Project Description of the DEIS will describe this allocation. The Project Description in the DEIS states that Reclamation will work with Del Puerto Water District to obtain supplemental water supplies

[6] http://www.epa.gov/otaq/standards/nonroad/nonroadci.htm

through this project for south of the Sacramento-San Joaquin River Delta Central Valley Project Improvement Act designated wildlife refuges (page 2-1), but the DEIS does not contain a description of how water would be allocated between DPWD and the refuges. The Alternatives chapter further states that it is most likely that SOD refuges will receive water during low agricultural-demand periods (page 2-17), but provides no further detail about water quantities, timing of distribution, or how the low agricultural-demand period relates to the refuges' annual water delivery schedules.

> ***Recommendation***: In the FEIS, specify the expected distribution of project water between DPWD and wildlife refuges, including timing of deliveries and how that timing relates to the water delivery needs of the refuges.