

BAYDELTA CONSERVATION PLAN

►► Environmental Impact Report/Environmental Impact Statement

HIGHLIGHTS



December 2013

**Draft Environmental Impact Report / Environmental Impact Statement
Bay Delta Conservation Plan
Alameda, Contra Costa, Sacramento, San Joaquin, Solano, and Yolo Counties,
California**

Prepared by the U.S. Department of the Interior, Bureau of Reclamation (Reclamation) and U.S. Department of Fish and Wildlife (USFWS); the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS); and the California Department of Water Resources (DWR).

Federal cooperating agencies: U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency.

Nonfederal cooperating agencies: State and Federal Contractors Water Agency, Contra Costa County, Sacramento County, Solano County, Yolo County, Reclamation District 999, Reclamation District 150, Reclamation District 551, Reclamation District 3, North Delta Water Agency, and Tehama-Colusa Canal Authority.

This Draft Environmental Impact Report / Environmental Impact Statement (EIR/EIS) is prepared in compliance with the National Environmental Policy Act (NEPA) and the NEPA procedures of Reclamation, USFWS, and NOAA. Additionally, this EIR/EIS is prepared in compliance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines.

The Bay Delta Conservation Plan (BDCP) proponents—the California Department of Water Resources (DWR) and six State Water Project and Central Valley Project water contractors—are applying for incidental take permits (ITPs) from USFWS and NMFS pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act (ESA). As a required component of the application for the ITPs, and to support the issuance of these permits for a term of 50 years, the BDCP has been prepared. The BDCP is a comprehensive conservation strategy for the Sacramento–San Joaquin Delta (Delta) to advance the planning goal of restoring ecological functions of the Delta and improving water supply reliability in the state of California.

The NEPA Lead Agencies (Reclamation, USFWS, and NMFS) and the CEQA Lead Agency (DWR) have prepared this EIR/EIS to evaluate and disclose the potential effects on the human environment of issuing the requested ITPs. In addition to evaluating the potential effects of implementing the BDCP, the EIR/EIS evaluates a range of alternatives to the proposed action, as well as a no-action alternative, as required under NEPA.

This EIR/EIS focuses on the regional effects of implementing the BDCP, emphasizing effects on water supply, surface water, groundwater, water quality, geology and seismicity, soils, fish and aquatic resources, terrestrial biological resources, land use, agricultural resources, recreation, socioeconomics, aesthetics and visual resources, cultural resources, transportation, public service and utilities, energy, air quality and greenhouse gases, noise, hazards and hazardous materials, public health, minerals, paleontological resources, environmental justice, and climate change, as well as additional topics (such as cumulative effects and growth) required under NEPA and CEQA.

Comments must be received by April 14, 2014.

For further information regarding this EIR/EIS, contact Ryan Wulff, National Marine Fisheries Service, 650 Capitol Mall, Suite 5-100, Sacramento, CA, telephone 916/930-3733.

CEQA Conclusion: NO_x emissions generated during construction would exceed SMAQMD threshold identified in Table 22-9. Likewise, construction would disturb more than 15 acres per day, which pursuant to SMAQMD's CEQA Guidelines, indicates that construction activities could exceed or contribute to the district's concentration-based threshold of significance for PM₁₀ (and, therefore, PM_{2.5}) at offsite receptors.

The SMAQMD's emissions thresholds (Table 22-9) and PM₁₀ screening criteria have been adopted to ensure projects do not hinder attainment of the CAAQS. The impact of generating emissions in excess of local air district thresholds would therefore violate applicable air quality standards in the study area and could contribute to or worsen an existing air quality conditions. Mitigation Measures AQ-2a and AQ-2b would be available to reduce NO_x emissions to a less-than-significant level by offsetting emissions to quantities below SMAQMD CEQA thresholds (see Table 22-9). No feasible mitigation is available to reduce PM₁₀ (and, therefore, PM_{2.5}) emissions to a less-than-significant level; therefore, the impact would remain significant and unavoidable.

Mitigation Measure AQ-2a: Mitigate and Offset Construction-Generated Criteria Pollutant Emissions within the SMAQMD/SFNA to Net Zero (0) for Emissions in Excess of General Conformity *De Minimis* Thresholds (Where Applicable) and to Quantities below Applicable SMAQMD CEQA Thresholds for Other Pollutants¹¹

DWR will reduce criteria pollutant emissions generated by the construction of the water conveyance facilities associated with BDCP within the SMAQMD through the creation of offsetting reductions of emissions occurring within the SFNA. The preferred means of undertaking such offsite mitigation shall be through a partnership with the SMAQMD involving the payment of offsite mitigation fees. Criteria pollutants in excess of the federal *de minimis* thresholds shall be reduced to net zero (0) (see Table 22-8). Criteria pollutants not in excess of the *de minimis* thresholds, but above any applicable air pollution control district or air quality management CEQA thresholds¹² shall be reduced to quantities below the numeric thresholds (see Table 22-9).¹³

DWR will undertake in good faith an effort to enter into a development mitigation contract with SMAQMD in order to reduce criteria pollutant emissions generated by the construction of the water conveyance facilities associated with BDCP within the SMAQMD. The preferred source of emissions reductions for NO_x, PM, and ROG shall be through contributions to SMAQMD's HDLEVIP. The HDLEVIP is designed to reduce NO_x, PM, and ROG from on- and offroad sources.

SMAQMD's incentive programs are a means of funding projects and programs capable of achieving emissions reductions. The payment fee is based on the average cost to achieve one ton per day (tpd) of reductions based on the average cost for reductions over the previous year. Onroad reductions averaged (nominally) \$44 million (NO_x only) and off-road reductions averaged \$36 million (NO_x only) over the previous year, thus working out to approximately \$40

¹¹ In the title of this mitigation measure, the phrase "for other pollutants" is intended to apply to other alternatives, where associated impacts to other pollutants may exceed thresholds other than NO_x.

¹² According to Appendix G of the State CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon make determinations regarding the significance of an impact.

¹³ For example, emissions of NO_x generated by Alternative 1A both exceed the federal *de minimis* threshold for the SVAB and the SMAQMD's CEQA threshold. NO_x emissions must therefore be reduced to net zero (0).

million per one tpd of reductions. This rate roughly correlates to the average cost effectiveness of the Carl Moyer Incentive Program.

If DWR is successful in reaching what it regards as a satisfactory agreement with SMAQMD, DWR will enter into mitigation contracts with SMAQMD to reduce NO_x, PM, or ROG (as appropriate) emissions to the required levels. Such reductions may occur within the SMAQMD and/or within another air district within the SFNA. The required levels are:

- For emissions in excess of the federal *de minimis* threshold: **net zero (0)** (see Table 22-8).
- For emissions not in excess of *de minimis* thresholds but above the appropriate SMAQMD standards: **below the appropriate CEQA threshold levels.** (see Table 22-9)

Implementation of this mitigation would require DWR to adopt the following specific responsibilities.

- Consult with the SMAQMD in good faith with the intention of entering into a mitigation contract with SMAQMD for the HDLEVIP. For SIP purposes, the necessary reductions must be achieved (contracted and delivered) by the applicable year in question (i.e., emissions generated in year 2016 would need to be reduced offsite in 2016). Funding would need to be received prior to contracting with participants and should allow sufficient time to receive and process applications to ensure offsite reduction projects are funded and implemented prior to commencement of BDCP activities being reduced. This would roughly equate to the equivalent of two years prior to the required mitigation; additional lead time may be necessary depending on the level of offsite emission reductions required for a specific year. In negotiating the terms of the mitigation contract, DWR and SMAQMD should seek clarification and agreement on SMAQMD responsibilities, including the following.
 - Identification of appropriate offsite mitigation fees required for BDCP.
 - Timing required for obtaining necessary offsite emission credits.
 - Processing of mitigation fees paid by DWR.
 - Verification of emissions inventories submitted by DWR.
 - Verification that offsite fees are applied to appropriate mitigation programs within the SFNA.
- Quantify mitigation fees required to satisfy the appropriate reductions. As noted above, the payment fees may vary by year and are sensitive to the number of projects requiring reductions within the SFNA. The schedule in which payments are provided to SMAQMD also influences overall cost. For example, a higher rate on a per-tonnage basis will be required for project elements that need accelerated equipment turn-over to achieve near-term reductions, whereas project elements that are established to contract to achieve far-term reductions will likely pay a lower rate on a per-tonnage basis.
- Develop a compliance program to calculate emissions and collect fees from the construction contractors for payment to SMAQMD. The program will require, as a standard or specification of their construction contracts with DWR, that construction contractors identify construction emissions and their share of required offsite fees, if applicable. Based on the emissions estimates, DWR will collect fees from the individual construction contractors (as applicable) for payment to SMAQMD. Construction contractors will have the discretion to reduce their construction emissions to the lowest possible level through

additional onsite mitigation, as the greater the emissions reductions that can be achieved by onsite mitigation, the lower the required offsite fee. Acceptable options for reducing emissions may include use of late-model engines, low-emission diesel products, additional electrification or alternative fuels, engine-retrofit technology, and/or after-treatment products. All control strategies must be verified by SMAQMD.

- Conduct daily and annual emissions monitoring to ensure onsite emissions reductions are achieved and no additional mitigation payments are required. Excess offsite funds can be carried from previous to subsequent years in the event that additional reductions are achieved by onsite mitigation. At the end of the project, if it is determined that excess offset funds remain (outstanding contracts and administration over the final years of the contracts will be taken into consideration), SMAQMD and DWR shall determine the disposition of final funds (e.g., additional emission reduction projects to offset underperforming contracts, return of funds to DWR, etc.).

If a sufficient number of emissions reduction projects are not identified to meet the required performance standard, DWR will coordinate with SMAQMD to ensure the performance standards of achieving net zero (0) for emissions in excess of General Conformity *de minimis* thresholds (where applicable) and of achieving quantities below applicable SMAQMD CEQA thresholds for other pollutants not in excess of the *de minimis* thresholds but above SMAQMD CEQA thresholds are met.

Mitigation Measure AQ-2b: Develop an Alternative or Complementary Offsite Mitigation Program to Mitigate and Offset Construction-Generated Criteria Pollutant Emissions within the SMAQMD/SFNA to Net Zero (0) for Emissions in Excess of General Conformity *De Minimis* Thresholds (Where Applicable) and to Quantities below Applicable SMAQMD CEQA Thresholds for Other Pollutants

Should DWR be unable to enter into what they regard as a satisfactory agreement with SMAQMD as contemplated by Mitigation Measure AQ-2a, or should DWR enter into an agreement with SMAQMD but find themselves unable to meet the performance standards set forth in Mitigation Measure AQ-2a, DWR will develop an alternative or complementary offsite mitigation program to reduce criteria pollutant emissions generated by the construction of the water conveyance facilities associated with BDCP. The offsite mitigation program will offset criteria pollutant emissions to the required levels identified in Mitigation Measure AQ-2a. Accordingly, the program will ensure that the project does not contribute to or worsen existing air quality violations. Whether this program will address emissions beyond NO_x, PM, or ROG, will turn on whether DWR has achieved sufficient reductions of those pollutants pursuant to Mitigation Measure AQ-2a.

The offsite mitigation program will establish a program to fund emission reduction projects through grants and similar mechanisms. All projects must provide contemporaneous (occur in the same calendar year as the emission increases) and localized (i.e., within the SFNA) emissions benefit to the area of effect. DWR may identify emissions reduction projects through consultation with SMAQMD, other air districts within the SFNA, and ARB, as needed. Potential projects could include, but are not limited to the following.

- Alternative fuel, low-emission school buses, transit buses, and other vehicles.
- Diesel engine retrofits and repowers.

- Locomotive retrofits and repowers.
- Electric vehicle or lawn equipment rebates.
- Electric vehicle charging stations and plug-ins.
- Video-teleconferencing systems for local businesses.
- Telecommuting start-up costs for local businesses.

DWR will develop pollutant-specific formulas to achieve emissions reductions in a cost-effective manner. Construction contractors, as a standard specification of their construction contracts with DWR, will identify construction emissions and their share of required offset fees. DWR will verify the emissions estimates submitted by the construction contractors and calculate the required fees. Construction contractors (as applicable) will be required to surrender all required fees to DWR prior to the start of construction. Construction contractors will have the discretion to reduce their construction emissions to the lowest possible level through additional onsite mitigation, as the greater the emissions reductions that can be achieved by onsite mitigation, the lower the required offset fee. Acceptable options for reducing emissions may include, but are not limited to, the use of late-model engines, low-emission diesel products, additional electrification or alternative fuels, engine-retrofit technology, and/or after-treatment products. All control strategies must be verified by SMAQMD, the ARB, any relevant air pollution control district within the SFNA, or by a qualified air quality expert employed by or retained by DWR.

The offsite fee, grant, or other mechanism will be calculated or formulated based on the actual cost of pollutant reductions. No collected offset fees or other moneys will be used to cover administrative costs; offset fees or other payments are strictly limited to procurement of offsite emission reductions. Fees or other payments collected by DWR will be allocated to emissions reductions projects in a grant-like manner.

DWR will conduct annual reporting to verify and document that emissions reductions projects achieve a 1:1 reduction with construction emissions to ensure claimed offsets meet the required performance standard. All offsite reductions must be quantifiable, verifiable, enforceable, and satisfy the basic criterion of additionally (i.e., the reductions would not happen without the financial support of purchased offset credits). Annual reports will include, at a minimum the following components.

- Total amount of offset fees received.
- Total fees distributed to offsite projects.
- Total fees remaining.
- Projects funded and associated pollutant reductions realized.
- Total emission reductions realized.
- Total emissions reductions remaining to satisfy the requirements of Mitigation Measure AQ-2b.
- Overall cost-effectiveness of the projects funded.

If a sufficient number of emissions reduction projects are not identified to meet the required performance standard, DWR will consult with SMAQMD, the ARB, any relevant air pollution

control district within the SFNA, or a qualified air quality expert employed by or retained by DWR to ensure conformity is met through some other means of achieving the performance standards of achieving net zero (0) for emissions in excess of General Conformity *de minimis* thresholds (where applicable) and of achieving quantities below applicable SMAQMD CEQA thresholds for other pollutants.

Impact AQ-3: Generation of Criteria Pollutants in Excess of the BAAQMD Thresholds during Construction of the Proposed Water Conveyance Facility

NEPA Effects: As shown in Table 22-12, construction emissions would exceed BAAQMD's daily thresholds for the following pollutants and years, even with implementation of environmental commitments (see Appendix 3B, *Environmental Commitments*). All other pollutants would be below air district thresholds and therefore would not result in an adverse air quality effect.

- ROG: 2019, 2020, and 2024
- NO_x: 2017 through 2022 and 2024

While equipment could operate at any work area identified for this alternative, the highest level of ROG and NO_x emissions in the BAAQMD are expected to occur at those sites where the duration and intensity of construction activities would be greatest, including the site of the Byron Tract Forebay adjacent to and south of Clifton Court Forebay.

As noted above, environmental commitments outlined in Appendix 3B, *Environmental Commitments*, will reduce construction-related emissions; however, as shown in Table 22-12, ROG and NO_x emissions would still exceed the applicable air district thresholds identified in Table 22-9 and result in an adverse effect to air quality. Mitigation Measures AQ-3a and AQ-3b would be available to address this effect.

CEQA Conclusion: Emissions of ozone precursors generated during construction would exceed BAAQMD thresholds identified in Table 22-9. The BAAQMD's emissions thresholds (Table 22-9) have been adopted to ensure projects do not hinder attainment of the CAAQS. The impact of generating emissions in excess of local air district thresholds would therefore violate applicable air quality standards in the study area and could contribute to or worsen an existing air quality conditions. Mitigation Measures AQ-3a and AQ-3b would be available to reduce ROG and NO_x emissions to a less-than-significant level by offsetting emissions to quantities below BAAQMD CEQA thresholds (see Table 22-9).

Mitigation Measure AQ-3a: Mitigate and Offset Construction-Generated Criteria Pollutant Emissions within BAAQMD/SFBAAB to Net Zero (0) for Emissions in Excess of General Conformity *De Minimis* Thresholds (Where Applicable) and to Quantities below Applicable BAAQMD CEQA Thresholds for Other Pollutants¹⁴

DWR will reduce criteria pollutant emissions generated by the construction of the water conveyance facilities associated with BDCP within the BAAQMD through the creation of offsetting reductions of emissions occurring within the SFBAAB. The preferred means of undertaking such offsite mitigation shall be through a partnership with the BAAQMD involving

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