UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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February 15, 2022

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5750 Almaden Expressway
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Ernest A. Conant
Regional Director, Mid-Pacific Region
Bureau of Reclamation
2800 Cottage Way
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Subject: Pacheco Reservoir Expansion Project Environmental Impact Report, Santa Clara County, California (State Clearinghouse #2027082020)

Dear Todd Sexauer and Ernest Conant:

The EPA has reviewed the above-stated project that was prepared to comply with the California Environmental Quality Act. We note that the EPA previously provided comments related to the subject EIR as a part of the Bureau of Reclamation and the Santa Clara Valley Water District's San Luis Low Point Improvement Project Draft Environmental Impact Statement/Report on September 20, 2019. The July 2019 Draft EIS evaluated multiple alternatives, including the viability of the Pacheco Reservoir expansion alternative, using the California Simulation Model II (CalSim-II) that includes current and future water supply reliability projections to better address water supply reliability and associated water quality and treatment issues during the low water summer months in San Luis Reservoir. Although no preferred alternative was identified, the EPA's 2019 comments on the Pacheco alternative recommended that more operational details be provided to understand how algal blooms would affect the new reservoir, how water quality objectives could be met, how benefits to steelhead would be realized, and how a new reservoir would impact waters of the U.S. and wetlands.

The EPA understands that funding opportunities[1] led to the release of Draft EIR before issuance of a Supplemental or Final EIS. The EPA's recommendations, listed below and described in more detail in the attachment, focus primarily on measures to avoid, minimize, or mitigate environmental impacts from project activities and are intended to inform the next environmental document and future analysis that will be required to comply with NEPA. Please consider the following as the environmental review process continues:

- Synchronize NEPA and CEQA for the remainder of the environmental review process if feasible.
- Use an updated operations model to capture longer periods of drought and assess direct and cumulative impacts to other water users or resources.

[1] In July 2018, the California Water Commission approved the maximum conditional funding amount for the expansion of Pacheco Reservoir, which considered the Project's ability to provide ecosystem improvements and emergency response public benefits (EIR p. ES-22).

- Address continuing water quality impairments and include all measures to monitor and avoid harmful algal blooms and sediments that can degrade Pacheco Creek.
- Conduct a concurrent analysis of alternatives under CEQA, NEPA and the Clean Water Act Section 404 to ensure that the Least Environmentally Damaging Practicable Alternative (LEDPA) is identified. Further, properly apply the 2008 Mitigation Rule (40 CFR 230.91-98) to avoid, minimize and then compensate for significant adverse effects.
- Consider evaluating the ability of existing storage to accommodate any IR4 Refuge supply and continue consultation with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife to better understand the suitability of water quality for refuge purposes.
- Include all available mitigation and best practices to reduce the cumulatively considerable air quality pollutants.
- Quantify greenhouse gas (GHG) emissions from the creation of the larger reservoir and discuss how local GHG emissions would be offset by reductions in GHG emissions from other project activities, e.g., reduced energy use.

The EPA appreciates the opportunity to provide comments to help facilitate continuity between the state and federal processes. We look forward to reviewing the next environmental document prepared for the project. If you have any questions, please contact me at (415) 947-4167 or Robin Truitt, the lead reviewer for this Draft EIR, at (415) 972-3742 or Truitt.Robin@epa.gov.

Sincerely,

JEAN PRIJATEL Digitally signed by JEAN PRIJATEL Date: 2022.02.15 15:16:48 -08'00'

Jean Prijatel
Manager, Environmental Review Branch

Enclosed: Detailed Comments

Cc: Nicole Johnson, Bureau of Reclamation
Sharon McHale, Bureau of Reclamation
Katrina Galacatos, U.S. Army Corps of Engineers
Alison Kirk, Bay Area Air Quality Management District
Joel Casagrande, National Marine Fisheries Service
Jane Ling, State Water Resources Control Board

Synchronizing NEPA and CEQA

A joint federal and state environmental review process integrating the requirements of the National Environmental Policy Act and the California Environmental Quality Act can avoid redundancy, improve efficiency and interagency cooperation, and be easier for the public and applicants. The EPA recommends consulting the 2014 Handbook: NEPA and CEQA: Integrating Federal and State Environmental Reviews (2014),[2] developed by the State of California Office of Planning and Research in coordination with the Council on Environmental Quality. While NEPA and CEQA largely follow the same process for determining the need for an Environmental Impact Statement or Environmental Impact Report, it is recommended that state and federal agencies synchronize the processes so that the public is not presented with multiple commenting periods, and decisionmakers have the maximum suite of potential alternatives and project design options to consider without revisiting recommended decisions from largely completed NEPA or CEQA processes. We understand that financial considerations required the expedited release of the Draft EIR, separate from the NEPA analysis; however, the EPA recommends aligning NEPA and CEQA analyses and release of documents from this point forward to most efficiently and effectively inform the public and decisionmakers as the project advances.

Alternatives

The EPA appreciates that the Draft EIR presents a detailed description of alternatives and provides succinct tables that compare the environmental impacts of the proposed project with each alternative, e.g., Table ES-4 and Table 3.12-5. However, each alternative is only compared to the Proposed Project and there is no clear basis for choosing among the four alternatives as they relate to each other. For example, Alternative B would have the smallest reservoir capacity at the upstream dam site (96K acre feet covering 1,072 acres wth 30.2 miles of shoreline (p. ES-23)) but its impacts are compared only to the Proposed Action also located at the upstream site (Table 3-6). We recommend including an analysis comparing impacts from each alternative to the others to provide the public and decision makers a clear distinction among them.

Alternative C, located at the downstream site, was selected as the Environmentally Superior Alternative, however, the Draft EIR does not provide a clear description or rationale for stating that Alternative C is considered environmentally superior. We note that Alternative C has a longer construction duration of 7.3 years, higher GHG emission levels and conflicts with statewide GHG reduction targets for 2020, 2030, and 2050 (Table 3.10-3), greater energy requirements during construction considering off-road fuel consumption, on-road fuel consumption, helicopter fueling needs, and batch plant energy usage (p. 3.8-2), greater impacts on sensitive natural communities and riparian habitat (p. 3.5-222), and the need for a longer transmission line. Although Alternative C would require fewer acres of vegetation be cleared and removed from areas already inundated, existing reservoir sediments could affect water quality (pp. ES 39-41, 2-16; see also Table ES-6). The Draft EIR acknowledges that both the Proposed Project and Alternative C have significant and unavoidable impacts to air and water quality during construction even with project design and implementation features, Best Management Practices (BMPs) and certain project-specific avoidance and minimization measures (PAMM) (p. ES-12, Table ES-3). We recommend that the Final EIR discuss how the designation of environmentally superior was determined and consider whether it would be the least environmentally damaging practicable alternative for a future Clean Water Act Section 404 permit (see below Wetlands and Clean Water Act Section 404 section).

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[2] NEPA and CEQA: Integrating Federal and State Environmental Reviews https://opr.ca.gov/docs/NEPA_CEQA_Handbook_Feb2014.pdf

Wetlands and Clean Water Act Section 404

As noted in Section 3.5, the proposed project would likely require a permit from the U.S. Army Corps of Engineers (Corps) for the discharge of fill material into waters of the U.S. (WOTUS) under Section 404 of the Clean Water Act. The EPA notes that estimates of impacts to WOTUS presented in Table 3.5-9 are based on the Navigable Waters Protection Rule, which is no longer being implemented by EPA and the Corps. Based on the information presented in Table 3.5-9, construction of the Proposed Project would result in permanent impacts to 128.8 acres of waters, including 14 acres of wetlands. Permitting under Section 404 of the Clean Water Act requires analyses and findings, including the determination of a least environmentally damaging practicable alternative (LEDPA). The EPA recommends concurrent analysis of alternatives under CEQA, NEPA and CWA Section 404 to ensure that the LEDPA is included in CEQA and NEPA alternatives and can be selected in the decision document. Under the 2008 Mitigation Rule (40 CFR 230.91-98), avoidance, minimization, and compensation for impacts are required for compliance with CWA Section 404 in that order, and compensatory mitigation should be sited properly using a watershed approach to ensure that impacts are appropriately offset.

The EPA recommends that the EIR/EIS disclose steps taken to achieve compliance with Section 404 of the Clean Water Act and implementing regulations (40 C.F.R. Part 230) and present information on potential impacts to WOTUS consistent with current regulations (40 C.F.R. 230.3(s)). To support a LEDPA determination, consider modifying the Proposed Action or any of its alternatives to reduce impacts to WOTUS. The EPA recommends a reproducible assessment of the condition of aquatic resources in the reservoir footprint, using an approved conditional assessment such as the California Rapid Assessment Method (CRAM).[3] Additionally, the EPA recommends identifying potential opportunities for compensatory mitigation in the Pajaro River watershed to inform a Mitigation Plan (40 CFR 230.94(c)) following the LEDPA determination.

Water Supply Reliability and Operations Modeling

Currently, Pacheco Reservoir does not receive water from the Central Valley Project (CVP) or State Water Project (SWP) (p. 2-5), but the proposed action would supplement watershed runoff with contract CVP and SWP supplies transferred from San Luis Reservoir via a new Pacheco Conduit. Valley Water has a contract with Reclamation for up to 152,500 acre-feet per year of CVP water, inclusive of an agricultural water supply contract of 33,100 acre-feet. Valley Water has a contract with the California Department of Water Resources (DWR) for up to 100,000 acre-feet per year of SWP water. The Draft EIR notes that the actual amount of water allocated under these contracts each year is typically less than these contractual amounts depending on hydrology and regulatory restrictions. (p. ES 2-7). The EIR estimates that impacts to current users of the CVP and SWP water supply would be less than significant because water supplies would only be reduced by 1% and would therefore require no mitigation (pp. 3.12-31, 3.12-87).

Impacts to CVP and SWP users were modeled in California Simulation Model II (CalSim-II) and considered significant only if they resulted in decreases of more than 5% from existing or future conditions. While the EPA understands that moving water between projects and watersheds is complex, the EPA recommends the EIR/EIS use the latest simulated models to explain more clearly how the use of supplemental water from the CVP and SWP will affect current users. The EPA is concerned that the modeling approach presented in the Draft EIR does not represent the best available information on

[3] California Wetland Monitoring Workgroup (CWMW). 2019. Using the California Rapid Assessment Method (CRAM) for Project Assessment as an Element of Regulatory, Grant, and other Management Programs. Technical Bulletin – Version 2.0, 85 pp. https://www.cramwetlands.org/sites/default/files/2019CRAM_TechnicalBulletin.pdf

project operations. CalSim-II only evaluates historical hydrology through 2003 which does not include the more severe drought that occurred in water years 2012 – 2016. CalSim-II was replaced by CalSim 3.0 in 2017, which includes historical data through 2015, improved supply and demand estimations, finer spatial resolution, and a daily rainfall-runoff model. These factors suggest that CalSim 3.0 may be a more appropriate operations model, better suited to assessing potential effects occasioned by a longer temporal scope and the degree of significance of climate change impacts to associated water operations.

The EPA also notes that the operating criteria used to model diversions to the Pacheco Reservoir (Section 3.12.3.1) are based on state and federal requirements that are currently being revisited. In the 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan,[4] the State Water Resources Control Board states that existing requirements are insufficient to protect the Bay-Delta ecosystem and proposes new inflow-based Delta outflow objectives of 55% of unimpaired flow within an adaptive range of 45-65%. The EPA recommends running the model again with inputs to include reasonably foreseeable diversion criteria that are more stringent to meet Delta outflow objectives and protect Delta beneficial uses.

Instream Flows and Groundwater Recharge

The Draft EIR describes that imported CVP and SWP waters from the San Luis reservoir are used to recharge local groundwater aquifers to help balance pumping and to provide reserves for use during dry years when surface water availability is limited (p. 2-7). Groundwater depletion has already led to land subsidence in some areas (p. 3.7-14) and it is unlikely that the project would thoroughly address groundwater overdraft (p. 2-13/14). As the Draft EIR states, the Variable Flow Schedule would allow the project to increase the reliability flows within Pacheco Creek during summer months, thereby increasing groundwater recharge (pp. 3.20-109/110). The EPA recommends that the variable flow schedule be included in the selected alternative.

Although the proposed project would increase the capacity to store water in wet years for groundwater recharge, its 6 – 8-year construction timeframe would have significant direct impacts on the ability of the system to recharge groundwater, provide suitable South-Central Coast steelhead habitat, or improve water quality. For example, steelhead fisheries in the Pajaro River are supported by groundwater recharge and surface flows from Pacheco Creek via San Filipe Lake and the Miller Canal (Figure 3.6-1) and would be directly impacted by changes in Pacheco Creek flow regimes (p. 3.6-1). Instream flows and groundwater recharge would be interrupted during the summer months of the construction period, generally reduced to less than 1 cubic feet per second, and in some cases the channel would be dry. Additional evaporative and percolation losses would occur under existing and future condition baselines before flows enter San Felipe Lake and the Pajaro River (p. 3.12-28). The EPA suggests that the EIR/EIS evaluate these temporal construction-related impacts more closely to determine whether the impacts are reversible or could become permanent.

Harmful Algal Blooms

Although improved water quality appears to be a secondary objective of this proposed action, the Draft EIR states that the San Luis Low Point Improvement Project was initiated to determine how to improve water quality coming from the reservoir when warm temperatures and declining water levels cause algae to bloom near diversion points (p. ES-2). The EIR notes that water quality is sufficiently deteriorated such that the harmful algal blooms (HABs) can clog drip irrigation systems and water treatment facilities, be toxic to wildlife and livestock, and result in taste and odor issues (p. ES 2-64).

[4] https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/sed/sac_delta_framework_070618%20.pdf

Although it is not thoroughly discussed, the EPA is concerned that cyanobacteria from the San Luis reservoir that is released into the Pacheco reservoir via the new conduit may further inoculate both the reservoir and releases to Pacheco Creek.[5] The EIR states that during San Luis Reservoir low point events, Valley Water would generally reduce the amount of CVP water delivered from San Luis Reservoir and increase withdrawals from the expanded reservoir into the Pacheco Conduit (p. 2-34). It is not clear, however, whether the blending of natural inflow with supplemental CVP water from the San Luis Reservoir will improve water quality or serve to further degrade it. The EPA recommends quantifying the amount of relatively cleaner natural flows to determine whether dilution has any beneficial water quality effect.

Even if the intent under all alternatives is to transfer water from the CVP to the expanded reservoir primarily between December and May when temperatures are lower, (e.g., p. 3.6-41), there doesn't appear to be any analysis related to conditions that are conducive to the formation of HABs, or toxicity effects to fish and livestock that use Pacheco Creek as a water source downstream. The EPA recommends incorporating California Cyanobacteria and Harmful Algal Bloom Network Trigger Levels,[6] as updated periodically to reflect an evolving understanding of HABs, into the EIR/EIS.

While recognizing these effects of HABs, the EPA recommends that any Reservoir Management Plan describe a general HAB monitoring plan and identify actions to be taken to protect public health and other beneficial uses if trigger criteria are exceeded, including releasing water from deeper in the reservoir. Throughout the bloom season, monitoring for cyanobacteria species and cyanotoxins is critical to ensure appropriate protective measures are in place to address the cyanobacteria species and cyanotoxin concentrations present.

Sedimentation

The Proposed Project and its alternatives include the excavation and removal of approximately 700,000 cubic yards of mostly fine-grained residual sediment from within the existing reservoir which could mobilize during high precipitation events and increase turbidity above Central Coast Basin Water Quality Control Plan objectives. Implementation of Mitigation Measure WQ-1a would minimize sedimentation impacts but impacts would remain cumulatively significant and unavoidable (p. 3.20-147). If practicable, the EPA supports the construction of a downstream cofferdam, as proposed under the Alternative C, to attenuate flows and settle sediments before they reach Pacheco Creek (p. 3.20-115), and the beneficial reuse/use of dredged sediments for wetland restoration projects or to combat sea level rise.[7]

Central Valley Fish and Wildlife Refuge Deliveries

The EIR notes that salts, selenium, and boron continue to be of significant concern in Central Valley refuges (p. 3.20-16); that variables unrelated to the proposed project would affect these IL4 deliveries, e.g., willing sellers (p. 2-16); and that refuge benefits related to this proposal, e.g., site-specific conditions needed (p. 3.5-54) are unknown. The EPA recommends further analysis in the EIR/EIS on

[5] Otten, T.G., Crosswell, J.R., Mackey, S. and Dreher, T.W., 2015. Application of molecular tools for microbial source tracking and public health risk assessment of a Microcystis bloom traversing 300 km of the Klamath River. Harmful Algae, 46, pp.71-81.

[6] California Guidance for Cyanobacteria HABs in Recreational Inland Waters, https://mywaterquality.ca.gov/habs/resources/habs_response.html

[7] see *Sediment for Survival* at https://www.sfei.org/documents/sediment-for-survival

whether the reasonably foreseeable Delta Conveyance Project and B.F. Sisk Dam Raise (previously evaluated as an alternative in the San Luis Low Point Improvement Project Draft EIS in July 2019 and again in a 2020 Supplemental Draft EIS) would address refuge delivery uncertainties. Further, in consultation with the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife, the EPA recommends that the EIR/EIS discuss whether project operations would improve water quality in the refuges.

Air Quality

The San Joaquin Valley Air Basin, San Francisco Bay Area Air Basin and subbasins are all in nonattainment of National Ambient Air Quality Standards for ozone and respirable particulate matter constituents (Tables 3.4-2/3/4/5), and where "serious," various plan requirements and transportation performance standards are triggered (p. 3.4-15). The EIR acknowledges that construction-related emissions from the Proposed Project and each of its Alternatives would significantly exceed the Bay Area Air Quality Management District's daily mass emissions thresholds, even with the proposed mitigation measures (p. 3.4-66; Tables 3.4-6; 4.3-9). The Draft EIR states that all construction vehicles and commuter vehicles would access the construction area by utilizing State Route 152 and the vehicle fleet needed for project construction would include heavy equipment, concrete trucks, water tankers, dump trucks to import or remove materials, and delivery vehicles. The EIR notes that the daily Vehicle Miles Travelled for the peak construction periods were estimated and that the project would increase the VMT by approximately 2% over existing levels (Section 3.18). The EIR also notes that the maximum annual number of total truck trips associated with importing materials onto the construction sites and removing waste materials is 11,044 trips occurring in years four through seven of construction (p. 2-33).

Given the magnitude and duration of this construction project, the EPA recommends the following minimization and mitigation measures be considered, in addition to the dust and emission control measures listed in Mitigation Measures AQ-1 and AQ 2 (p. 3.4-63).

Mobile and Stationary Source Controls:

- If practicable, lease new, cleaner equipment using the best available emissions control technologies that meets the most stringent of applicable federal or state standards:
- Consider ways to reduce the number of commuter vehicles travelling to and from the project site, per shift. This could include carpooling subsidies or providing van or bus transit.
- On-highway vehicles should meet, or exceed, EPA exhaust emissions standards for model year 2010 and newer heavy-duty on-highway compression-ignition engines (e.g., drayage trucks, long haul trucks, refuse haulers, shuttle buses, etc.
- Consider using electric vehicles, natural gas, biodiesel, or other alternative fuels during construction and operation phases to reduce the project's criteria and greenhouse gas emissions.
- Plan construction scheduling to minimize vehicle trips.
- Prohibit engine tampering to increase horsepower, except when meeting manufacturer's recommendations.

Administrative Controls:

- Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips.
- Avoid routing truck traffic near sensitive land areas.
- Recycle construction debris to the maximum extent feasible.
- Post visible speed limit signs at construction site entrances.

- Consider staggering construction schedules with other projects having emissions above NAAQS thresholds, e.g., High-Speed Rail through Pacheco Pass adjacent to State Road 152 (p. 3.12-87)
- Identify where implementation of mitigation measures is economically infeasible.

Fugitive Dust Source Controls:

- Stabilize heavily used unpaved construction roads with a non-toxic soil stabilizer or a soil weighting agent that will not result in loss of vegetation or increase other environmental impacts.
- Provide gravel ramps of at least 20 feet in length at tire washing/cleaning stations and ensure construction vehicles exit construction sites through treated entrance roadways unless an alternative route has been approved.
- Use sandbags or equivalent BMPs to prevent run-off to roadways in construction areas adjacent to paved roadways and ensure consistency with the project's Storm Water Pollution Prevention Plan.
- Sweep the first 500 feet of paved roads exiting construction sites, other unpaved roads en route from the construction site, or construction staging areas whenever dirt or runoff from construction activity is visible on paved roads, or at least twice daily (less during periods of precipitation).
- Cover or treat soil storage piles with appropriate dust suppressant compounds and disturbed areas that remain inactive for longer than 10 days.
- Provide covers for vehicles used to transport solid bulk material on public roadways and that have potential to cause visible emissions.
- Alternatively, sufficiently wet and load materials onto the trucks in a manner to provide at least one foot of freeboard.
- Use wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) where soils are disturbed in construction, access and maintenance routes, and materials stockpile areas. Keep related windbreaks in place until the soil is stabilized or permanently covered with vegetation.

Consider substantively connecting the Proposed Project's air quality emissions with likely health consequences, e.g., hospital admissions, mortality. The *Guidance to Address the Friant Ranch Ruling for CEQA projects in the Sacramento Metropolitan Air District* is an example of such an analysis and may be able to be adapted to other geographic areas with input from the applicable air districts to evaluate health effects quantitatively.[8]

Climate Change and Greenhouse Gas Emissions

The levels of greenhouse gas emissions generated by project activities are expected to be significant under all alternatives but could be reduced to less than significant with mitigation (Table 3.10-2). EPA appreciates that mitigation measures GHG-1 (to electrify or use renewable/bio- diesel construction equipment) and GHG-2 (purchase carbon offsets) are offered; however, it is not clear whether actual reductions in emissions or air quality improvements would be realized given that implementation of GHG-1 is subject to local availability and economic feasibility and carbon offsets may be purchased for other regions or states (p. 3.10-4). The EPA recommends that firm commitments be made to use a certain percentage of GHG-reducing construction equipment and that carbon credits be used regionally so that adverse impacts could be offset with local benefits.

[8] www.airquality.org/LandUseTransportation/Documents/SMAQMDFriantRanchFinalOctober 2020.pdf, Report (airquality.org)

While the Draft EIR acknowledges the potential effects of climate change in Chapters 2 and 3 and recognizes the vulnerability to regional water supplies, the analysis uses a model centered on 2035 for hydrology and sea level rise, which, while appropriate for assessing near-term climate effects for analysis of operations of existing water infrastructure, offers less relevant insights for a proposed reservoir which is not expected to begin operating until the 2030s (p. 3.10-4). The EPA recommends revising future climate change assessments for this project to include a planning horizon that reflects the timeline of the project, such as the "mid-century" scenario (2045-2074, centered on 2060) analyzed by DWR's Bay-Delta Office for California's Fourth Climate Change Assessment.[9] As noted above, CalSim 3.0 is likely better-suited to assess impacts of climate change on project operations than CalSim-II.

The EPA recommends quantifying the greenhouse gas emissions from land converted to flooded lands to supplement any analysis of greenhouse gas emissions from direct project construction impacts. We further recommend discussing the elements of this project that would offset or reduce its direct and indirect GHG emissions by expanding renewable energy or improving energy efficiency as guided by the Valley Water Climate Change Action Plan (p. 3.8-4) and California Air Resources Board's Climate Change Scoping Plan (p. 3.10-6). The EIR notes that man-made reservoirs are a globally important source of anthropogenic greenhouse gas emissions, particularly methane. While quantifying greenhouse gas (GHG) emissions may be uncertain due to potential offsets from carbon sequestration of terrestrial vegetation (p. 3.10-8), there are tools available to estimate GHG emissions using default emission factors from the International Panel on Climate Change's *Guidance for National Greenhouse Gas Inventories* and other publicly available data. The EPA recommends that the EIR/EIS use 2019 refinements to the IPCC *Guidance for National Greenhouse Gas Inventories*[10] to calculate carbon dioxide and methane emissions from land converted to flooded lands as the basis for comparing estimated emissions from land-cover types already known to exist in the proposed action's footprint, including wetlands and grazing lands.

[9] Wang, J., H. Yin, J. Anderson, E. Reyes, T. Smith, and F. Chung. 2018. *Mean and Extreme Climate Change Impacts on the State Water Project*. A report for California's Fourth Climate Change Assessment CCCA4-EXT-2018-004. January 2021 from https://www.energy.ca.gov/sites/default/files/2019-12/Water_CCCA4-EXT-2018-004_ada.pdf

[10] https://www.ipcc.ch/report/2019-refinement-to-the-2006-ipcc-guidelines-for-national-greenhouse-gas-inventories/