



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

AUG 31 2015

Mr. Donald Lash
NEPA Document Manager
Western Area Power Administration
114 Parkshore Drive, Folsom, California 95630

Subject: Draft Environmental Impact Statement for the San Luis Transmission Project, Alameda, San Joaquin, Stanislaus, and Merced Counties, California (CEQ # 20150194)

Dear Mr. Lash:

The U.S. Environmental Protection Agency has reviewed the Draft EIS for the San Luis Transmission Project pursuant to the National Environmental Policy Act, Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under § 309 of the Clean Air Act. Previously, EPA provided formal scoping comments for the proposed project, including detailed recommendations regarding purpose and need, range of alternatives, air quality, biological and aquatic resources, and other resource areas of concern (comments submitted January 15, 2014).

The Western Area Power Administration has proposed to construct, maintain, and operate a new transmission line and associated facilities in order to deliver “durable, long-term, cost-certain and efficient” power from federal power generation sites to the major pumping stations of the Bureau of Reclamation’s San Luis Unit (SLU), which delivers water to Reclamation and the federal water service contractors. EPA recognizes the need for continued operation of the SLU facilities upon expiration of the existing transmission contract with Pacific Gas and Electric. We appreciate that Western’s objectives include minimizing environmental effects by maximizing the use of existing transmission corridors and rights of way, and appropriate siting of infrastructure. Nevertheless, we are concerned about the potential impacts to air quality and sensitive aquatic resources that could result from the construction of 95 miles of new transmission lines and associated infrastructure. Such impacts should be avoided to the extent possible in order to fully protect the environment and to demonstrate compliance with Section 404 of the Clean Water Act and EPA’s general conformity regulations.

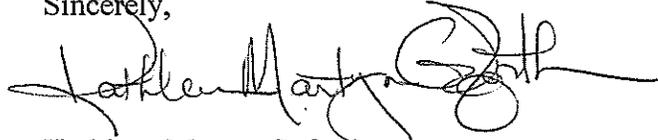
Given the availability of existing transmission infrastructure and capacity, EPA recommends that any decision to build new transmission lines be supported by additional clarification, in the Final EIS, of the costs and benefits associated with the no action and action alternatives. In addition, we are concerned that the narrowly defined objectives for the project may have precluded consideration of whether other renewable sources of power may be available that could meet Reclamation’s needs at a comparable cost with less environmental impact. Within the context of the no action alternative, we recommend consideration of whether opportunities may exist for Reclamation to obtain electricity from new or existing solar or wind power facilities in the vicinity of the SLU, and whether doing so could reduce the power needed from the existing PG&E transmission line and the costs related to the CAISO Tariff.

Based on our review, we have rated all alternatives in the Draft EIS as *Environmental Concerns – Insufficient Information* (EC-2). Please see the enclosed “Summary of EPA Rating Definitions.” Our

detailed comments on the topics mentioned above, as well as potential impacts of climate change on the study area, are enclosed.

Thank you for the opportunity to review this Draft EIS. When the Final EIS is published, please send one hard copy to us at the address above (Mail Code: ENF-4-2). If you have any questions, please contact me at 415-972-3521, or contact Tom Plenys, the lead reviewer for this project. Tom can be reached at 415-972-3238 or plenys.thomas@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathleen Martyn Goforth". The signature is fluid and cursive, with a large initial "K" and "G".

Kathleen Martyn Goforth
Manager, Environmental Review Section

Enclosures: Summary of EPA Rating System
EPA's Detailed Comments

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. ENVIRONMENTAL PROTECTION AGENCY'S DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE SAN LUIS TRANSMISSION PROJECT, ALAMEDA, SAN JOAQUIN, STANISLAUS, AND MERCED COUNTIES, CALIFORNIA, AUGUST 31, 2015

Air Quality – General Conformity

The general conformity regulations provide a step-by-step process, which begins with an applicability analysis. That is, before any approval for a federal action can be provided, the regulating federal agency must evaluate whether, on a pollutant-by-pollutant basis, a general conformity determination is required. If the general conformity regulations are found to apply to the federal action, the regulating federal agency must next conduct a conformity evaluation, issue a draft determination for public review, and then publish the final determination.

The discussion and analysis in the Draft EIS do not demonstrate compliance with EPA's general conformity regulations (40 CFR 93.150-165). The Draft EIS states "*emissions of NO_x and PM₁₀, but not PM_{2.5} or VOC, during construction could exceed San Joaquin Valley Air Pollution Control District significance thresholds and EPA's General Conformity applicability rate for NO_x*" (p. 4-16). The Draft EIS further states "*Western anticipates that overlapping construction activities or phases could be managed to ensure that the NO_x, PM₁₀, PM_{2.5}, and VOC emissions would be less than the Bay Area Air Quality Management District and SJVAPCD significance thresholds and EPA's General Conformity applicability rates. However, quantification of actual construction emissions will depend on final engineering that is not available at this time*" (p. 4-16).

Recommendations:

Include in the Final EIS one of the following to address general conformity compliance:

- A revised emissions estimate and construction schedule, if necessary, to demonstrate that the proposed project would not exceed the general conformity de minimis thresholds;
- A draft general conformity determination; or
- A commitment to prepare a general conformity determination (following the public notice requirements and timeframes of 40 CFR 93.156). EPA recommends that, upon completion of the general conformity determination, the Record of Decision identify any measures required to demonstrate conformity, such as obtaining offsets from an air district.

If a general conformity determination is required or will be prepared in the future, the EPA recommends close coordination with the SJVAPCD and BAAQMD. In addition to working with regional air quality agencies, Western is welcome to consult with the EPA prior to finalizing the general conformity determination. To consult with the EPA, please contact Tom Kelly in our Air Division at (415) 972-3856, or by email at Kelly.Thomasp@epa.gov.

Air Quality – Mitigation

Given the nonattainment status of the San Joaquin Valley under SJVAPCD's and BAAQMD's jurisdiction, the short- and long-term adverse effects identified and the numerous projects proposed in the project area, all feasible measures should be implemented to reduce and mitigate air quality impacts to the greatest extent possible. We encourage Western to identify up-to-date mitigation measures, incorporate the

use of the best available technology and emission controls, and ensure consistent implementation of these measures for all future activities.

Recommendations:

Include, in the Final EIS, an updated list of all mitigation measures. In addition to measures necessary to meet all applicable local, state, and federal requirements, we recommend that the following measures be included:

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour. Limit speed of earth-moving equipment to 10 mph.

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 used for future covered activities 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.).¹
 - *Nonroad Vehicles & Equipment* - Nonroad vehicles & equipment used for all covered activities 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.).²
 - *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.

¹ <http://www.epa.gov/otaq/standards/heavy-duty/hdci-exhaust.htm>

² <http://www.epa.gov/otaq/standards/nonroad/nonroadci.htm>

- *Advanced Technology Demonstration & Deployment* – Western is encouraged to demonstrate and deploy heavy-duty technologies that exceed the latest US EPA emission performance standards for the equipment categories that are relevant for the covered activities (e.g., plug-in hybrid-electric vehicles - PHEVs, battery-electric vehicles - BEVs, fuel cell electric vehicles - FCEVs, etc.).

Administrative controls:

- Specify the means by which Western would minimize impacts to sensitive receptors, such as children, the elderly, and the infirm. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.
- 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.

Update, as necessary, the Final EIS to reflect the latest State and federal attainment designations for air quality.

Update, in the Final EIS, the air quality analysis to reflect additional air quality improvements that would result from adopting specific air quality measures.

Describe, in the Final EIS, how these mitigation measures would be made an enforceable part of future covered activities. We recommend implementation of applicable mitigation measures prior to or, at a minimum, concurrently with the commencement of construction of all future activities.

Waters of the United States and Section 404(b)(1) Guidelines

The purpose of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of waters of the U.S. (WUS). These goals are achieved, in part, by prohibiting discharges of dredged or fill material that would result in avoidable or significant adverse impacts on the aquatic environment. Pursuant to Section 404 of the CWA, discharge of dredged or fill material to WUS requires a permit issued by the Army Corps of Engineers. If a permit is required, the EPA will review the project for compliance with the Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230) (Guidelines), promulgated pursuant to Section 404(b)(1) of the CWA. The Guidelines presume that practicable alternatives to discharges in special aquatic sites exist for non-water dependent projects, unless clearly demonstrated otherwise.

The EPA is concerned about the potential adverse impacts to aquatic resources that could result from the proposed project. The Draft EIS identifies 214.5 acres of potentially jurisdictional wetlands and other WUS within the study area (p. 4-52). Table 4.16-1 indicates that 213 named and unnamed streams and canals may be crossed. The Draft EIS states that, because the exact locations of project features are not yet known, the estimates of temporary and permanent impacts to vegetation and landform type were developed by calculating the proportion of the total acres in each segment corridor that would be subject to disturbance, and applying that proportion to the amount of each landform type in the corridor (p. 4-45). Based on this calculation method, Table 4.4-1 estimates 16.74 acres of sensitive creeks, waters and

wetlands could be temporarily or permanently disturbed, including over 3 acres of permanent impacts to vernal pools. A formal jurisdictional delineation of the full extent of WUS on the project site has not yet been completed, nor verified by the Corps.

We note that the corridor alternatives identified as “environmentally preferred” within the San Luis and Central segments would have the most impacts to ephemeral creeks, freshwater marshes, vernal pools and jurisdictional resources (p. 2-29 and 30). Given the scale and nature of the action, a complete planning level assessment of aquatic resources would help further differentiate between alternatives and refine potential acreage impacts. Such an evaluation includes utilization of existing water resource data contained in not only the National Hydrography Dataset, but also the National Wetland Inventory, USGS topographic maps and high resolution digital photography, as well as necessary field checking of the alternatives. Once the environmentally preferable alternative is identified, a jurisdictional delineation should be conducted prior to final design of the selected transmission line alignment. With a jurisdictional delineation, the applicant can use the design flexibility inherent in transmission line design (e.g., adjust tower placement and access roads) to demonstrate the alignment is the Least Environmentally Damaging Practicable Alternative (LEDPA), in compliance with the Guidelines.

Recommendations:

Discuss, in the Final EIS, the process to be used to demonstrate compliance with the CWA Section 404 (b)(1) Guidelines.

Complete at least a planning level assessment for potential impacts to WUS prior to issuance of the Final EIS. Include, in the Final EIS, estimated acreage impacts to WUS based on the planning level assessment for each alternative within each segment. Modify the environmentally preferable alternative selected for each segment, as necessary, to ensure that the selected alignments would represent the LEDPA.

Include, in the Final EIS, additional measures to minimize impacts to aquatic resources, such as reducing the width of access roads, constructing bridges over WUS and increasing the buffer widths to minimize indirect impacts to aquatic resources.

In the Biological Resources chapter, the Draft EIS incorrectly states that “all wetlands are subject to federal and state regulations”. The Draft EIS also incorrectly states that there is no federal jurisdiction over wetlands that are hydrologically isolated (p. 3-34 & 35).

Recommendations:

Clarify, in the Final EIS, that waters, including wetlands, adjacent to a jurisdictional tributary, and wetlands and other waters with a significant nexus to a Traditional Navigable Water (TNW) are regulated. This applies to vernal pools, swales and seasonal wetlands. Note that the Clean Water Rule: Definition of “Waters of the United States” went into effect on August 28, 2015.³

Clarify, in the Final EIS, that hydrologically isolated wetlands are regulated if they have a significant biological or chemical nexus to a TNW.

³ Clean Water Rule: Definition of “Waters of the United States”, Final Rule, US Environmental Protection Agency, 40 CFR Parts 110, 112, 116, et al.

Purpose and Need

Power Requirements and Costs

The Draft EIS states that the existing transmission contract with PG&E expires on March 31, 2016 and PG&E has stated it will not renew the existing contract. The estimated cost to Reclamation of taking service under the California Independent System Operator Tariff is expected to range from \$5.3 million to \$8.8 million per year (p. 1-2). Western is evaluating Reclamation's request for transmission service arrangements, which could include the construction of new federal transmission lines at a construction cost of \$400 million. Reclamation has determined that constructing, operating and maintaining a new transmission line outside of the CAISO grid over a 50-year period would be more cost effective than paying the CAISO Tariff charges over the same period.

The Draft EIS indicates that, if Western constructs its own transmission line, Reclamation's operating costs would be paid for by its water service contractors (p. ES-2). The Draft EIS does not include an estimate of those annual operating costs, nor does it specify whether the water service contractors would pay the same or an additional amount for operations, should Reclamation continue to use the existing PG&E transmission line as part of the CAISO grid. The Draft EIS is also silent on whether or not the contractors would pay any of the costs of constructing the proposed new transmission line.

Recommendations:

Include, in the Final EIS, the estimated annual payment from federal water service contractors to operate the proposed project.

Clarify, in the Final EIS, whether and, if so, how much, water service contractors would pay for operation of the existing transmission network if Western decided not to construct a new transmission line.

Include, in the Final EIS, 1) the power requirements to operate the SLU, 2) the current available capacity of the existing PG&E transmission line; and 3) the estimated capacity of the PG&E transmission line in future years.

Incorporate a tabulated cost comparison, including any key assumptions, to support the conclusion that constructing a new transmission line would be "substantially below the anticipated costs that Reclamation would incur under the CAISO Tariff over the same 50 year period" (p. 1-3). Include the source and cost of the power to be utilized during the 5 year period between the expiration of the existing PG&E contract and when the proposed project would be operational (p. 2-5). Clarify whether or not the contractors would pay any of the construction costs.

Alternative Sources of Power

The project objectives specify "efficient transmission delivery of CVP (Central Valley Project) power from federal power generation sites" (p. 1-3). EPA is concerned that this constraint, while relevant to Western's mission, may have unduly precluded consideration of whether other power sources with the potential to meet Reclamation's need to be able to "pump, store, convey, and deliver federal water via the SLU at a reasonable cost" may be available. The Draft EIS assumes that, under the no action alternative, Reclamation would continue to use PG&E's transmission line and pay the associated costs pursuant to the CAISO Tariff. EPA notes that several solar energy facilities are located, or under construction, in close

proximity to the SLU, including the Wright Solar Park (200 megawatt solar photovoltaic) and the Quinto Solar Project (110 MW PV), both of which have undergone environmental review (Table 4.17-1), as well as the San Luis Renewables, LLC Solar Generation Project. The Draft EIS does not discuss whether these facilities, with or without an energy storage component, may be available to meet the energy requirements of the SLU, nor whether the cost effectiveness and feasibility of the no action alternative would change if Reclamation were to secure such a local source of renewable power to support some or all of the SLU's power needs.

The passage of California's A.B. 2514, which mandates 1.325 gigawatts of new energy storage by California's three large investor-owned utilities by 2020, has resulted in contracts being secured for hundreds of megawatts of new energy storage. The "road map" for smoothly deploying energy storage into California's grid, which was detailed in a report released in January 2015 by CAISO, the California Energy Commission, and the California Public Utilities Commission, should make it easier to use batteries and other devices to store renewable power and release it at more opportune times, thereby enabling greater amounts of energy from distributed solar systems to be fed into the grid.

Recommendations:

Consider whether obtaining power from nearby solar or wind energy generating facilities could reduce or eliminate the need for power from the existing PG&E transmission line or for new transmission lines and associated infrastructure. Discuss, in the Final EIS, the extent to which utilizing or constructing renewable energy facilities, with or without an energy storage component, to provide the power necessary to operate the SLU unit would alter the cost effectiveness and feasibility of the no action alternative.

Discuss whether local sources of power could reduce, or eliminate, the need to connect to the Tracy or Dos Amigos substations and, if so, how the cost of that approach would compare to that of the proposed project or the no action alternative.

Clarify, in the Final EIS, the rationale for including new transmission lines north to Tracy as well as south to Dos Amigos, and whether Reclamation anticipates utilizing power from both substations.

Discuss, in the Final EIS, to what degree Reclamation could secure renewable sources of power from the Tracy substations, if the existing PG&E line is utilized. Under that scenario, EPA would encourage Reclamation to commit to working with the California Public Utilities Commission and the CAISO to maximize the transmission of energy from wind, solar or other renewable sources to support the power needs of the SLU.

Climate Change

We note the reference to the Council on Environmental Quality's December 18, 2014⁴ revised draft guidance that describes how federal departments and agencies should consider the effects of greenhouse gas emissions and climate change in their NEPA reviews (p. 3-15). The revised draft guidance supersedes the draft greenhouse gas and climate change guidance released by CEQ in February 2010. This guidance

⁴ The draft guidance is available in full at: http://www.whitehouse.gov/sites/default/files/docs/nepa_revised_draft_ghg_guidance_searchable.pdf

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.

The EPA commends Western for including estimates of greenhouse gas emissions from the project. In disclosing the potential impacts of the proposed project and alternatives, consideration should be given to whether and to what extent the impacts, across all resources, may be exacerbated by expected climate change in the project area.

Recommendations:

Include, in the Final EIS, a summary discussion of climate change and ongoing and reasonably foreseeable climate change impacts relevant to the project, based on U.S. Global Change Research Program⁵ assessments, to assist with identification of potential project impacts that may be exacerbated by climate change and to inform consideration of measures to adapt to climate change impacts.

Considering that the project is planned to be in operation for up to 50 years, provide a more robust discussion of the anticipated effects of climate change upon overall project goals and objectives. Compare the action alternatives with regard to their vulnerability to such effects and indicate what actions, if any, could be taken to minimize these effects where they are found to represent a risk to any goals or stipulations.

Consider, in the Final EIS, practicable changes to the proposal to make it more resilient to anticipated climate change, as appropriate.⁶

⁵ <http://www.globalchange.gov/>

⁶ See footnotes 52 and 53 of the CEQ's December 2014 revised draft guidance for additional information and references on climate change adaptation and resiliency.

