DRAFT (DO NOT CITE)

Date: February 28, 2023

To: United States Army Corps of Engineers

From: Delta Independent Science Board

Subject: Comments on the Delta Conveyance Project Draft Environmental Impact Statement

The Delta Independent Science Board (Delta ISB) reviewed the Delta Conveyance Project draft Environmental Impact Statement (EIS) in accordance with our responsibilities to evaluate the broad range of scientific programs that support adaptive management of the Delta, including review of major Delta Conveyance proposals. Our focus was on a scientific/technical assessment of the quality and scope of the scientific analyses used for informing decisions. Due to the length of the draft EIS, the comprehensive coverage of the topics, and the short period allowed for review, the Delta ISB decided to provide a general review of selected environmental topics.

We believe that the major concerns and comments provided in our recent review of the draft Delta Conveyance Project Environmental Impact Report (EIR) also apply to the draft EIS and should be carefully considered. We are including our review of the draft EIR as part of our review of the draft EIS (see attachment). In the draft EIR, the Delta ISB identified some shortcomings in the science applied and concluded that it showed a lack of "1) clear illustrations of how the proposed project achieves the water supply and environmental benefits claimed; 2) clear evidence to support some of the findings of less than significant impacts; and 3) clear descriptions of uncertainty stemming from climate effects, mitigation effectiveness, analytic methods, and incomplete quantitative and mechanistic understanding of some underlying processes and relationships." These and other omissions lead to a partially inadequate representation and discussion of potential project impacts and benefits.

The draft EIS relies heavily on analyses and conclusions of the draft EIR. It appears that a comprehensive re-assessment of assumptions, methods, and analyses that were reported in the EIR was not performed. New scientific approaches were not specifically identified. However, relative to the draft EIR, the draft EIS shows several improvements. The cumulative analysis was somewhat more comprehensive and the presentation of material was clear and concise, although the scope of results is narrower than in the draft EIR. Limiting the discussion to the preferred tunnel alignments helped to streamline the report. The explanation of which planning horizons were being compared was clarified in some cases.

In addition, we add the following specific comments on the draft EIS:

1. The draft EIS emphasizes the impacts of construction, rather than project operations, on outcomes. This concern is particularly acute for understanding the projected impacts on the aquatic ecosystem and for evaluating effectiveness of mitigation efforts. The draft EIS carries forward the conclusions that mitigation will be able to fully offset harms, which the available science suggests is uncertain.

2. Some risks are given uneven treatment. For example, the draft EIS provides relatively detailed descriptions of the potential risks of construction and maintenance-related accidental release of construction chemicals and wastes to surface waters, and resuspension of contaminated sediments due to construction and dredging (chapter 3.4) for mitigation and restoration projects, desalination plants, and related actions. However, such risk analyses are entirely missing for the project alternatives. This omission makes it appear as if such effects would not occur during project construction and operation for the project alternative.

3. The draft EIS discusses more of the presumed consequences of the no-action-alternative relative to the draft EIR, but it does not provide detailed analyses (as stated on page 2-18) to improve understanding of the effects of project alternatives. The qualitative discussion of future alternatives demonstrates that those managing the water delivery system have multiple options for compensating for changing variability in water supply without the Delta Conveyance Project, and that each option has associated effects on the environment. However, without making projections that include future operation, the analysis does not provide a full accounting of net changes due to the Delta Conveyance Project.

4. Because future climate change influences on operations were not included in the analysis of future conditions (Table 3.9-1), the analyses provided are incomplete for understanding project effects on many endpoints. Of major concern is its final conclusion that the effect of climate change on all action alternatives “does not appear to be significant” (section 3.6.4.1, page 3.6-13) despite several impacts (e.g., critical fish habitat, flooding, salinity intrusion) being discussed prior to that statement. The Delta ISB EIR review identified climate change assessment as an area of major concern, in part because of the potential for effects beyond 2040 and compounding effects (see Delta ISB review: major concern #3 and section 4.3).

Because the draft EIS appears to have relied entirely on draft EIR modeling, it is unclear how its authors arrived at the aforementioned conclusion without addressing the Delta ISB's concerns. The draft EIS correctly identifies some fundamental questions related to climate change and some implications of those questions on conveyance alternatives (section 3.6.2). However, it is not apparent that additional long-term climate change analyses were conducted for this report, beyond the design modeling. The discussion in section 2.4.3 implies that a time horizon of 2100 was used in analysis, but it appears to have been applied only for project design and not impact assessment, where a time horizon of 2040 was used. The draft EIS refers to a 100-year maintenance schedule of the Delta Conveyance Project, which confirms the need to consider its long design life.

5. Some conclusions that differ from the draft EIR are not well documented or explained. The draft EIS covers terrestrial species not evaluated in the EIR, but the basis for the conclusions drawn is not provided. Similarly, the justification for differing conclusions about the significance of a few socio-economic endpoints, relative to the EIR, are not well explained.

6. The draft EIS is lacking analyses on water quality effects on biota and indirect pathways of effects on human health and well-being. With regard to water quality (including nutrients and contaminants), the draft EIS relies entirely on information provided in the draft EIR, and focuses on public health considerations (page 3.17-44), with the only exception being selenium effects on birds (page 3.5-60). For example, the potential for changes in nutrient concentrations to interact with hydrologic change to exacerbate ecosystem and public health impacts associated with harmful algal blooms (HABs) is not addressed. Greater detail on the potential effects of construction and maintenance of the project alternatives, and the consequences of altered flows on species of concern and their habitat are needed to adequately assess potential project effects. In addition, such potential changes in the occurrence of HABs and other biotic effects are not considered in an environmental justice framework to determine the extent to which communities already impacted by ecosystem degradation will be disproportionately impacted by future changes associated with the construction and operation of the project.

7. The summary of draft EIS Section 3.10.1.1 (Geology and Seismicity) includes information about Bay area faults that could lead to a biased interpretation of the seismic hazard in the Delta. This EIS section begins by referencing the active faults in the Bay area that are outside the study area and then alludes to the "blind thrusts" beneath the Delta. The only blind thrust mentioned by name is

the West Tracy Fault. The seismic sources in the Bay area are much more active than the sources in the Delta but are less important for projecting risk within the Delta. The emphasis on the Bay area faults could be misleading to readers unfamiliar with these nuances, if they assume a connection between the Bay area faults and the potential for levee failure. Another potential concern that is not addressed is whether levees can withstand tunnel boring beneath them.

Attachment
Review of the Draft Environmental Impact Report for the Delta Conveyance Project by the Delta Independent Science Board