

INDEPENDENT SCIENTIFIC PEER REVIEW OF PERFORMANCE MEASURES FOR DELTA PLAN ECOSYSTEM AMENDMENT

Background and Review Context

The Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act) requires the Delta Plan to be based on best available scientific information (Water Code section 85308(a)) and include performance measures that enable the Delta Stewardship Council (Council) to track progress in meeting the objectives of the Delta Plan. (Water Code section 85211). The performance measures must include “quantitative or other measureable assessments of the status and trends” of the “health of the Delta’s estuary and wetland ecosystem for supporting viable populations of aquatic and terrestrial species, habitats, and processes, including viable populations of Delta fisheries and other aquatic organisms,” as well as the “reliability of California water supply imported from the Sacramento River or the San Joaquin River watershed.” (Water Code section 85211).

The Council is in the process of developing an approach to amending Chapter 4 of the Delta Plan (Ecosystem Amendment) to update its strategic direction for attainment of the coequal goal of protecting, restoring, and enhancing the Delta ecosystem. The Ecosystem Amendment effort incorporates key scientific findings and provides potential revisions to Delta Plan Chapter 4, including revised policies, recommendations, and performance measures. As required by the Delta Reform Act, the performance measures include quantified and otherwise measurable targets associated with achieving the objectives of the Delta Plan. (Water Code section 85308(b)). The Ecosystem Amendment includes a set of six proposed ecosystem amendment performance measures (output and outcome) that will complement an existing Delta Plan portfolio of thirty-two performance measures with quantified targets. Each performance measure has a detailed technical datasheet describing the basis for selection, methods for setting targets, data sources and method of analysis, and reporting for that performance measure.

The mission of the Delta Science Program is “to provide the best possible unbiased scientific information to inform water and environmental decisionmaking in the Delta.” This mission is to be carried out, in part, through “promoting independent scientific peer review...” (Cal. Water Code § 85280(b)(4).) In this request for independent scientific peer review, the Delta Science Program will coordinate focused individual science reviews of five of the six proposed performance measures for the Ecosystem Amendment by independent scientific experts with knowledge in the areas of expertise correlating to the respective proposed performance measure. These five performance measures relate to subsidence

reversal, fish barriers, seasonal inundation, restoration acreage, and salmon population doubling. The sixth performance measure, which is not included in this peer review, relates to funding of restoration within the Delta and does not have the scientific and technical focus of the other performance measures.

The Delta Independent Science Board (Delta ISB) has provided preliminary feedback on the draft Ecosystem Amendment performance measures via high-level comments from individual Delta ISB members. The Delta ISB's input was incorporated into the revised performance measures that are the subject of this independent scientific peer review. The Delta ISB will have an opportunity to provide additional review of the revised performance measures when the Ecosystem Amendment public review draft becomes available.

The proposed performance measures are a component of the Ecosystem Amendment and will be part of the project description that will be presented to the Council for endorsement for the California Environmental Quality Act (CEQA) environmental review process. As part of the project description preparation process, the Council plans to release a proposed draft of the Ecosystem Amendment for a 30-day public review period in late 2019. The public review draft will include Delta Plan proposed revisions to the Chapter 4 narrative, proposed draft policies and recommendations, and the proposed draft performance measures. Council staff will review and address public comments on the proposed draft prior to presenting the proposed Ecosystem Amendment project description to the Council. Prior to the presentation to the Council, the performance measure datasheets also will be revised in response to the comments received through this independent scientific peer review.

Charge for the Review

Each scientific reviewer is charged with evaluating a subset of the proposed performance measures based on relevant expertise. The reviewer will assess whether the respective proposed performance measures include quantitative metrics and measurable targets, are based on best available scientific information, and provide appropriate and informative evaluations of progress toward the attainment of the proposed Ecosystem Amendment goals and strategies and the coequal goal of protecting, restoring, and enhancing the Delta ecosystem. The goal of this independent scientific peer review process is to inform the development of a set of performance measures based on the best available scientific information so that the Council can evaluate the effectiveness of the Delta Plan in a quantitative and measurable way.

For each of the assigned performance measures, each reviewer is to provide written responses to the charge questions below. The reviewer is asked to provide comments regarding quantifiable and measurable attributes of the measures, clarity and precision of the language, and adequate and effective reporting processes. In their comments, each reviewer is asked to include support and justification for responses to the charge questions, e.g., what additional information or sources should be included for completeness.

Charge Questions:

1. How clear and thorough are the performance measure's metric, baseline, and target? What, if any, additional information is needed?
2. How clear is the basis for selection of the performance measure? How complete are the scientific rationale, the justification, and the supporting references for the selection?
3. How clear and complete is the scientific basis for setting the targets? How complete is the consideration of key scientific references, available data, and existing monitoring capabilities?
4. How achievable are the targets relative to the stated time scales?
5. How well were scientific uncertainties (both outside and within management control) incorporated in the development of the targets and in the assessment of progress towards the targets?
6. Are the identified data sources complete and appropriate to support robust assessment of the performance measure?
7. How well are adaptive management and alternative actions considered in performance assessments and reporting?

Review Materials

1. [Datasheet for Subsidence Reversal for Tidal Reconnection PM 4.12](#)
2. [Datasheet for Barriers to Migratory Fish Passage PM 4.13](#)
3. [Datasheet for Seasonal Inundation PM 4.15](#)
4. [Datasheet for Acres of Natural Communities Restored PM 4.16](#)
5. [Datasheet for Doubling Goal for Central Valley Salmon Natural Production PM 4.6](#)

Supplemental Materials

1. [Preliminary chapter 4 narrative for the Ecosystem Chapter](#)
2. [Datasheet for Increase Funding for Restoring Ecosystem Function PM 4.14](#)

3. Council Synthesis Papers:

- Climate Change and the Delta: A Synthesis
- Towards the Protection, Restoration and Enhancement of the Delta Ecosystem: A Synthesis
- Delta Ecosystem Stressors: A Synthesis

Background Materials

1. Delta ISB Comments on the Draft Delta Plan Ecosystem Amendment Performance Measures
 - a. [Cover Letter from Delta ISB Chair, 09/27/2019](#)
 - b. [Compilation of Individual Comments, 09/09/2019](#)
2. Delta Plan Performance Measures Adopted in 2018. The ecosystem amendment performance measures are proposed to supplement the existing set of thirty-two performance measures adopted by the Council in 2013, 2016, and 2018. (Do not comment on the existing performance measures, as these have been already adopted and are not a subject of revisions at this point.)
 - a. [Appendix E \(2018\)](#)
 - b. [Performance Measures Website](#)