



Delta Independent Science Board

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Martina Koller
Program Manager II, Performance Measures
Delta Stewardship Council
980 Ninth Street
Sacramento, California 95814

Sent via e-mail to Martina.Koller@deltacouncil.ca.gov

**Subject: Comments on the Draft Delta Plan Ecosystem
Amendment Performance Measures**

Dear Martina,

Pursuant to Water Code Section 85308(a), the Delta Stewardship Council (hereafter, Council) requested preliminary feedback from the Delta Independent Science Board (Delta ISB) on the Draft Delta Plan Ecosystem Amendment Performance Measures. Specifically, we are responding to your request on August 21, 2019, to address the following questions:

1. Given the goals and strategies for protecting, restoring, and enhancing the Delta ecosystem in the 2009 Delta Reform Act, and the core strategies identified in the proposed Chapter 4 amendment, are the proposed ecosystem performance measures appropriate, given the current scientific knowledge, available data, and monitoring capabilities?
2. Are the proposed ecosystem performance measures informative to provide measureable assessments of the status and trends of the health of the Delta as outlined in the ecosystem sub-goals of the Reform Act (Water Code Section 85302(c))?
3. Are the scale and time of the targets and measurement intervals appropriate for the proposed measures based on available scientific information and baseline/monitoring data?

Based on this request, individual Delta ISB members provided high-level comments prior to the Delta ISB's meeting on September 12, 2019. These comments were summarized and are available on-line as part of the documents for this meeting (see [individual comments](#)¹). During its September 12 meeting, the Delta ISB identified common themes represented across the comments and discussed the comments with you and staff from the Council (Ron Melcer, Project Manager/Technical Lead for the Delta Plan Ecosystem Amendment and Cory Copeland, Ecosystem Amendment Performance Measure subject matter expert).

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Joy Zedler, Ph.D.

¹ <http://www.deltacouncil.ca.gov/pdf/isb/meeting-materials/2019-09-09-isb-eco-pm-discussion.pdf>

The following concerns were noted in the comments of individual members of the Delta ISB:

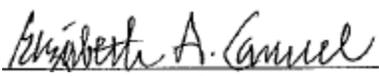
- The scientific basis for some of the targets associated with the performance measures was unclear.
- The validity of the timescale for reaching the targets was ambiguous, especially given expected changes in the Delta system, potential changes in the political landscape, and funding uncertainties.
- In their present form, the performance measures do not adequately address uncertainties. As an example, some targets depend on sea level rise and could be phrased in terms of their relationship(s) to sea level rise, thus allowing for uncertainties in projecting sea level rise.
- Some targets seemed overly ambitious and/or unrealistic. For example, specific concerns were voiced about the target of “zero new nonnative invasive species of fish, plants, and invertebrates established in the Delta by 2030.” This seems like a virtually impossible target to achieve.
- Adaptive management and alternative actions were not considered sufficiently if targets are not met.

Some of these points were clarified during our discussion with you and Council staff during our September 12 meeting. Based on this discussion, the Delta ISB recommends that the following be considered in the next round of revisions to the performance measures:

- Clarify the assumptions that form the basis for each performance measure.
- Provide more background information about uncertainties and incorporate uncertainties into the targets.
- Consider bracketing a range of values as the target for performance measures, as appropriate, rather than targeting a single number.
- Use the annual reporting and 5-year reviews as a mechanism to assess whether the system is moving towards the targets. Consider setting expectations based on 5- to 10-year averages to provide a “check” on the rate of progress.
- Consider use of an independent body or review structure to assess progress towards meeting the targets.
- Engage in more outreach with stakeholders as performance measures and targets are determined. Notably, try to include stakeholders beyond the current stated focus on state and federal agencies.

Overall, the Delta ISB recognizes the challenges associated with developing performance measures and strongly commends the Council for its efforts. The Delta ISB hopes that these comments will aid in developing performance measures that have (1) strong scientific underpinnings, (2) metrics for monitoring and making adjustments when needed, and (3) targets that are both realistic and feasible. We look forward to providing a more detailed review when the documents are ready for comment.

Yours sincerely,


Elizabeth A. Canuel, Ph.D.
Delta ISB Chair


Tracy K. Collier, Ph.D.
Delta ISB Member