



Delta Science Program

DELTA STEWARDSHIP COUNCIL

715 P Street, 15-300
Sacramento, CA 95814

916.445.5511
DELTACOUNCIL.CA.GOV

CHAIR
Virginia Madueño

MEMBERS
Diane Burgis
Frank C. Damrell, Jr.
Ben Hueso
Julie Lee
Maria Mehranian
Daniel Zingale

EXECUTIVE OFFICER
Jessica R. Pearson

September 29, 2023

Ted Craddock, State Water Project Deputy Director
California Department of Water Resources
1416 Ninth St, P.O. Box 942836
Sacramento, CA 94236

Delivered via email: Ted.Craddock@water.ca.gov

RE: Independent Peer Review of the State Water Project Delivery Capability Report, Part 2

Dear Mr. Craddock:

The Delta Science Program is pleased to present the enclosed independent reviews of the State Water Project Delivery Capability Report (DCR). The transmittal of these reviews fulfills a request from the Department of Water Resources to facilitate a two-part independent peer review of the data and methods used for the DCR. The first review was transmitted to DWR in July 2023. The second part, enclosed with this letter, addresses the use of new risk-informed climate change scenarios to plan future delivery capabilities.

Overall, the reviewers concluded that 1) the new procedure is appropriately documented with rational and defensible evidence, 2) the new procedure is an improvement over previous approaches to climate scenario development, and 3) the new scenarios provide enhanced information for water users. The reviewers also provided many constructive suggestions that can be incorporated into the current or future DCRs, for example:

- Throughout the report, the figure captions can be improved to be clearer and more comprehensive, thus improving accessibility for readers

Regarding Review of the SWP-DCR, Part 2; Ted Craddock; September 29, 2023

- While sea level rise is not likely to have a major influence on system performance over the timeframe of the current DCR, this report should at the least describe the threshold at which SLR would influence water supply reliability, along with the likelihood of exceeding such a threshold.
- The methods rely entirely on statistically downscaled products, a method that produces very different models compared to dynamically downscaled products. Both methods are acceptable, but it would be informative to evaluate whether the sole use of statistically downscaled solutions materially impacts the results.
- The methods may be underestimating the contribution of natural variability to estimating future system performance for several reasons, including averaging metrics across time and applying perturbations to the historical record rather than generating synthetic sequences of hydrology. While these approaches are justified in the current DCR and responsive to specific requests from users, authors of future DCRs should consider a more complete estimate of system performance risk.

The independent review panel consisted of Dr. Daniel Feldman (Lawrence Berkeley National Laboratory), Dr. Jonathan Herman (UC Davis), and Dr. L. Ruby Leung (Pacific Northwest National Laboratory). These reviewers were selected for their expertise and reputations in hydrologic modeling, climate modeling, water resources planning, and California water operations. More information about the review, including a copy of the charge to the reviewers, is available on the Delta Science Program web page: <https://deltacouncil.ca.gov/delta-science-program/delivery-capacity-report-independent-scientific-review>

If you have any questions about the independent review letters or the review process, please contact Dr. Jill Harris, Senior Environmental Scientist, Delta Science Program at (916) 902-6576 or jill.Harris@deltacouncil.ca.gov.

Sincerely,



Laurel Larsen, Ph.D.
Lead Scientist, Delta Science Program
Delta Stewardship Council

Regarding Review of the SWP-DCR, Part 2; Ted Craddock; September 29, 2023

Enclosures:

- Independent Peer Review of the State Water Project Delivery – Capability Report, Part 2, prepared by Dr. Daniel Feldman
- Independent Peer Review of the State Water Project Delivery – Capability Report, Part 2, prepared by Dr. Jon Herman
- Independent Peer Review of the State Water Project Delivery – Capability Report, Part 2, prepared by Dr. L. Ruby Leung

CC: Andrew Schwarz, Andrew.Schwarz@water.ca.gov

Jill Harris, Jill.Harris@deltacouncil.ca.gov

Rachael Klopfenstein, Rachael.Klopfenstein@deltacouncil.ca.gov