SACRAMENTO - SAN JOAQUIN
DELTA CONSERVANCY
A California State Agency

December 23, 2025

Delta Independent Science Board
Delta Stewardship Council
715 P Street, 15-300
Sacramento, CA 95814

Dear Delta Independent Science Board,

Thank you for the opportunity to comment on the "Science to Inform Management of Subsided Lands in the Sacramento-San Joaquin Delta" draft document dated October 10, 2025. The Delta Conservancy views the document as an opportunity to promote understanding of the subsidence issue, provide an assessment of current and future science needs, and help to stimulate broader support and funding.

We appreciate that the report acknowledges the Delta Conservancy's leadership in this area. The Delta Conservancy has been working to advance subsidence solutions for over a decade and recently formed a Delta Carbon Team to convene scientists and managers working on subsidence and associated carbon emissions. This group is working on implementing recommendations in earlier drafts of this document. Based on our recent work, the recommendations below are intended to strengthen the document and support ongoing solutions. Some of the science cited by the draft document has been updated since the workshop and, where appropriate, updated values are provided in this letter for reference.

The Conservancy's primary comments are described more completely below.

1. The Problem Statement section aptly characterizes the unique challenges subsidence presents but could be strengthened by including key information from the background and workshop summary sections regarding the magnitude of carbon emissions and risks of subsidence, specifically California's water supply, agricultural viability, and Delta communities.
    a. Relevant facts to include are the area of deeply subsided lands in the Delta (approximately 150,000 acres), the magnitude of Delta emissions (~1.2 MMT of CO2/Yr.; Vaughn *et al.* 2024), and the risk of significant long-term interruption to the water supply for 27 million Californians (mentioned on page 25 of the document; Mount and Twiss 2005).
    b. General information about the importance of Delta peatlands to include are that peat soils cover approximately 3% of the land surface globally but store

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approximately 20% of the terrestrial carbon (Limpens *et al.* 2008[1]), and the deeply subsided area in the Delta is less than 2% of California's croplands but accounts for 13% of the total cropland emissions (as referenced on page 23 of the document and reduced by Delta Conservancy staff based on updated total Delta emissions).

2. There is a need for more science to support subsidence work in the Delta. However, the discussion of the ACR protocol and other greenhouse gases, methane and nitrous oxide, could benefit from a more thorough and recent literature review to provide a more balanced overview. The discussion of methane production in the Findings section on page 10 and the ACR protocol discussion on page 20 should recognize the approved, peer reviewed methodology for accounting for methane.
3. The findings section on Delta Landscape Challenges (pages 19 and 20) states tradeoffs are not adequately quantified and modeled across the Delta. While this is true, the document should recognize that the primary factor driving the selection of project locations is willing landowners. The need for funding to continue landowner incentives should be highlighted, as increased adoption of these practices would likewise increase the likelihood of locating projects in priority areas where potential tradeoffs can be studied. This was discussed during panel three and is summarized in that section of this document, but it should be moved up for increased emphasis and clarity.
4. The protocol discussion on page 20 includes the following outdated statement, "While the price of carbon credits has increased over the past decade, the costs of listing credits are substantial and prices for carbon credits are not sufficient to overcome the obstacles to adoption". This statement could result in real harm to programs capitalizing on the building momentum of the carbon market. The Department of Water Resources recently certified 110,000 credits through the approved methodology and has been quoted a price of $30 to $40 per credit. At the low end, this could result in $3.3 million in revenue, with the cost for project validation and verification in the low hundred thousands. This is enticing to Delta farmers on deeply subsided lands and areas too wet to farm. Reaching out to DWR to learn about this recent and exciting development is critical for a complete overview of the state of the carbon market in the Delta. The expectation is that the market will continue to increase and the costs of validation/verification will decrease. The obstacles and costs are still real, but the characterization in the document does not adequately depict the financial incentives.
5. To accurately frame the extent of the problem and the imminent potential for solutions at scale, the Background section should start with a statement recognizing the magnitude of carbon dioxide emissions; the threat subsidence presents to California's water supply, Delta communities, and agriculture; the number of ongoing and successful pilot projects; and the state of the science supporting the work. Additionally, an overarching funding and implementation recommendation would be helpful to clearly

[1] Limpens, J., Berendse, F., Blodau, C., Canadell, J. G., Freeman, C., Holden, J., Roulet, N., Rydin, H., and Schaepman-Strub, G. 2008. Peatlands and the carbon cycle: from local processes to global implications – a synthesis, Biogeosciences, 5, 1475–1491, https://doi.org/10.5194/bg-5-1475-2008

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state that full scale implementation should continue and funding for this implementation should be prioritized. The Conservancy recommends that the appropriate science needs to further support the work would follow this background.

We have maintained throughout our reviews of various drafts of this document that the science needed to guide implementation of solutions to the issue of subsidence is well-documented and the cost of not implementing is high. We appreciate the incorporation of our prior comments expressing concerns about how the document could hinder efforts to realize funding for ongoing efforts and achieving the AB 1757 (C. Garcia 2022) targets. However, the overall tone of the document still creates the impression that scientific uncertainties leave too many questions to continue implementation and may not warrant funding and full-scale implementation. We believe it is possible and appropriate to identify additional science needs to support the ongoing work and simultaneously promote the subsidence work as ready for full-scale implementation.

If you have questions or require additional information, please contact Lauren Damon, Ecosystem Restoration and Climate Adaptation Program Supervisor at 916-634-5308 or lauren.damon@deltaconservancy.ca.gov.

Sincerely,

Campbell Ingram

Campbell Ingram
Executive Officer