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Oct 31, 2014

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Mr. Dustin Jones
Delta Stewardship Council
980 9th Street, Suite 1500
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Subject: State Investments in Delta Levees – Key Issues for Updating Priorities

Dear Mr. Jones:

Contra Costa Water District (CCWD) appreciates the opportunity to comment on the September 2014 document entitled Draft State Investment in Delta Levees: Key Issues for Updating Priorities (Key Issues Paper). CCWD supports the approach to funding levee investments outlined in the Key Issues Paper, “[t]he new approach should guide the ongoing investment of State funds in a way that considers the interconnection of assets protected by levees, the exposure of these assets to different risk factors, the beneficiaries of levee protection and the appropriate cost-share allocation for this protection” (p. 6). CCWD is participating in a beneficiaries pay demonstration project to improve approximately 5 miles of levee on Bacon Island along Old River. Six other municipal water providers, Reclamation District 2028 and PG&E are jointly participating and a grant application to the California Department of Water Resources to fund the Bacon Island Levee Rehabilitation Project has been submitted. We hope that the beneficiary pays principle embraced in this project will serve as a model for future projects and bring a wider group of beneficiaries to invest in the Delta.

The Key Issues Paper does an excellent job of summarizing previous levee investment efforts. It could be improved by recognition of the interrelated nature of habitat restoration, levee armoring and flood risk in the Delta. So far, the levee improvements and habitat restorations are considered in separate plans. However, a recent study has shown that maximum water levels and flooding risks were reduced overall if certain areas of the shoreline were inundated (Holleman and Stacey, 2014¹). The authors concluded that inundation areas such as tidal marsh introduce large energy sinks that reduce the risk of flood in other areas. In other words, those areas protected by armored levees would experience lower water levels and lower flood risk if other areas were allowed to be inundated. Therefore, investments in levees should be considered in conjunction with investments in future habitat restorations.

¹ Rusty C. Holleman and Mark T. Stacey, 2014: Coupling of Sea Level Rise, Tidal Amplification, and Inundation. *J. Phys. Oceanogr.*, 44, 1439–1455. doi: <http://dx.doi.org/10.1175/JPO-D-13-0214.1>

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To reduce flooding risk in the Delta and sustain that reduction of risk in the Delta as sea level rises, the Delta Stewardship Council should consider coordinating recommendations for areas that should be inundated or restored to tidal habitat and those areas that should be protected by levee enhancements, perhaps through a joint effort with the Delta Conservancy. By identifying and prioritizing the State's investment in both habitat restoration and levee armoring, there is the opportunity to leverage the State's investments in ecosystem restoration projects to reduce flood risk and protect the State's investment in the Delta levee system. Furthermore, some types of habitat restoration projects may repel or reduce salinity intrusion into the Delta thereby improving water supply reliability in the face of climate change. Identifying both levee and habitat restoration projects that will achieve multiple benefits such as enhanced ecosystem, reduced flood risk, improved water quality, and improved water supply reliability, will ensure that the limited funding available from the State is put to the best possible use. While we recognize that this charge would be beyond what is required by the legislation, we urge the Council to consider a more comprehensive approach that evaluates the State's investments across a broader spectrum of the Delta Plan policy goals.

If you have any questions, please do not hesitate to call me at (925) 688-8823. CCWD would be happy to meet with you to discuss our comments further.

Sincerely,



Maureen Martin, Ph.D.
Senior Water Resources Specialist

MM/YL:wec

Copy to: Campbell Ingram, Delta Conservancy