

LOCAL AGENCIES OF THE NORTH DELTA

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**SENT VIA EMAIL (DLIScomments@deltacouncil.ca.gov;
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Mr. Randy Fiorini
Chair of the Delta Stewardship Council
Delta Stewardship Council
980 Ninth Street, Suite 1500
Sacramento, CA 95814

RE: Comments on Delta Levees Draft Investment Issue Paper

Dear Chair Fiorini:

These comments on the September 2014 Draft Delta Levees Investment Issue Paper, which is titled State Investments in Delta Levees: Key Issues for Updating Priorities (“Issues Paper”) are submitted on behalf of the Local Agencies of the North Delta (“LAND”). LAND is a coalition comprised of reclamation and water districts (districts) in the northern geographic area of the Delta.¹ As local agencies in the areas impacted by the proposed policy and the significant and unavoidable environmental and other impacts likely to result from the application of these policies, we are presenting comments in the direction of more effective and balanced flood protection to communities and agricultural operations, while not interfering with existing flood control and water provision facilities. We also wish to thank you and your staff for meeting with local agency and other representatives to discuss these matters.

¹ LAND member agencies cover an approximately 110,000 acre area of the Delta; current LAND participants include Reclamation Districts 3, 150, 307, 317, 349, 407, 501, 551, 554, 556, 744, 755, 813, 999, 1002, 2111, 2067 and the Brannan-Andrus Levee Maintenance District. Some of these agencies provide both water delivery and drainage services, while others only provide drainage services. These districts also assist in the maintenance of the levees that provide flood protection to homes and farms.

General Comments

- The linkage between the 15 questions identified for analysis in the Issues Paper² and the four overarching objectives listed in the July 2014 Strategy is not explicit.³ In the future, it would be helpful, in terms of maintaining a consistent analytical approach, to tier off of stated objectives in a linear manner so that the areas that are covered (framed as questions here) match up with the objectives and, where they do not, additional explanation is provided. This issue should be reconciled in the final Issues Paper.
- Similarly, the Delta Independent Science Board (“Delta ISB”) should be engaged in the development of the objectives as well as the analysis of the specific issue items instead of being engaged only in the latter part of that process. In addition, the scope of the Delta ISB appears to be severely constrained to solely “review the project methodology in accordance with the Delta Science Plan’s provisions for independent scientific review.”⁴ This approach is contrary to the overarching requirement of best available science. Scientists should not be limited to solely assess the process/methodological approach, but should also holistically review the development and scientific adequacy of the initial framing of questions through to the conclusions reached.
- The consulting teams’ (Arcadis, Rand, and ESA) goals, objectives, and tasks related to the development of prioritization information should be clarified, and related to the goals and objectives, and included as an attachment.

Detailed Comments on Issues Paper

- Figure 1. Delta Flood Management Facilities (p. 5) is confusingly named and has some apparent errors. Flood management structures are shown, and in the broadest sense the system may be facilities, but the description implies something more formal than exists. The colors are difficult to differentiate and the dotted lines are also too similar. The Yolo Bypass has multiple legal uses, including agriculture.

² Presentation and Discussion of Levee Investment Issue Paper, September 25, 2014 Council Meeting Staff Report, Agenda Item 11 available at http://deltacouncil.ca.gov/sites/default/files/documents/files/Item_11_Delta_Levees_Investment_Strategy%20--%20dkr%20cm_KC.pdf

³ Delta Levee Investment Strategy, July 25, 2014 Council Meeting Staff Report, Agenda Item 12, Attachment 1 available at http://deltacouncil.ca.gov/sites/default/files/documents/files/Item_12_Attach_1_14-0716%20Levee%20one-pager%20Final.pdf

⁴ Presentation and Discussion of Levee Investment Issue Paper, September 25, 2014 Council Meeting Staff Report, Agenda Item 11 available at http://deltacouncil.ca.gov/sites/default/files/documents/files/Item_11_Delta_Levees_Investment_Strategy%20--%20dkr%20cm_KC.pdf

- According to the Issues Paper, “The outcome of the project will include a final report that proposes a Delta levee investment and risk reduction strategy, and that outlines a suite of investments that best addresses State goals and priorities.” (p. 6.) A suite of investments may not be a reasonable outcome for this process, but instead an adaptable set of criteria may better reflect changing conditions in the Delta.
- LAND appreciates the recognition and highlighting of the relevant provisions under Public Resources Code section 29702. (p. 8.) Too often these sections get left out of policy discussions and analyses.
- The Issues Paper states that “Delta levees affect the quality of water on which these users rely because they influence the hydrodynamics of the Delta and the mixing of brackish and fresh water and other constituents.” (p. 9.) This section should recognize that many of the levees are built upon natural features that historically constrained river flows, and that the current levees also bring not just Sacramento River water, but also the San Joaquin, Cosumnes, Mokelumne, Calaveras, and Stanislaus Rivers into the Delta.
- The BDCP is a reasonably foreseeable project that should be considered in the Issues Paper. The BDCP is described in the Delta Plan as the foundation for a more reliable water supply, and analysis of the BDCP’s effect on Delta levees should be address in the Issues Paper. (p. 9.) The economic analysis of the BDCP correctly identifies that the BDCP will have some negative impacts on Delta levees.⁵ Thus, the Issues Paper should consider those impacts and risks, including the increased levee loading and scouring due to new intakes and water transfers. The BDCP Statewide Economic Impact report identifies that the BDCP was unable to place a quantitative economic value to that BDCP-imposed additional risk to the levees. (*Id.* at p. ES-14.) However, the quantification of the benefit of BDCP’s preferred alternative on its water security was identified: “The expected welfare benefits of reduced flooding and seismic risks to urban and agricultural water contractors would be \$0.5 billion under the BDCP relative to the Existing Conveyance Scenario.” (*Id.* at p. 2.2-4.) Thus, according to the BDCP’s analysis, the much decried risk of the multiple failure Delta levee collapse on exported water is a “mere” 0.5 billion.
- According to the Issues Paper, “Local levee-maintaining agencies sometimes suggest that pursuing ecosystem-related goals and objectives redirects funds that would otherwise be available to improve levees to protect lives and property or secure a more reliable water supply.” (p. 10.) While this is certainly true in some circumstances, this statement is taken out of context. Setback levee costs are grossly disproportional to the ecosystem benefit in most Delta situations. Analyzing for this requirement, and its implementation where feasible, takes away money that could

⁵ Draft Bay Delta Conservation Plan, Statewide Economic Impact Report, August 2013, p. ES-7, available at http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Draft_BDCP_Statewide_Economic_Impact_Report_8-5-13.sflb.ashx

yield vastly longer reaches of secure levee according to the Delta Plan's own economic analysis. This is an issue of critical importance to local districts and agriculture in the Delta, and clearly fails to meet the flood protection goals of Public Resources Code section 29702, subdivision (d). (Please see additional discussion of this issue under the Funding Impacts to Local Districts section of this letter.)

- The Issues Paper states that “Four geologic and hydrologic forces threaten the Delta levee system with steadily increasing rates and consequences of levee failure: land subsidence, changing inflows, sea-level rise, and earthquakes.” (p. 11, referring to a 2008 PPIC report.) The cited PPIC report, however, includes unsubstantiated assertions based on broad theoretical assumptions. The basic premise for the investment analysis appears to be based on this assertion of levee risk, yet it is not substantiated. *A levee investment analysis and prioritization scheme must be based on a credible, scientifically based understanding of the failure modes and actual statistical risk.*
- The Issues Paper states that “Other State reports also include recommendations relevant to the Delta’s levees.” Page 15 goes on to cite two non-State reports. This characterization should be revised.
- The Issues Paper also refers to potential ecosystem benefits of setback levees in the Plan. (pp. 23-24.) A detailed analysis of this matter is provided separately below.
- The Issues Paper explains that “It will be important, at a minimum, to retain these protections against State liability in updating levee priorities in the Delta Plan.” (p. 25.) The Delta Plan’s priorities and the proposed Delta Levees Draft Investment Strategy clearly create additional liability for the State. The strategy is a prescription for funding priorities and therefore a direct link to potential damages for areas that do not get protection because of these priorities.
- Sea level rise is also mentioned in the Issues Paper as a driving force for the need to prioritize levee investments. (p. 25.) Additional details regarding this issue are provided separately below.

Funding and Other Impacts to Local Districts of Setback Levees

Though the Issues Paper acknowledges some of the funding limitations of local agencies with respect to levee funding (p. 17), LAND requests that the Council consider in greater detail the potential financial, environmental, and agricultural impacts of its proposed prioritization scheme. The prior analyses of these impacts in the Delta Plan and associated documents have not been coherent, fail to meet best available science, and are incompatible with Public Resources Code section 29702.

For illustration, the Council’s Ecosystem Restoration Policy 4 (ER P4) seeks to expand floodplains and riparian habitats in levee projects: “Levee projects must evaluate and where feasible incorporate alternatives, including the use of setback levees, to increase floodplains and riparian habitats.” Setting back levees in the Delta involves placement of

the new levee at a different location, requiring significant additional volumes of fill soils that must be imported from distant locations, to construct a new levee. The Issues Paper should identify the environmental tradeoffs of excavation and fill projects, and the temporal impacts on loss of habitat at both the borrow and fill locations, which could outweigh perceived biological benefits.

The Issues Paper should better describe the costs associated with the assessments for setback levees required by ER P4, instead of assuming that the costs will be justified. (pp. 9-10.) These enormous costs may interfere with the enhancement of agricultural resources in the Delta. (For map of areas subject to ER P4, see Appendix 8: Setback Levee Evaluation Areas, Figure 8-1, in Appendix B of The Delta Plan.) Implementing ER P4, including evaluation of alternatives, such as setback levees, could cost \$300,000 per mile of levee in estimated additional planning costs alone, with total costs estimated from \$4 million to \$68 million per mile.⁶ Thus, the cost per mile of levee would go from as low as \$4 million per mile to as much as \$68 million per mile, with additional habitat measures raising the cost to \$136 million per mile, a cost increase of 3,400 percent. (*Ibid.*) These costs will ultimately be passed on to the farms of the Delta, which are responsible for payment of assessments to their respective reclamation districts. These costs will make agriculture in the Delta more costly and contradict the important policy goals of the 2009 Delta Reform Act.

Risk Reduction

Risk reduction is a multi-faceted issue. The Issues Paper fails to address this issue in a scientific and substantial manner. LAND recommends a coherent and best available science approach that does not simply recapitulate cursory academic efforts such as those of the PPIC, and the slightly more substantial DWR DRM processes.

According to the Issues Paper, residential flood protection is identified as the highest priority. (p. 4.) We recommend against using an approach similar to that adopted by the Council for future residential development in the Delta Plan. Under Risk Reduction Policy 2: Require Flood Protection for Residential Development in Rural Areas (RR P2), for instance, new residences must be built to withstand 55 inches of sea level rise. The 55 inches of sea level rise at the Golden Gate referenced in RR P2, however, is not based on best available science and should not be the standard for residential flood protection. Moreover, a blanket standard of 55 inches does not reflect the non-uniform elevation changes between the Golden Gate and more interior locations within the Delta.

⁶ Cost Analysis for Proposed Delta Plan Regulations in Support of the Economic and Fiscal Impact Statement, Appendix A, p. A-1 and also Table 3, p. 28, superscript “e,” May 16-17, 2013 Council Meeting, Agenda Item 6c, Attachment 4, available at: http://deltacouncil.ca.gov/sites/default/files/documents/files/Agenda%20item%206c_Attach%204.pdf.

The basis for RR P2 appears to be an interim and outdated recommendation of the Ocean Protection Council that predicted a maximum of 55 inches of sea level rise by 2100.⁷ The Delta ISB, however, has noted the Plan's failure to scientifically assess the standards and the support for the Plan's conclusions as they relate to both sea level rise and the levee standards, identifying the use of two different and potentially conflicting approaches. As a result of this inattention to best available science, RR P2 could result in massive levees being built at great expense to meet an unsupported standard. This mistake should not be replicated with respect to selection of the appropriate level of flood protection for existing residential development.

The charge to the Delta Levees Draft Investment Strategy should be to: *Create a conceptual model for the technical protection requirements for the levees, examine and evaluate the available scientific literature, provide a scientific synthesis of those data, and then develop levee standards using that system.* This must be done according to the best available science criteria: relevance, inclusiveness, objectivity, transparency and openness, timeliness, and peer review. The Strategy should identify the appropriate level of flood protection for existing residences based on best available science and not assume that sea levels will rise 55 inches uniformly throughout the Delta by 2100.

CONCLUSION

LAND and local communities want a positive outcome from the Delta Levees Draft Investment Strategy that reflects the legal requirements of Public Resources Code section 29702, while including successful collaboration, functional restoration and ecological improvements, and minimizing impacts on adjacent flood control structures and agriculture. We look forward to working with the Council to meet these goals.

Very truly yours,

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⁷ The 55 inch assumption appears to be copied from the statutory requirement for the BDCP to plan for a range of possible sea level rise up to 55 inches. (Wat. Code, § 85320, subd. (b)(2)(C).)