



INFORMATION ITEM

Delta Levees Investment Strategy Progress Update

Summary: At today's meeting, Council staff will provide a brief background regarding DLIS and the effort to amend Delta Plan Policy RR P1, an update on ongoing work to incorporate new information into the DLIS Decision Support Tool, and stakeholder engagement efforts to improve data and decision making. Council staff and other Partner Agency members of the DLIS MOU Workgroup will also update the Council on the group's progress over the past year.

BACKGROUND

Delta Reform Act Requirements and Authority

Levees in the Delta and Suisun Marsh reduce flood risk to people, property, water supply, the Delta ecosystem, and important infrastructure of statewide importance. Levee failure can cause catastrophic flooding and can potentially cause injury or loss of life, disrupt water supplies, and possibly damage property, infrastructure, and environmental resources of importance to the entire state. The Delta Reform Act directs the Council, in consultation with the Central Valley Flood Protection Board (Flood Board) to recommend priorities to reduce risks to people, property, and State interests in the Delta by promoting effective emergency preparedness, appropriate land uses, and strategic levee investments (Water Code section 85305(a)); and to recommend priorities for State investment in levee operation, maintenance, and improvements in the Delta, including both project levees (which are a part of the State Plan of Flood Control), and non-project levees (which are not a part of the State Plan of Flood Control) (Water Code section 85306).

Delta Levee Investment Strategy Development Process

When the Council adopted the Delta Plan in 2013, it included an interim policy (Risk Reduction Policy 1 or RR P1) to temporarily address the requirements of Water Code section 85306. In 2014, the Council began developing a revised RR P1, often called the Delta Levee Investment Strategy (DLIS). From 2014-2017, Council staff collected and applied existing data and information from numerous sources to evaluate risks to State interests in the Delta, including: 1) risk to public safety, property, and infrastructure; 2) water supply reliability; 3) the Delta ecosystem; and 4) the unique attributes of the Delta as an evolving place. As part of the DLIS process, Council staff, supported by a consultant, developed a DLIS-Decision

Agenda Item: 7

Meeting Date: November 19, 2020

Page 2

Support Tool (DST), a computerized tool designed to explore flood risks to state interests on Delta islands protected by levees. The DLIS-DST combines risk analysis, economics, engineering, and decision-making techniques to assemble a comprehensive investment strategy for Delta levees. The DLIS-DST was used to create risk maps that helped inform Council decision-making for an update to Policy RR P1, and was approved by the Council as part of the 2018 Delta Plan Amendments. Council staff initiated the rulemaking process and published a Notice of Proposed Rulemaking to amend Sections 5001 and 5012 (RR P1) in the California Regulatory Notice Register on July 5, 2019.

Using the DLIS-DST, the Council established a three-tiered priority list– **Very-High Priority, High Priority, and Other Priority** – for State investments in Delta levee improvements. The priorities provide an ordering of the islands or tracts (polders) based on each polder's flood risk and the State interests that the levees protect. The Council initiated rulemaking based on this work in 2019.

In June of 2019, the California Department of Water Resources (DWR) published new Light Detecting and Ranging (or LiDAR) 2017 elevation data for the Delta and Suisun Marsh, providing updated information about the height of the levees and polder floors. This updated levee data had the potential to change our understanding of risk in the Delta. To allow staff to evaluate the LiDAR information and determine whether it changes the polder risk assessment and priorities identified in the 2018 Delta Plan Amendments, the Council issued a Notice of Decision Not to Proceed with the proposed regulation on March 26, 2020. As a result, the Delta Plan retains the interim RR P1 priorities established in 2013.

Status of DLIS Risk Analysis

The original foundation of DLIS was based on the 2007 elevation data published by DWR in 2012. In April 2020, Council staff began evaluating the new LiDAR data, coordinating with State and local agencies to verify and revise the analysis. In October 2020, staff completed preliminary efforts to use the 2017 elevation data to update information that informs the DLIS-DST. This included analyzing changes to Delta levee crests and interior polder elevations, and updating water surface elevations using data developed for the Council's Delta Adapts project.

On October 27 and 29, Council staff held two outreach sessions with reclamation district representatives and other stakeholders to review the data to ensure the use of the best available information for each island and tract. Feedback from the reclamation districts is still being received.

Agenda Item: 7

Meeting Date: November 19, 2020

Page 3

Council staff will evaluate and incorporate data adjustments obtained through consultation with reclamation districts and finalize the Delta levee analysis. The updated Delta levee analysis will then be incorporated into the DLIS-DST to evaluate risks to State interests in the Delta. This information will be used to identify any changes to the 2018 DLIS priority list based on the new information. The results of this analysis will be presented to the Council for deliberation in early 2021.

DLIS Memorandum of Understanding Update

To carry out the charge to recommend priorities for State investments in Delta levees set forth in Water Code section 85306, and in consideration of the future implementation of DLIS, the Council, DWR, and the Flood Board (Partner Agencies) signed a Memorandum of Understanding (MOU) in September 2017 recognizing the shared interests and overlapping jurisdictions of the Partner Agencies on Delta levee investments, and directing the Partner Agencies to work together to implement the DLIS (see Attachment 1). To accomplish this, an MOU Workgroup was established, comprised of subject matter experts and policy advisors from each of the Partner Agencies. The MOU Workgroup has been meeting biweekly since July 2018.

THE MOU WORKGROUP HAS FOCUSED ON THE FOLLOWING ITEMS OVER THE PAST YEAR.

Co-management of the DLIS Decision Support Tool

The MOU Workgroup has developed a consensus-driven approach to co-manage, maintain, and refine the DLIS-DST to provide Agency Partners with data and analyses that support each agency's work. Given the unique responsibilities of each Workgroup agency over Delta flood management, shared management of the DLIS-DST by DWR and the Council, with input from the Flood Board, ensures that the data guiding Delta levee investments remains accurate.

Updating Delta Plan Policy RR P1

The MOU Workgroup has discussed several potential regulatory concepts that would comprise the next update to Delta Plan Policy RR P1. It should be noted that such discussions and development of concepts have been done using the 2018 Policy RR P1 language as a starting point. Updates to the 2018 language may be appropriate based on several factors, including: the 2017 LiDAR elevation data previously referenced in this report, as well as councilmember feedback received in

Agenda Item: 7

Meeting Date: November 19, 2020

Page 4

response to DWR's November 2019 Report¹ to the Council on Delta levee investments.

Prior to reinitiating a new rulemaking process under the Administrative Procedure Act, in the coming months, Council staff plans to solicit early feedback on proposed regulatory language from stakeholders.

Communication and Transparency

A primary objective of DLIS is to improve communication and transparency surrounding how the State funds Delta levee improvements and the benefits associated with levee investments. To that end, the Partner Agencies are working collaboratively to engage stakeholders at a number of public forums, including the Delta Levees Habitat Advisory Committee, the Flood Board's Coordinating Committee, and recent Delta levee condition data stakeholder discussions hosted by Council staff described above.

Collaborative Efforts

In addition to the efforts highlighted above, the MOU Workgroup has been exploring additional areas of mutual interest to advance the overall state goal of reducing flood risk in the Delta, including the following:

Funding for Levee Maintenance and Improvements

California began providing funds to maintain the Delta levee system in 1973. Since that time, nearly \$1 billion of state funds have been invested in Delta levee maintenance and improvement activities. A 2014 issue paper prepared by Council staff estimated the cost of needed improvements at that time to be as high as \$4 billion (not including maintenance costs). Considering inflation and financial demands to maintain the more than 1,100 miles of levees that encompass the Delta and Suisun Marsh, resources needed to support both improvements and maintenance are greater than these amounts, and will increase as climate change further stresses levee infrastructure.

As a result, assessing future funding mechanisms remains a topic of interest for the MOU Workgroup. To date, the MOU Workgroup has explored a range of options, including:

¹ <https://deltacouncil.ca.gov/pdf/council-meeting/meeting-materials/2019-11-21-item-9-attachment-1-dwr-annual-delta-funding-report-fy19.pdf>

Agenda Item: 7

Meeting Date: November 19, 2020

Page 5

- Reauthorization of the Sacramento-San Joaquin Drainage District, as recommended in the 2017 Central Valley Flood Protection Plan Update; and
- Reengaging with the U.S. Army Corps of Engineers regarding the federal government's interest in Delta levees.

Climate Change Impacts on Delta Flood Risk Management

Climate change presents a risk for several aspects of the Delta. In addition to impacting the state's water supply, economy, and biodiversity, climate change has the potential to increase flood risks throughout the Delta. To increase the region's resilience under these dynamic conditions, investments in Delta levees must also consider this reality.

With this in mind, the MOU Workgroup is closely monitoring the ongoing studies that are part of the Council's *Delta Adapts* study to ensure that DLIS continues to rely on the best available science, while promoting investments that reduce flood risk in the near-term and will remain durable in the face of climate change.

TODAY'S MEETING

At today's meeting, Council staff will provide a brief background regarding DLIS and Delta Plan Policy RR P1, an update on ongoing work to incorporate new information into the DLIS-DST, and stakeholder engagement efforts to improve data and decision making. Council staff and other Partner Agency members of the DLIS MOU Workgroup will also update the Council on the group's activities over the past year.

QUESTIONS TO CONSIDER

1. What should the Council and Council staff's role be in using the updated DLIS and RR P1 to guide or advocate for funding of additional levee improvements, given the uncertain future of non-project levee funding?
2. The *Delta Adapts* Vulnerability Assessment study will provide additional information about future flood exposure in the Delta. How might the current DLIS Update incorporate and consider this information?
3. Staff has received comments from stakeholders that the DLIS does not align with current funding streams. Should Council staff be looking at and considering those distinctions when presenting the updated DLIS information? This was not explicitly a consideration in the previous DLIS.

Agenda Item: 7

Meeting Date: November 19, 2020

Page 6

FISCAL INFORMATION

Not applicable.

LIST OF ATTACHMENTS

Attachment 1: Delta Levee Investment Strategy Memorandum of Understanding

CONTACT

Andrew Schwarz, P.E.

Supervising Engineer

Planning Division

Andrew.Schwarz@deltacouncil.ca.gov