



## **INFORMATION ITEM**

### Delta Adapts Draft Adaptation Plan Overview and Discussion

#### Summary

The Council will host a hybrid meeting to preview an overview of the Delta Adapts Draft Adaptation Plan (Plan) to discuss climate adaptation strategies for the Sacramento-San Joaquin Delta and Suisun Marsh (Delta), including high-priority actions, implementing lead and partner entities and ways to finance adaptation. Staff will describe the outreach approach undertaken to date, and summarize proposed adaptation strategies, funding needs, financing mechanisms, and governance recommendations. Representatives from numerous implementing agencies and organizations will present their work alongside Council staff presentations of the draft adaptation strategies in each of the four focus areas: flood risk reduction, ecosystem, agriculture, and water supply reliability.

The discussion aims to inform Councilmembers and catalyze adaptation partners, and the public around the contents of the draft Plan. Specifically, staff is seeking engagement regarding the lead and partner entities identified for each adaptation strategy, a set of short-term priority actions, and additional ideas. Ideas generated during the discussion will be considered along with other comments on the Draft Adaptation Plan – which will be released in 2024 for a 60-day public comment period – as the Final Adaptation Plan is prepared.

#### Background

The Delta Reform Act definition of “restoration” includes consideration of “the future impact of climate change and sea level rise” (Wat. Code, § 85066) and identifies the year 2100 as the target for the restoration of large areas of interconnected habitats within the Delta and its watershed. (Wat. Code, § 85302 subd. (1).) The Delta Reform Act also notes that the Delta Plan may address “the effects of climate change and sea level rise on the three state highways that cross the Delta” in consultation with the Department of Transportation. (Wat. Code, §

85307 subd. (c.) Executive Order B-30-15, signed by former Governor Brown in April 2015, requires State agencies to incorporate climate change into planning and investment decisions. State agencies are also required to prioritize natural infrastructure, actions that both build climate preparedness and reduce greenhouse gas emissions, and to protect California's most vulnerable populations. (Governor's Exec. Order No. B-30-15 (April 29, 2015).)

Climate change is already altering the physical environment of the Delta. Moving forward, climate change in the Delta will continue to adversely affect human health and safety, lead to economic disruptions, diminish water supply, degrade water quality, shift ecosystem function and habitat qualities, and increase the challenges of providing basic services. Many of these impacts will disproportionately affect disadvantaged communities.

Delta Adapts provides a framework to guide the Council and other agencies and organizations in the Delta to address the region's climate adaptation needs. It is the first comprehensive, regional approach to climate resiliency for the Delta that commits to collaboration across federal, State, local, and regional levels. Delta Adapts consists of two phases: 1) a **Vulnerability Assessment (VA)** to improve understanding of regional vulnerabilities due to climate change to protect the vital resources the Delta provides to California and beyond, with a focus on State interests and investments, followed by 2) an **Adaptation Plan** detailing strategies and actions to adapt and respond to those vulnerabilities. The Delta Adapts VA was approved by the Council on June 24, 2021, and the public draft of the Adaptation Plan will be released in 2024.

## Adaptation Process

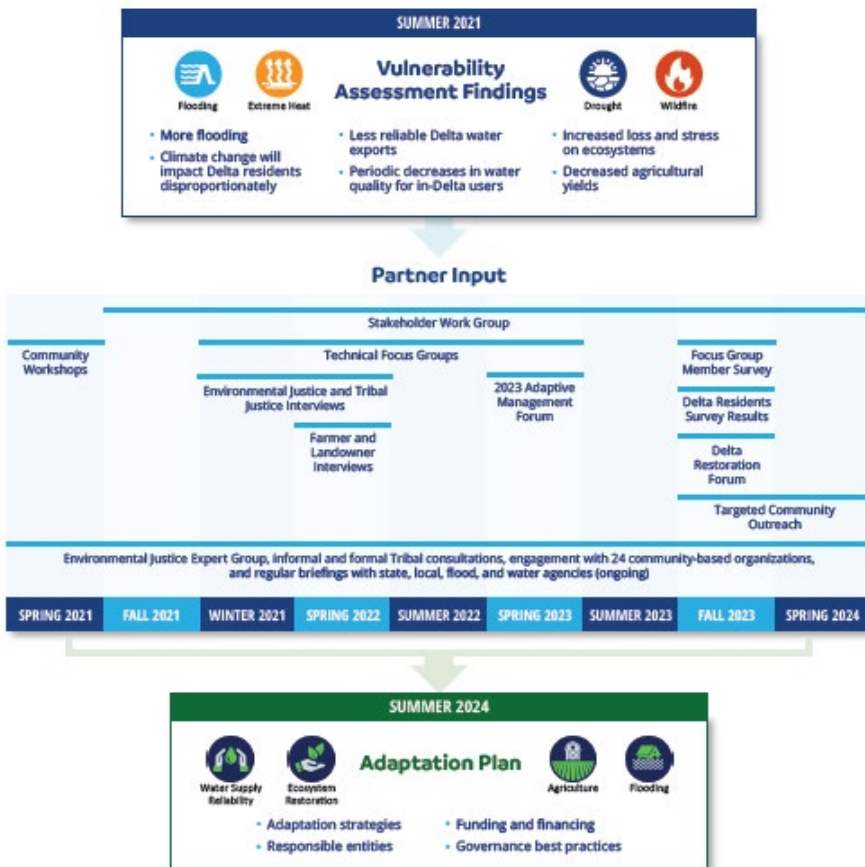
Council staff began the adaptation phase of Delta Adapts in Fall 2021. Throughout this process, staff has engaged with a diverse array of individuals, organizations, and agencies to inform the planning process. This outreach and engagement has included:

- Convening a cross-sector Stakeholder Workgroup (SWG) and four technical focus groups associated with ecosystems, agriculture, water supply, and flood risk reduction;
- Meeting with and interviewing farmers and landowners across the Delta and Suisun Marsh;

- Meeting with the Council’s Environmental Justice Expert Group for guidance on incorporating equity into adaptation;
- Meeting with more than 24 community-based organizations;
- Conducting additional targeted outreach and meetings with State and local agencies and other Delta interests; and
- Applying shared concerns and lessons learned from the 2023 Delta Residents Survey and several Tribal consultations.

Through these engagements, Council staff have identified climate impacts that are of most concern to these groups and what they desire as an outcome of adaptation.

**Figure 1** shows the adaptation planning process and timeline.



*Figure 1: Adaptation Process and Timeline*

## Summary of Adaptation Strategies

Council staff developed adaptation strategies for state, Tribal, and local decisionmakers and land managers to reduce climate vulnerabilities for Delta communities, infrastructure, and ecosystems. The strategies are informed by the “One Delta, One Science” approach to strengthen coordination between scientists, agencies, and affected parties, and make decisions according to the best available science. Adaptation strategies are categorized in four focus areas: flood risk reduction, ecosystems, agriculture, and water supply reliability. For each strategy, short-term priority actions are identified.

- **Flood risk reduction strategies:** Reduce flood risk through a series of actions focused on in-Delta levee improvements and land use changes, implementation of nature-based solutions to support flood mitigation and ecosystem services, improved emergency preparedness and communication, and upstream management of reservoirs to control flood flows into the Delta. Investing in adaptive levee improvements now is a cost-effective adaptation approach that brings several co-benefits.
- **Ecosystem strategies:** Strengthen the adaptability of Delta ecosystems by restoring and connecting habitats to meet Delta Plan goals, implementing functional flows, halting or reversing land subsidence, and protecting native species and improving biodiversity. Co-benefits include reducing flood risk, improving water quality, increasing public and Tribal access, and sequestering greenhouse gases.
- **Agriculture strategies:** The holistic approach to agricultural resilience identifies strategies to support more efficient agricultural water use, building healthier soils, and supporting conversions to climate-resilient crops. Co-benefits include increasing food security, strengthening the local economy, halting or reversing land subsidence, reducing greenhouse gas emissions, and providing habitat for a diverse range of species.
- **Water supply reliability strategies:** The water supply strategy re-doubles the Council’s reduced reliance efforts by working with partners to increase water conservation; expand surface and groundwater storage and regional water supplies; modernize Delta conveyance systems; improve upstream reservoir operations; and update water quality standards to consider the impacts of climate change.

## Equity

Equity considerations are embedded throughout the adaptation strategies and implementation actions. Each strategy supports a range of equity outcomes, including improved health, economic stability and prosperity, physical and emotional wellbeing, and social justice for vulnerable communities, including neighborhoods in Antioch, Pittsburg, and Stockton. Here, residents are more likely to be at risk of extreme heat, flooding, and other climate impacts.

## Governance

Increasing the representation of those that have been historically left out of government procedures and decision-making (*representational justice*) is also integrated within proposed governance recommendations. Climate change governance describes the process by which organizations plan, fund, implement, and manage climate adaptation, within existing and evolving legal frameworks.

These recommendations aim to ensure that public processes and decision-making bodies include the communities they serve, and that the communities most impacted by decision-making can meaningfully participate in the process (*procedural equity*). Recommendations also propose ways to work through the Delta's historically fragmented governance structure through improved coordination and collaboration, engagement and education, adaptive management, and incorporation of traditional knowledge and other ways of knowing.

## Funding needs and mechanisms

A critical component of planning for adaptation is understanding how much adaptation will cost and identifying feasible ways to fund it. This begins by recognizing that, fundamentally, it costs more to recover assets and communities impacted by climate hazards than it does to address adaptation needs now. Additionally, finding ways to fund adaptation in the Delta requires an understanding of how levees and ecosystem restoration have been funded in the Delta in the past.

The Adaptation Plan evaluates potential costs to implement needed levee improvements and ecosystem restoration projects throughout the Delta to address climate vulnerabilities through 2050. Levee improvements focus on crest raising to accommodate projected water level increases in the Delta due to sea level rise and

changes in watershed hydrology. Ecosystem restoration costs were estimated considering planning, design, permitting, and construction costs and a range of restored acreage to meet Delta Plan targets (60,000 to 80,000 restored acres).

The Adaptation Plan estimates the amount of available levee improvement funding from both existing sources (e.g., State, federal, and local appropriations), and new funding mechanisms (e.g., potential parcel taxes and water conveyance leasing fees). Potential restoration funding sources include bond measures and State and federal grants. The funding need is substantial, and there is a critical need to identify sustainable funding sources, prioritize investments, and identify additional revenues to fund the adaptation strategies.

#### Next Steps

Council staff are finalizing the draft Adaptation Plan for a 60-day public comment period. During this period, staff will present the draft Adaptation Plan throughout the Delta, with a focus on reaching the most socially vulnerable communities in the Delta. Comments received in the Council meeting, at various outreach events and meetings, and written comments received will be incorporated into the final Plan to be completed in Summer 2024.

#### Fiscal Information

Not applicable.

#### List of Attachments

Attachment 1- Delta Adapts Information Sheet

#### Contact

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