

**Delta Protection Commission Meeting
January 21, 2021**

AGENDA ITEM 9: Delta Stewardship Council activities and Delta Adapts

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Requested Action: **Receive report on Delta Stewardship Council activities and Delta Adapts**

Type of Action: Information with recommendation for future action

Background: The Delta Stewardship Council (Council) “Delta Adapts: Creating a Climate Resilient Future (Delta Adapts)” study is the first-ever climate change vulnerability assessment and adaptation strategy conducted for the Delta and Suisun Marsh. Initiated in 2017, it is informed by the Delta Reform Act (DRA) requirements for consideration of “the future impact of climate change and sea level rise” in restoration planning for the Sacramento-San Joaquin Delta and Suisun Marsh (Delta) (Water Code section 85066) and identifies a restoration timeline horizon of the year 2100 (Water Code section 85302). Executive Order B-30-15, signed by Governor Brown in April 2015, requires that State agencies incorporate climate change into planning and investment decisions and requires State agencies to prioritize natural infrastructure and actions for climate preparedness and protection of the most vulnerable populations.

Delta Adapts will help the Council assess specific climate risks and vulnerabilities in the Delta and, in coordination with a diverse group of stakeholders, develop adaptation strategies to address those vulnerabilities. Delta Adapts consists of two phases:

- 1) A vulnerability assessment to improve understanding of regional vulnerabilities due to climate change in order to protect the vital resources the Delta provides to California and beyond with a focus on State interests and investments. The draft vulnerability assessment will be released by the Council on January 15, 2021 for a 30-day comment period.
- 2) An adaptation strategy detailing strategies and tools that State, regional, and local governments can use to help communities, infrastructure, and ecosystems thrive in the face of climate change.

The Council’s presentation will cover a wide span of possible impacts that could occur in the Delta and Suisun Marsh. The following sampling of findings from the vulnerability assessment

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indicate various ways climate change is likely to negatively impact the Delta, all based on an assumption of no improvements to Delta levees:

- Approximately 66,000 residents will be exposed to flooding from levee overtopping by mid-century, and 133,000 residents will be exposed by end-of-century.
- Sea level rise and changes in hydrologic patterns in Delta watersheds will increase peak water levels and flooding in the Delta in the coming decades, exposing up to 250 square miles of land to flooding by mid-century and up to 600 square miles of land by end-of-century.
- The communities most vulnerable to extreme heat are in Stockton and Tracy. These communities have high urban heat island effects and high concentrations of people who are more socially vulnerable to heat impacts. By mid-century, these communities are projected to experience approximately 25 extreme heat days per year—compared to just five extreme heat days currently.
- Overall crop yields in the Delta are expected to decrease and more extreme heat and fewer tule fog days will decrease fruit quality.
- Flooding is expected for the vulnerable sections of Delta roads and railways, making travel and transport of goods more difficult, and even the Port of Stockton could experience impacts.

The Delta’s levees, ecosystems, water supplies, and communities will be challenged by these changes. As the world continues to experience the impacts of climate change, most planners are turning their focus onto regional adaptation.

Adaptation Strategy Planning: The second phase of Delta Adapts will begin in 2021. Council staff will work with stakeholders on the development of a regional adaptation strategy identifying a range of policy and management actions that could be taken, both by the Council and others, that would improve regional resilience to climate change. This “toolkit” of adaptation strategies will identify thresholds for vulnerability by region and interim adaptation targets between 2020-2100 (planning horizons may include 2030, 2050, and 2100) to enable achievement of the Council’s 2019 resilience goals.

The Council’s adaptation strategies are expected to directly impact Delta land use policies, legacy communities, investment decisions, research priorities, and flood recovery efforts.

Commission staff suggest the Commission’s adoption of “Delta Adapts guiding principles” would assist our staff’s participation in the Council’s Delta Adapts process. Based on general direction from the Land Use and Resource Management Plan (LURMP) policies, guiding principles could include the following direction:

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- a) The unique Delta values, in addition to critically important regional infrastructure and ecosystem values, are dependent on effective emergency preparedness, appropriate land uses, and investments in flood protection, including continued maintenance of and improvements to Delta levees.
- b) Ensure that local and regional investment strategies to address flooding and sea level rise are grounded in local needs, conditions and plans, and phased to allow for uncertainty, flexibility, and iteration.
- c) Improve and enhance the resilience of the Delta transportation network against sea level rise through structural investments.
- d) Ensure that socially vulnerable communities have additional resources and support.
- e) Delta adaptation strategies should focus first on protecting life and property, and then ecosystem values.

Prior to the next Commission meeting, Commission staff will develop a set of principles for Commission consideration. This can guide future Commission comments on Delta Adapts.

Recommended Action: Receive presentation and consider directing Executive Director to develop Delta Adapts guiding principles for consideration by the Commission at its March 18, 2021 meeting.

Relationship to Vision 2030 (Commission strategic plan):

Water

W.2 Increase Commission coordination to advocate for legislation and funding that protect Delta fresh water resources.

Regional Economy

E.2 Identify the regional infrastructure needs and opportunities to maximize Delta regional benefits.

2.2 Advocate for necessary infrastructure improvements with State and local government and other partners

E.4 Identify and address environmental factors that negatively impact the economic sustainability of the Delta.

Education and Outreach (Strategic Theme)

O.1 Ensure consistent, proactive communication between and among Delta interests and decision makers.

1.3 Foster two-way communication throughout the Delta.

1.3.3 Foster communication between Delta interests for improved, coordinated action.