



Delta Levees Investment Strategy

Working with other agencies and the public, the Delta Stewardship Council (Council) is developing a Delta Levees Investment Strategy to update priorities for State investments in the Delta levee system to reduce the likelihood and consequences of levee failures.

Why

Levees in the Sacramento-San Joaquin Delta (Delta) help protect people, property, natural resources, and numerous infrastructure systems of statewide importance. Catastrophic levee failure (such as a levee breach) would cause devastating flooding and disruption of the assets that the levees protect. Flooding could cause injury to people or loss of life. It could also damage property, water supply, infrastructure (like highways, energy utilities, and major water supply systems), and the environment.

Levee maintenance and improvement over the past 30 years has helped strengthen the levees. However, the State does not have a long-term strategy to guide future investments of its limited funding. The 2009 Delta Reform Act directed the Council to lead the effort to develop levee investment priorities that achieve an optimal reduction of risk and further the coequal goals of improving water supply reliability and restoring the Delta ecosystem.¹

How

The Delta Levees Investment Strategy will be developed using a comprehensive methodology that considers the assets protected by Delta levees, threats to Delta levees, multiple beneficiaries of Delta levee investments, and both structural and non-structural approaches for reducing risk. The work builds on the results of previous Delta levee planning efforts.

A computer-based decision support tool will be developed. This tool will take into account a wide array of economic and non-economic factors to consider and evaluate risk-reduction options and trade-offs. After a viable set of options have been assembled for each Delta island, the project team will use the tool to analyze those options. Many different combinations of conditions, variables, uncertainties, and preferences will be tested to arrive at an optimized suite of investments. This tool can be used to analyze future scenarios as conditions or assumptions change over time. The modeling efforts will be performed in collaboration with interested stakeholders and the public.

Outcomes

The outcome of the project will be a final report that proposes a Delta levee investment and risk-reduction strategy. This strategy will outline a suite of investments that best address State goals and priorities, including a tiered ranking of investments on Delta islands and tracts and an allocation of costs based on those who benefit. These priorities, upon adoption by the Council consistent with the California Environmental Quality Act and the California Administrative Procedures Act, will replace the interim Delta Plan policy and implementing regulation (see Delta Plan Risk Reduction Policy RR P1; 2 CCR 5012). The proposed strategy will be submitted to the California Legislature to help guide future decisions about funding.

¹ Water Code Section 85305. (a) The Delta Plan shall attempt 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 85306. The Council, in consultation with the Central Valley Flood Protection Board, shall recommend in the Delta Plan priorities for state investments in levee operation, maintenance, and improvements in the Delta, including both levees that are a part of the State Plan of Flood Control and nonproject levees.



Coordination

The work will be performed in close coordination with—and using best available information from—State agency partners, including the California Department of Water Resources, the Delta Protection Commission, and the Central Valley Flood Protection Board, as well as local and regional flood management and emergency response planning agencies.

Key Questions for the Delta Levees Investment Strategy

1	WHAT ARE THE COUNCIL'S GOALS FOR THE DELTA LEVEES INVESTMENT STRATEGY? <ul style="list-style-type: none">• Comply with 2009 Delta Reform Act directive to reduce Delta risks to people, property, and State interests• Update priorities for State investments in levee operations, maintenance, and improvements in the Delta• Further advance the coequal goals of improving water supply reliability and restoring the Delta ecosystem
2	WHAT ARE THE THREATS TO THE DELTA AND TO STATE INTERESTS AND GOALS? <ul style="list-style-type: none">• Flood damage to people, property, farms, businesses, infrastructure, and recreation• Interruptions of water supply and impacts to water quality• Damage to the health of the Delta ecosystem• Future uncertainties (extreme weather, sea-level rise, etc.)
3	WHAT INVESTMENTS COULD REDUCE THIS RISK? <ul style="list-style-type: none">• What is the appropriate level of protection?• What are the potential investments, such as levee upgrades; new levee setbacks, bypasses, and floodways; and improved emergency response preparation?• Who benefits?
4	HOW SHOULD THESE INVESTMENTS BE PRIORITIZED AND ASSEMBLED INTO A STRATEGY? <ul style="list-style-type: none">• Which investments are most cost effective at reducing risk?• How do investments further the coequal goals?• What sets of investments best account for State and stakeholder goals?• How do funding and other constraints shape an investment strategy?
5	WHAT ARE THE IMPLICATIONS OF A LEVEES INVESTMENT STRATEGY? <ul style="list-style-type: none">• How much will it cost, and how will those costs be allocated to beneficiaries?• What are the environmental effects?• What are the residual risks?
6	WHAT ARE THE EXPECTED PROJECT OUTCOMES? <ul style="list-style-type: none">• A Delta levees investment and risk-reduction report will be submitted to the California Legislature• Revisions to the interim Delta Plan risk-reduction regulations and recommendations• A computer-based, decision-support tool that readily updates investment priorities based on new information