



DELTA STEWARDSHIP COUNCIL

Delta Plan

FIVE-YEAR REVIEW HIGHLIGHTS

OCTOBER 2019

Introduction

Writing a new chapter in the decades-long effort to coordinate the overlapping agencies and authorities responsible for managing the Sacramento-San Joaquin Delta (Delta), the Legislature in 2009 established the Delta Stewardship Council (Council) to create a comprehensive, long-term, legally enforceable plan to guide the management of the Delta. It delegated to the Council regulatory and appellate authority to oversee implementation of this plan through coordination and oversight of state and local agencies proposing to fund, carry out, and approve certain actions that take place in whole or in part within the Delta and Suisun Marsh, referred to as covered actions.



Foundational to the Delta Plan are the state's coequal goals for the Delta: a more reliable statewide water supply, and protection and restoration of the Delta ecosystem while enhancing the unique cultural, recreational, and agricultural values of the Delta as an evolving place. The Delta Plan is based on the best available scientific information, includes measurable targets associated with achieving the Plan's objectives, and provides a science-based, transparent, and formal adaptive management strategy for ongoing ecosystem restoration and resource management decision-making.

First adopted in 2013, the Council's Delta Plan includes regulatory policies and non-binding recommendations to address current and expected challenges related to the coequal goals, Delta as a place, reducing flood risk, and improving water quality, collectively referred to as the Delta Plan's core elements. Real progress has been made since the Council adopted and began implementing the Delta Plan, however much remains to be done.

The Delta Reform Act requires the Council to review the Delta Plan at least once every five years and make revisions as appropriate. The Council's Five-Year Review represents an important component of the Delta Plan's three-phase adaptive management framework: Plan, Do, and Evaluate and Respond. This approach "ensures that the Delta Plan is updated as often as necessary to incorporate new information or to modify policies and recommendations to ensure achievement of the coequal goals."

Initiated in 2018, the Five-Year Review of the Delta Plan **summarizes the accomplishments** of the Council through its early implementation of the Delta Plan, **presents findings** from the Five-Year Review process, and **recommends priority actions** for the next five years to strengthen the Plan and its implementation.

To complete this Five-Year Review, Council staff comprehensively reviewed the Delta Plan, assessed the status of its implementation activities, and gathered agency and stakeholder evaluations of the Plan. The Council conducted these activities between December 2018 and April 2019:



COMPREHENSIVE REVIEW OF THE DELTA PLAN, STAFF INTERVIEWS, AND WORKSHOPS



COVERED ACTIONS REVIEW



PERFORMANCE MEASURES REVIEW



EXTERNAL EVALUATION OF THE PLAN



DELTA PLAN INTERAGENCY IMPLEMENTATION COMMITTEE SURVEYS AND INTERVIEWS



STATE AGENCY CHAPTER REVIEWS

“Managing in the context of the Delta’s dynamic political, regulatory, and environmental landscape is challenging and requires strong leadership and adaptive management. The last six years have shown that the state’s Delta Plan is providing measurable value and clear direction for agencies engaged in stewarding the Delta’s diverse resources. This new chapter in Delta governance is yielding early, measurable success and must be built upon to achieve the bold goals established by the Legislature.”

— JESSICA PEARSON
Executive Officer



Accomplishments

Laying the Foundation for Successful Implementation of the Delta Plan

Since adopting the Delta Plan, the Council has invested significant resources toward creating a sound framework for implementing this landmark management plan, including:

- Implementing a new regulatory authority in the Delta through covered actions
- Amending and updating the Delta Plan
- Coordinating implementation of the Delta Plan across federal, state, and local agencies
- Supporting the Delta Plan with best available science for long-term management
- Advancing funding in the Delta

These accomplishments set the stage for future progress toward implementing the Delta Plan and achieving the coequal goals, reinforcing the leadership role of the Council in charting the course ahead.

Implementing a New Regulatory Authority in the Delta through Covered Actions

During the first six years of implementing the Delta Plan, the Council applied its regulatory authority in reviewing 20 certifications of consistency, and 10 appeals related to two projects. The Council also submitted more than 100 formal comment letters to external agencies with the intention of ensuring that project proponents were aware of the Delta Plan's requirements and how they may apply to their projects.

To assist agencies with projects that may qualify as covered actions, the Council employed an early consultation process by meeting with project proponents to discuss relevant Delta Plan policies and answer questions about certification of consistency requirements.

The Council's covered action consistency review process provides an avenue for the Council and the public to review and comment on the consistency of proposed state and local projects with the Delta Plan's regulations. This self-certification process is a critical tool for successful Plan implementation by encouraging project consistency with Delta Plan policies. It also increases coordination of activities across state and local agencies and provides a forum for stakeholders and the public to share ideas and concerns. As a result, this process continues to maximize the benefits of projects in the Delta and strengthens overall Delta Plan implementation.

Amending and Updating the Delta Plan

In accordance with commitments made in the original Delta Plan and in response to other changes, the Council adopted five amendments to the Delta Plan from 2013 to 2018:

- Performance Measures
- Single-Year Water Transfers
- Conveyance, Storage, and Operations
- Delta Levees Investment Strategy (DLIS)
- Output and Outcome Performance Measures

During this period, the Council also worked diligently to begin updating the policies and recommendations in Delta Plan Chapter 4, Protect, Restore, and Enhance the Delta Ecosystem. Currently under development by the Council, this amendment will consider past and future effects of climate change and sea level rise, incorporate lessons learned about adaptive management of the Delta ecosystem, identify best practices for restoration projects, and address institutional changes to improve implementation so that species can begin to benefit from these projects as soon as possible. This effort will help maximize the quality and sustainability of ecosystem restoration projects while recognizing the effects of climate change on the Delta landscape.

Coordinating Implementation of the Delta Plan across Federal and State Agencies

While the Council is the lead agency tasked with overseeing the overall implementation of the Delta Plan, achieving the coequal goals is a joint undertaking by many federal, state, and local agencies with common goals and shared beneficial outcomes statewide.

One of the primary avenues to coordinate activities to advance the coequal goals is through the Delta Plan Interagency Implementation Committee (DPIIC). Envisioned in the Delta Reform Act and overseen by the Council, DPIIC members are leaders from 18 federal and state agencies that are vital to successful Delta Plan implementation. Each implementing member agency is represented by the highest level of authority to speak on behalf of the agency at a policy and management level.

DPIIC's greatest strength is its ability to drive Delta Plan implementation strategies and actions across agencies, shifting agency organization and priorities accordingly. In its first five years, one area of enhanced coordination has been science, where DPIIC continues to align Delta-relevant science funding. In 2016, DPIIC and the U.S. Geological Survey hosted a Science Enterprise Workshop to share information about how collaborative science is funded, managed, and communicated in several high-profile and complex ecosystems.

DPIIC has begun to establish stronger connections and generate dialogue between the San Francisco Bay and the Delta on science, funding, and multiagency advancement of ecosystem restoration projects. It represents a shift in Delta agency collaboration in the right direction. As leaders of their respective agencies, DPIIC members have paved an important path for continued interagency coordination and championed the pivotal, long-term role of best available science to fill knowledge gaps and to inform management decisions in the Delta. While much remains ahead, DPIIC's collaborative framework provides a forum to leverage the authority and expertise of the member agencies, resolve issues, and make progress on Delta Plan implementation actions.

Supporting the Delta Plan through Best Available Science for Long-Term Management

As required by the Delta Reform Act, the Delta Plan is rooted in best available science, which is defined in the Delta Plan as science

developed through a process that meets the criteria of relevance, inclusiveness, objectivity, transparency and openness, timeliness, and peer review. Bolstered by its Delta Science Program, the Council is a champion for an open Delta science community and an advocate for the use of best available science in covered actions and other management decisions that affect the Delta.

Over the last six years, the Delta Science Program has worked with agencies, academic institutions, and stakeholder groups to create a three-part planning, implementation, and reporting strategy that embodies an open, collaborative "One Delta, One Science" community of scientists, policymakers, and decision makers. This strategy includes the:

- Delta Science Plan
- Science Action Agenda
- State of Bay-Delta Science

The Delta Science Program also works to strengthen science and policy connections across agencies, coordinate and promote science synthesis, manage and reduce conflict, support effective adaptive management, and advance the overall understanding of the Delta. These efforts are reflected in the 20 science peer reviews, 23 synthesis workshops and symposia, and 80 brown-bag seminars facilitated by the Delta Science Program from 2013 to 2018.

One example of how the Delta Science Program supports policy and decision-making in the Delta is its coordination of a critical biennial science review to inform the long-term operations of the federal Central Valley Project and the State Water Project, which distribute water throughout California. This review ultimately guides actions intended to reduce threats to species listed under the Endangered Species Act, prevents critical habitat loss due to long-term operation of the Central Valley Project and State Water Project, and informs future water operations.

The Delta Science Program's activities continue to be an important mechanism for scientists to coordinate research and communicate findings and forecasts to policymakers and resource managers who rely on best available science to make informed decisions for the region. Their interagency coordination and work are key for adaptively managing the Delta Plan through amendments to the Plan, review of covered actions, and implementation of the Plan's policies and recommendations.



Delta Independent Science Board

The Delta Independent Science Board is made up of nationally and internationally prominent scientists with the expertise to evaluate the broad range of scientific programs that support adaptive management of the Delta. Through its science and program reviews, the Delta Independent Science Board provides oversight of scientific research, monitoring, and assessment programs in the Delta and advises the Council on the Delta Plan. From 2013 to 2018, the Delta Independent Science Board completed six programmatic reviews on the topics of habitat restoration, fish and flows, Delta levees, adaptive management, Delta as a place, and water quality to help inform federal, state, and local activities, the Delta Science Plan, the Delta Plan, and other Council initiatives. These reviews increase scientific credibility, improve research clarity, and evaluate effectiveness of the Delta science enterprise. The Council uses Delta Plan feedback to ensure the plan is based on the best available scientific information.

Advancing Funding in the Delta

The Council invested a considerable amount of time during the first six years of implementing the Delta Plan to ensure that funding for activities in the Delta and its watershed align with the objectives of the Delta Plan, the Delta Science Plan, and the 2017-2021 Science Action Agenda.

Approved by California voters in 2014, the Water Quality, Supply, and Infrastructure Improvement Act (Proposition 1), is one of the largest sources of funding for water infrastructure, science, and planning statewide. Proposition 1 authorized \$7.5 billion in general obligation bonds to fund ecosystem and watershed protection and restoration; water supply infrastructure projects, including surface and groundwater storage; and clean drinking water. Many of these activities will affect the Delta directly or indirectly.

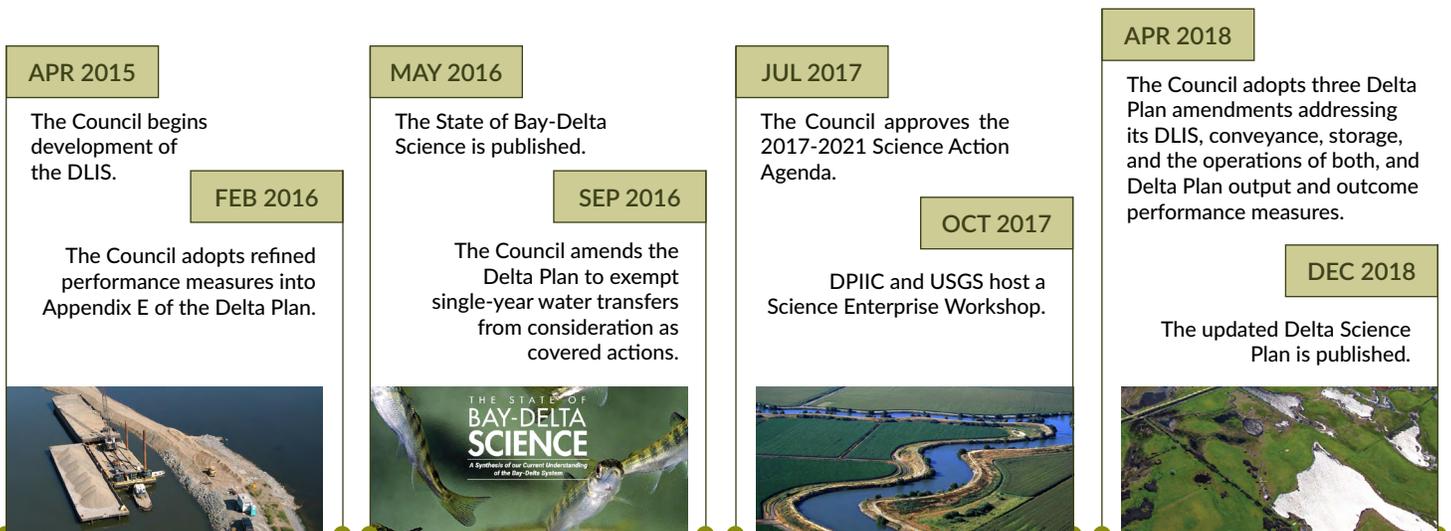
The Council has influenced the allocation of Proposition 1 funds to further the coequal goals by collaborating with federal and state agencies, including the California Water Commission, the California Department of Water Resources, the California Department of Fish and Wildlife (CDFW), the

State Water Resources Control Board, the U.S. Bureau of Reclamation (Reclamation), and others. This collaboration includes identifying and aligning funding priorities across agencies with the Delta Reform Act, Delta Plan regulations, and Delta Plan objectives.

In 2018, the Council led a joint funding solicitation with CDFW and Reclamation for new Delta science studies, demonstrating leadership roles in building capacity for the “One Delta, One Science” framework that promotes an open Delta science community working together to build a shared body of knowledge. The effort marked the first large, multiagency, competitive Delta science research solicitation in close to a decade, attracting 62 proposals requesting \$43 million in funding. The solicitation specifically prioritized action areas from the Science Action Agenda, as well as science topics from CDFW’s Delta Water Quality and Ecosystem Restoration Grant Program. The Council, CDFW, and Reclamation ultimately awarded nearly \$17 million to fund 26 critical scientific studies through 2022 benefiting the Delta and Suisun Marsh.

While the Council’s influence on funding in the Delta is an important accomplishment for a relatively new state agency, the Council recognizes the highly variable nature of funding in the Delta and ongoing barriers to coordinate and secure long-term funding. The Council is committed to continued collaboration in order to overcome institutional barriers, to align federal, state, and local resources, and to prioritize reliable future funding to meet the objectives of the Delta Plan.

While far from an exhaustive list of the complete work and accomplishments of the Council, DPIIC, the Delta Science Program, and the Delta Independent Science Board, this summary reflects the success of initial efforts to implement the Delta Plan in the six years since it was adopted. More importantly, these milestones represent a solid framework on which to build for future Delta Plan implementation. The forward-looking efforts of these agencies underscore the commitment of both the Council and the broader Delta community to continue collaboration using the best available science. This commitment is crucial to meet the challenge of managing the ever-changing Delta landscape.





Findings and Recommendations

Despite the inherent challenges associated with the long-term management of a system as complex as the Delta, there is ample reason for optimism. The Five-Year Review process shined light on the Delta Plan and its recent amendments as generally effective in guiding the actions of state and local agencies working in the Delta. The Delta Plan does not require immediate significant changes to ensure successful implementation or to support the

achievement of the coequal goals. Rather, the Council will focus on implementation activities over the next five years. Providing a stable and consistent plan and regulatory framework will support the sustained implementation of activities needed to achieve the coequal goals.

The following sections describe general findings from the Five-Year Review and next steps to address remaining challenges.

ADAPTIVE MANAGEMENT OF THE DELTA PLAN

Part of the Delta Plan's strength is its adaptable nature, which occurs through the amendment process. When necessary, the Council can amend the Delta Plan to respond to new information, changing conditions, or other factors.

ROLE OF REGULATORY POLICIES AND PROCESSES

The Delta Plan regulatory policies remain important, and Delta stakeholders have acknowledged that these policies are effective for managing activities in the Delta. The Council has made significant progress supporting policy implementation through agency coordination and early consultations, but acknowledges that continued communication with all stakeholders on covered actions are necessary for improved Delta Plan implementation.

NEW AND EVOLVING CHALLENGES

Some new challenges and initiatives, detailed in this document, could be considered for future amendments. These include key planning topics and emerging issues that have become increasingly important to California's decision makers and residents alike due to our current understanding of science, the societal importance of the issue, or both. Emergence of new and evolving challenges is expected for long-term plans and does not pose a significant barrier to continued implementation of the Delta Plan.

OTHER FINDINGS

While conducting a detailed assessment of the Delta Plan, the Council identified a number of references, facts, and figures that need updating. This includes several administrative performance measures that are out of alignment with current Delta Plan recommendations (due to amendments) or are out of alignment with current management priorities and frameworks (due to shifts in priority or legislation).

Next Steps to Address Remaining Challenges

The Council and stakeholders acknowledge that it will take time and focused effort to improve physical conditions in the Delta, even though changes in governance reflect a positive trajectory in Delta Plan implementation. To this end, the Delta Plan in its current, as amended, form is effectively guiding the actions of state and local agencies working in the Delta, and the next five years are best spent focusing on implementing activities to achieve the coequal goals.

The following sections provide an overview of the specific findings and recommendations for future implementation activities that will guide Council resources over the next five years, and identify key planning topics and emerging issues that warrant additional attention.

Specific Five-Year Review Findings and Recommendations for Strengthening Future Delta Plan Implementation

Based on the Delta Plan Five-Year Review process, accompanying stakeholder feedback, analysis of the Delta Plan, and subsequent implementation actions, the Council identified seven specific findings regarding ongoing Plan implementation: four findings related to covered actions, two findings related to Delta Plan performance measures, and one finding related to staff development.

TOPIC	RECOMMENDATIONS	ACTIONS
COVERED ACTIONS		
1 Outreach and Early Consultation	<p>Communicate proactively with project proponents in early consultation.</p> <p>Expand use of Council meetings and reports to communicate status of early consultations and certifications of consistency.</p>	<p>Develop a process to track and report the status of active covered action projects.</p> <p>Invest in developing relationships with local government to build understanding of covered action requirements and how the Delta Plan can help guide planning activities.</p> <p>Develop a GIS-based web map to advise project proponents on potential impacts of the Delta Plan's spatial policies.</p>
2 Administrative Procedures	<p>Identify warranted changes to administrative procedures based on covered actions and appeals to date.</p>	<p>Review administrative procedures to identify the scope of changes based on covered actions and appeals to date.</p> <p>Conduct a Council workshop on administrative procedures to elicit lessons learned.</p>
3 Adaptive Management	<p>Enhance adaptive management outreach.</p> <p>Focus early consultation on project-specific needs.</p> <p>Work with agencies to develop tools and information recommended in the Delta Conservation Adaptive Management Action Strategy.</p>	<p>Focus early consultation on project-specific needs by offering support and providing project proponents with relevant example adaptive management plans.</p> <p>Work with the Interagency Adaptive Management Integration Team to develop tools and information recommended in the Delta Conservation Adaptive Management Action Strategy to support efforts of individual restoration projects and integration of efforts across the system.</p>
4 Best Available Science	<p>Enhance outreach to project proponents to support best available science considerations in early consultation.</p> <p>Identify priority topics for research to include in future Science Action Agendas.</p>	<p>Focus early consultation on project-specific best available science needs, and ways to document it, with emphasis on thorough explanations of policy criteria.</p> <p>Develop scientific tools, venues, products, and publications through Science Action Agenda priorities for project proponents to use when developing certifications of consistency.</p>
PERFORMANCE MEASURES		
1 Delta Plan Recommendations and Administrative Performance Measures	<p>Develop strategies and approaches for outreach, engagement, and collaboration with implementing agencies.</p> <p>Build on the existing monitoring system to improve tracking performance measures.</p> <p>Establish a process to manage changes that affect Delta Plan recommendations and administrative performance measures.</p>	<p>Develop targeted work plans to pursue Delta Plan recommendations that align with current partner agency activities.</p> <p>Build on the existing monitoring system used to maintain the Administrative Performance Measures Dashboard to improve its utility.</p> <p>Revise Delta Plan recommendations and administrative performance measures to ensure alignment with the Delta Plan.</p>
2 Tracking Output and Outcome Performance Measures	<p>Monitor and use output and outcome performance measures to inform conclusions about the trajectory of Delta Plan performance.</p> <p>Communicate with partner agencies and the public about priority Delta Plan recommendations and progress toward accomplishing them, to raise awareness.</p>	<p>Communicate output and outcome performance measures information and implications to stakeholders.</p> <p>Improve the value of the reporting tool through continuous, timely content updates and connecting users to more resources.</p>
STAFF DEVELOPMENT		
1 Staff Development and Technical Assistance	<p>Focus resources and efforts on the development of staff capacity, expertise, and information technology (IT) infrastructure improvements.</p> <p>Deploy new analytical tools to support decision-making.</p>	<p>Develop an IT infrastructure, hardware, and software update plan to meet needs and support migration to cloud-based computing.</p> <p>Continue to invest in resources to support covered actions and improve user experience, accessibility, and utility for project proponents.</p>

Key Planning Topics and Emerging Issues

Based on analysis of the Delta Plan, stakeholder feedback, and recent scientific findings, four planning topics and emerging issues were identified as having a specific need for more information and analysis to inform potential future actions: (1) environmental justice and disadvantaged communities; (2) robust treatment of

climate change risks to the Delta; (3) federal coordination and participation; and (4) various aspects of the Delta as an evolving place. The Council has already begun to develop additional information related to each of these issues to support future policy decisions or implementation activities, but additional work is needed prior to deciding on an appropriate policy response.

 Completed
  In Progress
  Not Started

TOPIC / ISSUE	RECOMMENDATIONS	ACTIONS
 Environmental Justice and Disadvantaged Communities	Past legislation, executive actions, covered action appeals, and Delta Plan amendments have underscored the significant need for a deeper assessment of how the Delta Plan can support improvements in environmental justice and conditions for disadvantaged communities.	 2018 Delta Plan amendments include recommendations that support sustainable water management statewide, benefit disadvantaged communities, and help ensure the right to safe, clean, affordable, and accessible water for consumption and domestic use.  Develop a public participation plan that will address how environmental justice and disadvantaged communities can be better integrated into the Council's decision-making processes.  Develop an issue paper that summarizes the best available science for additional responses within the Delta Plan to address disadvantaged communities and environmental justice.
 Robust Treatment of Climate Change Risks to the Delta	While the Delta Plan recognizes climate change as a critical global stressor, the effects to the Delta ecosystem are discussed with limited focus on management strategies to address vulnerabilities.	 Integrate climate change science into Delta Plan Chapter 4, Protect, Restore, and Enhance the Delta Ecosystem. Proposed revisions will focus on achieving successful restoration under predicted future conditions, consistent with updated state climate change guidance.  Create a climate change vulnerability assessment and adaptation strategy for the Delta and Suisun Marsh, working closely with federal, state, and local agencies. Upon completion, the Council will evaluate the potential for Delta Plan amendments to better address climate change risks.
 Federal Coordination and Participation	While the Council has had several successful partnerships with federal agencies, potential for additional and improved coordination and participation remains.	 Develop an issue paper that outlines opportunities and potential strategies for further engagement with federal agencies.
 Delta as an Evolving Place	Treatment of the Delta as an evolving place continues to require the consideration of additional strategies to increase resilience in the face of change.	 Develop an issue paper that summarizes the best available science and identifies policy options related to the Delta as an evolving place.  Continue to engage the Delta Protection Advisory Committee and the Delta Protection Commission, focusing on specific efforts to engage with Delta representatives when conducting future Delta Plan amendments.

In Conclusion

On a fundamental level, the first five years of implementing the Delta Plan tested an entirely new approach to managing one of the most complex natural systems in the world—an approach that is working. Since the Delta Plan was first adopted in 2013, not only has the Council solidified its role as a leader through its proactive and transparent facilitation of decision-making among key Delta players, it has successfully asserted its regulatory and appellate authority through the review of covered actions, certifications of consistency, and appeals of covered actions in the Delta.

Recognizing that the fate of the Delta depends on the ability of its actors to work together in new and innovative ways, the Council has doubled down on investing in and leading collaborative efforts, and has blazed new trails in federal, state, and local agency coordination. Supported by the reputation of its Delta Science Program and the advice of the Delta Independent Science Board, the Council has championed the unifying role that best available science can play to inform critical policy and reduce conflict in resource management

decisions in the Delta. While this trailblazing has not been without its difficulties and setbacks, the Council has laid a strong foundation for future work in support of the Delta Plan.

The road ahead is far from smooth. Climate change impacts in the form of extreme drought, more frequent flood events, a dwindling Sierra snowpack, and rising sea levels will increase pressure on the Delta's levees, as well as the demand for the Delta's already stressed resources. These challenges will continue to test natural resource managers, scientists, and decision makers long into the future.

Yet in this dynamic physical and policy landscape, the Council will remain focused on the core principles and strategies that have made the Delta Plan successful to date, and through data and reflection, the Council will make adjustments to reach its goals. Together with its partner agencies, the Council is committed to a long-term, big-picture approach to implementing the Delta Plan and building a more resilient Delta for all.