



DELTA STEWARDSHIP COUNCIL

2019 Annual Report

Creating Common Ground for Science and Policy





PHOTO CREDIT:

Photos throughout this report are courtesy of the California Department of Water Resources,
Delta Stewardship Council staff, and Francisco Chavira (cover).

➤ Introduction by Executive Officer Jessica R. Pearson



Building on decades of lessons learned in California natural resource management, the Delta Plan is the only long-term, comprehensive blueprint designed to adapt to changing conditions and to achieve the state's coequal goals for the Sacramento-San Joaquin Delta (Delta). The Delta Stewardship Council (Council) is the state agency responsible for overseeing the implementation of this blueprint.

This past year was one of reflection for the Council as it completed both the first legislatively mandated five-year review of the Delta Plan and a five-year review and update of the supporting Delta Science Plan. Conducted with robust internal analysis and external stakeholder engagement, our review concluded that the Delta Plan provides a solid foundation for guiding the actions of state and local agencies that work in the Delta. We also identified future priorities and challenges to guide the Council's work. The Delta Science Plan update identified the need to increase social science understanding in the Delta, more fully consider climate change, improve science governance, and provide consistent funding for Delta science, along with other improvements for overall science coordination.

To better quantify progress as we move forward, as well as to inform where a change in approach is needed, the Council this year launched a comprehensive Delta Plan performance measures online dashboard. The dashboard allows the Council and Delta Plan implementing agencies to integrate science and monitoring results into decision-making, adaptive management, and to track progress toward achieving Delta Plan strategies, policies, and recommendations.

The year also saw a renewed commitment by the Council, its staff, and the Delta Plan Interagency Implementation Committee (DPIIC) to support long-term, reliable science funding for sound policy and management actions in the Delta. Marking the first competitive Delta science research solicitation in nearly a decade, the Council invested \$7.79 million—leveraging \$16.9 million in total funding with our partners—in science today for more effective decisions tomorrow.

Driving this progress is a group of dedicated policymakers, scientists, planners, engineers, attorneys, communicators, and support staff who are committed to creating a lasting impact both in the Delta and throughout California. This annual report serves to highlight the work of the Council and its partners this year, while also looking toward future opportunities.

A handwritten signature in black ink that reads "JRP".

Jessica R. Pearson, Executive Officer

➤ Creating Common Ground for Effective Science and Policy in the Delta and Beyond

In the face of divergent approaches to Delta management, the Council is successfully creating common ground for the long-term stewardship of the Delta through dedicated engagement with the Delta community as well as the development of new information to guide decisions. Through its implementation of the Delta Plan, the Council continues to demonstrate leadership in ways that amplify and build on other agencies' progress on climate change, water supply reliability, ecosystem health, and the people and places associated with these topics.

This year, Council Chair Susan Tatayon worked closely with leaders from the California Natural Resources Agency, the California Environmental Protection Agency, and the California Department of Food and Agriculture to ensure emphasis on Delta connections in Governor Gavin Newsom's Water Resilience Portfolio Initiative (Executive Order N-10-19). Improving regional self-reliance, prioritizing multi-benefit projects and reducing barriers to get projects off the ground faster, evaluating how conveyance, storage, and operations can complement natural infrastructure like floodplains and wetlands to meet current and future needs of people and the environment, and strengthening partnerships – particularly through existing entities like the DPIIC – are all areas of shared interest. Overall, the initiative presents a tremendous opportunity for natural resource agencies to integrate and strengthen existing policies and associated actions as part of California's water future through the 21st century.





➤ Tracking Progress Toward the Coequal Goals

The more we work together to develop and implement the Delta Plan as one state, the faster we can see progress toward achieving the coequal goals. During its five-year review of the Delta Plan, the Council reflected on the successes and challenges of initial efforts across agencies to implement the Plan, focused and prioritized the Council's near-term and future implementation efforts, and identified future planning topics and emerging issues. The perspectives of agencies and stakeholders that use the Delta Plan strongly shaped and informed the final review. The process found the Delta Plan to be effective, but also identified new and evolving challenges to address in the near-term and in the future, including improved outreach, coordination, and engagement with Delta Plan implementing agencies, Delta communities, and other partners.

After incorporating a suite of new and updated measures to reflect best available science and amendments made to the Delta Plan in recent years, the Council created an online dashboard that visualizes the Delta Plan's performance measures and associated metrics, baselines, and targets. The tool provides access to performance measure information and data and allows agencies involved with implementing the Delta Plan to view and track the status and trends of specific performance measures over time. More broadly, the online dashboard increases the accessibility of Delta Plan strategies, policies, and recommendations and associated baselines and targets for implementing agencies and the public.

 **Cory Copeland** @CoryCopelandH2O

It's me! The @DeltaCouncil is talking about our Delta Plan performance measure work for #sciencefriday

 **Delta Stewardship Council** @DeltaCouncil · Jun 14
Meet the @DeltaCouncil performance measures team! 

Led by Program Manager Martina Koller, Environmental Scientists @CoryCopelandH2O, Scott Navarro, + Chris Kian compile data from sources like @CA_DWR + @USGS to track #sacdelta management actions related to #icawater. #scifri



7:45 AM · Jun 14, 2019 · Twitter for Android

6 Likes



A Reliable Statewide Water Supply

The Delta Reform Act of 2009 made it state policy to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency.

Reinforcing its commitment to statewide water resilience, the Council held its September 2019 meeting in Orange County to discuss water resilience efforts with Southern California regional and local water agencies. During this meeting, councilmembers engaged with presenters around short- and long-term water supply planning, current and future projects, and innovative water management approaches. The meeting was also an opportunity to explore Orange County's Groundwater Replenishment System, the world's largest advanced water purification system for potable reuse.

The Council acknowledges the major processes driven by other agencies that affect statewide water supply and the Delta. This includes biological opinions regarding whether federal agency action is likely to jeopardize the existence of species listed under the Endangered Species Act and updates to the State Water Resources Control Board's regulatory framework for protecting fish and wildlife, water quality, and other beneficial uses of water

in the Delta and its watersheds. The Council is working through bodies such as the DPIIC to plan and prepare for potential long-term impacts to the Delta resulting from these processes.

A Protected, Restored, and Enhanced Delta Ecosystem

Staff dedicated tremendous effort this year to preparing for the release of a preliminary draft amendment to Chapter 4 of the Delta Plan: Protect, Restore, and Enhance the Delta Ecosystem. Culminating years of research, planning, and stakeholder engagement, the preliminary draft amendment proposes a fundamental shift in restoration and conservation in the Delta beyond mitigation to get more multi-benefit projects off the ground faster.

At its core, the preliminary draft amendment calls for increasing land and water connections to create more habitat and food for fish and wildlife to restore ecosystem function at a landscape-scale. The preliminary draft amendment considers the impacts of climate change, including sea level rise, incorporates lessons learned adaptively managing the Delta ecosystem, identifies best practices for restoration projects, and addresses institutional changes head-on to expedite projects so species recovery can begin as soon as possible.

In an effort to improve the accessibility of its work to the Delta community, Council staff shared an update on the preliminary draft amendment at a meeting held in June at the East Bay Regional Park District's Big Break Regional Shoreline in Oakley. The environmental impact review process

for the amendment is expected to kickoff in 2020, with ongoing opportunities for continued public involvement.

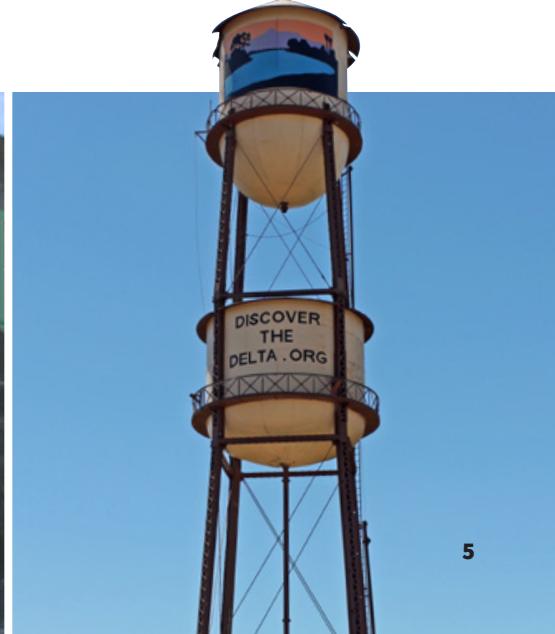
The Delta Science Program's adaptive management team made measurable progress this year toward integrating adaptive management into Delta projects, including publication of the Delta Conservation and Adaptive Management Strategy document that sets a framework for multi-agency collaboration for implementation and evaluation of restoration. The Delta Science Program led the development of this document in a collaborative fashion with the 18-member Interagency Adaptive Management Integration Team. In addition to achieving this major milestone, this group maintains steady momentum as a technical coordinating body to strengthen interagency collaboration and provide resources, input, and guidance on adaptive management for current and future Delta conservation efforts. Also in 2019, the Delta Science Program coordinated and facilitated the first-ever Adaptive Management Forum. The event brought together nationally recognized experts in adaptive management processes for a focused, two-day discussion to further refine adaptive management integration in the Delta.



Delta as A Place

In 2019, Council staff dedicated substantial effort toward better understanding how the Delta Plan and related management actions impact Delta communities as part of its Delta Plan Five-Year Review as well as a forthcoming Public Participation Plan. Through this process, Council staff identified areas for improvement, including the need for more outreach and increased communication around its decision-making process.

Led by the Delta Science Program, the Delta Social Science Task Force was formed in 2019 to develop a strategic plan that strengthens and integrates social sciences into the Delta science,



> 2019 Highlights

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
<p>January 17 Council rolls out Delta Plan Five-Year Review survey</p> <p>January 24 Council adopts resolution related to Delta Plan Mitigation Measures rulemaking and conducts public hearing on Smith Canal Gate project appeal</p>  <p>January 29 Delta Science Program facilitates Delta Social Science Task Force kickoff meeting</p>	<p>February 5–6 Council hosts first-ever two-day Adaptive Management Forum</p>  <p>February 11 Council welcomes Louise Conrad as deputy executive officer for science</p> <p>February 21 Staff publishes draft determination for Smith Canal Gate project</p>	<p>March 8 Council welcomes Harriet Lai Ross as assistant planning director</p>  <p>March 12 The Delta is established as California's first National Heritage Area</p> <p>March 21 Council considers and denies appeal of the Smith Canal Gate project at its meeting and public hearing in Stockton</p> <p>March 21 Council holds retreat to discuss its authorities, responsibilities, and priorities in relation to implementation of the Delta Reform Act of 2009</p>  <p>March 25 Council publishes nutria pocket guide with partner agencies</p> <p>March 28 Chair Tatayon launches new blog series</p>	<p>April 8 Council introduces online performance measures dashboard tool</p> <p>April 8 DPIIC meets to discuss opportunities for strengthening and supporting the Delta science enterprise, progress toward protecting, restoring, and enhancing the Delta ecosystem, and interagency efforts to eradicate nutria</p>  <p>April 25 State, federal agencies fund \$16.9 million in new Delta science studies</p> <p>April 26 Facilitated by the Delta Science Program, the Bay-Delta Plan Biological Goals Scientific Advisory Panel publishes its report and recommendations to the State Water Resources Control Board, focusing on how to formulate goals to assess the status and trends of representative salmonids, other native fishes, and ecosystem processes</p> <p>April 30 Delta Independent Science Board hosts Monitoring Enterprise Review Workshop</p>	<p>May 7 Interagency Adaptive Management Integration Team publishes Delta Conservation Adaptive Management Action Strategy</p> <p>May 15 Central Valley Regional Water Quality Control Board calls upon Delta Science Program to lead independent scientific review of Delta mercury control studies</p>  <p>May 22 Delta Science Program begins three-part brown bag seminar series on integrating the Bay and Delta</p>	 <p>June 5–7 Council staff attend Water Education Foundation's Bay-Delta Tour, kicked off with an introduction to the Delta by Executive Officer Pearson</p>  <p>June 25 Council seeks candidates to fill upcoming Delta lead scientist and Delta ISB vacancies</p> <p>June 27 Delta Science Program publishes 2019 update to Delta Science Plan</p>  <p>June 27 Council holds meeting in Oakley to review preliminary draft Delta Plan Chapter 4 content and tour Big Break Regional Shoreline</p>

JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
<p>July 1 Council presents updated deltacouncil.ca.gov website, accessible for all audiences</p> <p>July 5 Council proposes Delta Levees Investment Strategy rulemaking</p> 	<p>August 22 Council conducts public hearing on Delta Levees Investment Strategy rulemaking</p> <p>August 23 Bay-Delta Plan Biological Goals Scientific Advisory Panel publishes scientific review of Delta Mercury Control Program phase 1 methylmercury control studies</p> 	<p>September 17 Council sponsors and presents at an interagency Climate Change Vulnerability and Adaptation Summit and Workshop hosted by the California Department of Water Resources</p> <p>September 24 COMPASS leads science communication training for Council staff</p> 	<p>October 2 Council holds a stakeholder workgroup meeting to obtain input for its Climate Change Vulnerability Assessment</p> <p>October 21–22 Council sponsors the 2019 update to the State of the Estuary Report and 14th Biennial State of the San Francisco Estuary Conference</p> 	<p>November 4 DPIIC meets to discuss aligning objectives toward a resilient water future for California and actions to achieve consistent science funding</p> <p>November 19 Delta Science Program cohosts Thresholds and Ecosystem Restoration Symposium with UC Davis Coastal and Marine Sciences Institute</p> 	 <p>December 5 New issue of Estuary News Magazine celebrates Council efforts including State of the San Francisco Estuary Conference sponsorship and rollout of preliminary public review draft of Delta Plan Chapter 4</p> <p>December 23 Delta Social Science Task Force publishes Draft Social Science Strategy for the Sacramento-San Joaquin Delta</p>
<p>July 15 DPIIC holds special third meeting for the year, focusing on the Water Resilience Portfolio Initiative</p> <p>July 23 Delta Social Science Task Force cohosts Human Dimensions Research in Delta Environments Workshop with Delta Science Program and UC Davis Coastal and Marine Sciences Institute</p>	<p>August 29 Delta Interagency Invasive Species Coordination team cohosts Delta Invasive Species Symposium with UC Agriculture and Natural Resources Cooperative Extension, The Freshwater Trust, and UC Davis</p>	<p>September 26 Council holds meeting in Southern California and tours Orange County's Groundwater Replenishment System</p>	<p>October 24 Council endorses Delta Plan Five-Year Review Report and Highlights, marking its completion</p> <p>October 25 Council holds retreat to discuss communications planning and multi-year work plan</p> 	<p>November 21 Council publishes preliminary public review draft of Delta Plan Chapter 4</p>	

management, and policy landscape. The Task Force is a unique effort that is drawing new perspectives and expertise into conversations about Delta management approaches.

To effectively and reliably reduce risk to people, property, and state interests in the Delta, the Council this year continued to collaborate with the Department of Water Resources (DWR) and the Central Valley Flood Protection Board on a strategy to strengthen Delta levee improvement programs. This effort culminated with the DWR's first annual report to the Council regarding Delta levee investments – totaling more than \$123 million – from fiscal year 2018-2019.

In March, the Sacramento-San Joaquin Delta National Heritage Area Act established the Delta as the first National Heritage Area in California's history. Long supported by the Council, the designation authorized \$10 million in federal grant funding over 15 years to provide matching grants to local governments, historical societies, and community nonprofit organizations throughout the region. This funding will support cultural and historical preservation and environmental conservation projects under a locally developed management plan, coordinated by our sister agency, the Delta Protection Commission. The Council looks forward to collaborating on this important project.



Improving Efficacy of the Delta Plan and its Requirements

The Council's covered action consistency review process is the formal channel 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. In 2019, the Council received four certifications of consistency for covered actions. The Council considered and denied one appeal that challenged the consistency of a Smith Canal Gate project with the Delta Plan that was filed in 2018. A public hearing and adoption meeting on the project was held in Stockton near the site of the project to accommodate local attendance and improve public access to the Council's decision-making process.

The Smith Canal Gate project marked the second appeal of a certification of consistency and the Council's first adopted appeal determination since the Delta Plan's regulations were codified in 2013. The process deepened both the Council's and the public's understanding of the Council's role in implementing the Delta Plan's policies, as well as how the process relates to on-the-ground activities in the Delta and its communities.

Additionally, the Council distributed nearly 30 comment letters – the most in a single year since the Council was created – to other agencies to identify potential covered actions and to ensure state and local agencies were aware of the Delta Plan's requirements and how they may apply to their work. This outreach is part of the Council's early consultation process, which continues to successfully engage state and local agencies regarding certification of consistency requirements.

➤ Building Capacity for One Delta, One Science

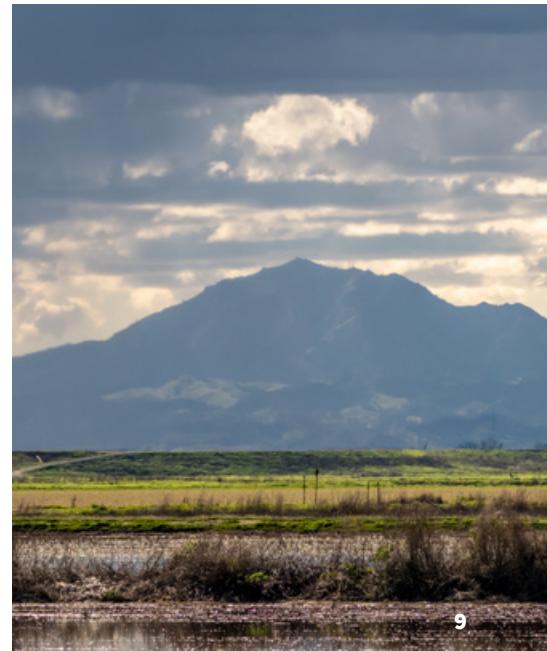
A coordinated, science-based approach to decision-making is essential for effectively managing the Delta. Supported by the Delta Science Program and the Delta Independent Science Board (Delta ISB), the Council continues to champion policy and decision-making informed by best available science to reduce uncertainty and conflict in resource management decisions in the region.

Climate Change Vulnerability and Adaptation

In response to the reality of a rapidly changing environment, the Council in 2019 began meeting with state, regional, and local partners to discuss climate risks and determine climate vulnerabilities, and—in 2020—will begin to jointly develop adaptation strategies for the Delta. The Council's Climate Change Vulnerability Assessment and Adaptation Strategy is the first comprehensive climate assessment for the Delta and will be a vital tool for building local resilience for Delta communities. This multi-year project will inform potential future Delta Plan amendments and implementation, help the state prioritize adaptation investments, and equip local government agencies with tools and strategies that they can implement to address climate change.

Improving Funding for Delta Science

In the first large-scale, multi-agency competitive Delta science research solicitation in nearly a decade, the Delta Science Program funded 15 proposals in 2019. The Delta Science Program, the California Department of Fish and Wildlife (CDFW), and the U.S. Bureau of Reclamation (Reclamation) awarded a total of \$16.9 million for high priority science research in the Delta. When combined with ongoing efforts, the new research will help us better understand and evaluate critical management decisions in the Delta.



The call for proposals was framed on the Delta Science Program's 2017–2021 Science Action Agenda, which prioritizes and aligns Delta science actions to inform management decisions and fill critical knowledge gaps.



Coordination and collaboration across federal, state, and local agencies that operate in the Delta are critical to implement the Delta Plan effectively; the DPIIC remains central to this effort. One of the group's major accomplishments this year was a multi-stakeholder science funding and governance initiative and white paper with recommendations for increasing science funding and the endorsement of a suite of implementation actions to increase long-term, reliable science funding in the Delta. In 2020, the DPIIC will implement the priority and foundational actions identified by the science funding and governance initiative.

One Estuary, One Science

A major milestone for the Delta Science Program in 2019 was a five-year review and update to the Delta Science Plan highlighting actions, objectives, and approaches for coordinating Delta science across the entire Delta science enterprise. The process took an open, transparent, and inclusive approach and involved input from a diverse range of federal and state agencies, stakeholders, academia, and the public in order to ensure broad buy-in to the updated Plan. Complete with a preamble and endorsement by the 18 federal and state agencies that comprise the DPIIC, the document provides a framework and specific actions needed for enhancing collaboration in the science enterprise of the Bay-Delta and for bolstering connections and communications between scientists and those charged with decisions for policy and regional management actions in the Delta.

2019 also saw the implementation of multiple Delta Science Plan and Science Action Agenda priorities, including efforts to improve interagency integrated modeling and structured decision-making to streamline decision-making, and the establishment of a Delta Social Science Task Force to integrate human dimensions with natural resource management. The DPIIC also continued to highlight the need for collaborative action in protecting, restoring, and enhancing the Delta ecosystem.



Additional achievements by the Council this year included facilitating a 2019 update to the State of the Estuary Report and co-sponsorship of the State of the San Francisco Estuary Conference. The update to the State of the Estuary Report integrated indicators across the Bay and Delta and put an emphasis on ecosystem health and human use of the estuary with the identification of emerging indicators that will be more fully developed in the next update, including indicators related to subsidence and shoreline resiliency. The biennial conference brings together scientists and decision makers to share updates and strategies around the health of the estuary. This year's conference highlighted the importance of climate resilience across the estuary and the need for researchers and policymakers to engage early and often with community and environmental justice groups. Another significant emphasis was a call to expand the focus of One Delta, One Science to One Estuary, One Science, highlighting the importance of coordinating science and management efforts from the watershed to the ocean.

With less than 2 wks until #sfestuaryconf, we're celebrating our incredible partners and sponsors who help make it happen! First up: @DeltaCouncil! We'll be hearing from these great folks on everything from #cawater mgmt to science-based policy updates to reg. governance.

My first panel moderation! Amazing panel, great challenging questions from a fabulously engaged audience, & thought-provoking discussions on the importance of science that's anticipatory and responsive to management needs in the face of rapid environmental change. #sfestuaryconf

To the delight of the audience, Senior Environmental Scientist Yumiko Hennberry (@yumberry62) asked panelists to describe the meaning of "forward-looking science" in 200 characters or less. AKA tweet-friendly!

Delta Independent Science Board

Based on its reviews from 2018, the Delta ISB determined the state's overall approach to science in the Delta as substantial and useful for decision makers. At the same time, it cautioned that the scientific enterprise must better organize and accelerate efforts to address the rapidly growing and interlinked challenges facing science-based policy. From this assessment, the Delta ISB called on the DPIIC in early 2019 to initiate and lead a bolder, more forward-looking, and better-integrated science and management program that provides policymakers and managers with better scientific information and management options for the Delta.

Working collaboratively with the DPIIC, the Delta ISB began working with federal, state, and local agencies to develop a science needs assessment, as part of the larger Delta science funding and governance initiative, to provide long-term management insights in the context of rapid environmental change.

In addition, the Delta ISB finished its review on the Interagency Ecological Program's (IEP) ability to provide science to support management of the Delta. It found that the IEP had – and continues to have – high value to Delta science and management but that the IEP could significantly improve its value to its members, stakeholders, and to the management of the Delta. The Delta ISB also made substantial progress toward its comprehensive review of Delta monitoring efforts, with the recent completion of an inventory of existing monitoring. This inventory, along with a workshop held earlier in 2019, will inform the Delta ISB as it makes recommendations for addressing monitoring gaps and other improvements to existing monitoring efforts in the Delta.

These reviews are an important third-party look at how science and data collection are connected to decision-making and whether there is a need to adjust practices based on changes in the system or in scientific techniques.

Lastly, this year also saw the recruitment of new Delta ISB members as five members reach their 10 year term limit in 2020. Alongside a new Delta lead scientist, these new members will begin their terms in 2020.

➤ Communication and Outreach

Clear and timely communication is fundamental to the Council and its implementation of the Delta Plan. In July, the Council launched a new deltacouncil.ca.gov website that follows the Web Content Accessibility Guidelines international standard. The new site is accessible to people with a diverse range of hearing, movement, sight, and cognitive abilities and embodies the Council's commitment to inclusiveness and transparency.

 **Cory Copeland**
@CoryCopelandH2O

"As a policymaker, I value tools like replicable models and data visualization to inform decision-making." - Susan Tatayon, DSC chair

I couldn't agree more. 🌟 Check out Susan's short blog on dealing with the uncertainties of climate change in the Delta.

deltacouncil.ca.gov/blogs/climate-...

3:34 PM · Oct 31, 2019 · Twitter Web App

1 Retweet 3 Likes

Building on the Council's existing public-facing platforms, including its website, social media, and public meeting streaming, the Council this year also released a suite of new communication tools to distill complex subject matters into accessible information for the Delta's decision makers and stakeholders. This includes a new "From the Chair" blog series by Chair Tatayon, blogs from executive leadership and staff, an interagency nutria pocket guide, fact sheets, and frequently asked questions to communicate complex science and policy connections.

In support of its mission to transform science into action, the Delta Science Program organized four widely attended symposia in 2019: an Adaptive Management Forum, Human Dimensions in Research, Remote Sensing Applications for Invasive Species Management, and Thresholds and Ecosystem Restoration. Collectively, these events and their associated workgroups facilitated by the Delta Science Program advance specific objectives identified in the three-part Delta Science Strategy to build an open Delta science community that works together to develop a common, accessible body of scientific knowledge for informed decision-making.

➤ Looking Ahead

2019 was a year of growth and progress for the Council on many fronts. Empowered by the growing momentum of the Delta Plan, the Council and its staff are committed to carrying out their work with passion and dedication, integrity, innovation, collaboration, and diversity and inclusiveness. In the years ahead, the Council will continue to incorporate lessons learned from its engagement with stakeholders as it continues to build a lasting, relevant framework for interagency collaboration, informed decision-making, and natural resource management.

 **Karen Kayfetz**
@DeltaCouncil

Delta Independent Science Board diving deep today into Central Delta hydrodynamics. Time is near for automatically coupling water quality time-series data 📈 with fish trawls 🐟 to understand the environmental conditions that bring the fish 🐟 to where we find them.



9:21 AM · May 2, 2019 · Twitter for iPhone

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