

Our Estuary at an Intersection

Sacramento Convention Center

September 10–12, 2018

#BDSC2018

CALL FOR ABSTRACTS

**** ABSTRACT DEADLINE: April 23, 2018 ****

The **Biennial Bay-Delta Science Conference** is a forum for presenting technical analyses and results relevant to the Delta Science Program's mission to provide the best possible, unbiased, science-based information for water and environmental decision-making in the Bay-Delta system. The goal of the conference is to offer new information and syntheses to the broad community of scientists, engineers, resource managers, and stakeholders working on Bay-Delta issues. The organizers of this 10th Science Conference are seeking presentations that support this goal.

The conference program will feature oral and poster presentations that deliver scientific information and ideas relevant to the topic sessions. The conference theme this year is “**Our Estuary at an Intersection.**” Intersections are decision points and places where crossroads meet. The management of the Bay-Delta ecosystem sits at the crossroads of geography, ecology, economy, culture, and resource management. Navigating the intersection has direct implications for statewide water supply and efforts to improve the aquatic ecosystem for fisheries, recreation, and tourism. Achieving these goals requires science that addresses the intersection of geographical, ecological, physical, and social considerations in order to build long-term, resilient solutions.

In addition to general sessions and poster topics based on the abstracts received, conference participants may propose special oral sessions or poster clusters on topics of particular importance to the Bay-Delta, especially topics that address interdisciplinary intersections. Instructions for proposing a special session or poster cluster appear after the Conference Session Topics below. All abstracts for oral sessions (special and general) and posters (including clusters) are **due by 8:59 pm on Monday April 23rd, 2018.**

If you have questions about the oral presentation part of the program, please contact the Conference Program Co-Chairs Josh Israel (jaisrael@usbr.gov), Joe Domagalski (joed@usgs.gov), and Karen Kayfetz (karen.kayfetz@deltacouncil.ca.gov). If you are interested in serving as chair of a general session, please contact Josh, Joe, and Karen. Chair assignments will be made when the final list of conference sessions has been determined. For questions on posters or poster clusters, please contact the Poster Chairs: Sakura Evans (sakura.evans@Wildlife.ca.gov) and Judy Drexler (jdrexler@usgs.gov).

Scientist- Artist Collaborations

As in previous years, Bay-Delta Science artwork will be displayed in the poster hall. We have a general call for artist submissions, but also want to foster scientist-artist collaborations to communicate the science and deepen the art. Art-science collaborations at the 9th Biennial Bay-Delta Science Conference were very fruitful. Scientists don't need any art experience to participate, just curiosity and willingness to teach and learn! Your graphs and data visualizations are really just art in disguise! To find an artist collaborator, please email Bruce Herbold (bherbold@gmail.com) and Eva Bush (eva.bush@deltacouncil.ca.gov). For more information visit [art program](#) page.

Conference Session Topics:

Climate Impacts – Science to help effectively manage and build resilience despite trends in snowpack, sea level, drought, storm intensity, and other climate impacts. Management issues include water supply, habitat availability, human safety, and at-risk communities.

Fish Biology, Ecology, and Protection – Science that addresses basic life history, behavior, and population structure of Bay-Delta fishes and the factors that affect their distribution and abundance. Suggested topics include population dynamics, emerging methods and technologies, fishery management, migration and spawning behavior, trophic ecology, physiological responses to key environmental stressors, responses to extreme events, and science-based management strategies to protect fish populations. Presentations on engineering to support fish protection goals are also invited.

Flood Management – Science that helps to improve flood management and its relationship to water supply. Example topics include ecosystem restoration potential of levee projects, invasive vegetation management on and around levees, and novel approaches to achieve multiple benefits including protecting habitats, water quality, water supplies, agricultural lands, and infrastructure.

Food Webs – Science that provides new insights into ecological processes governing and connecting food webs in the Bay-Delta. Examples of topics include effects of contaminants, sediments, nutrients, species invasions, and climate.

Global and Watershed Perspectives – Science that compares Bay-Delta systems and processes to those in other areas of the globe. Of particular interest is research that highlights connections or discrepancies between regional and larger-scale processes and the Bay-Delta ecosystem, or examines effects of larger-scale processes on the ecosystem or its management. New perspectives to evaluate, plan, restore, and organize land management and other resource uses within a watershed to restore ecological health and improve water management are also encouraged.

Integrative Applied Science – Science that translates understanding of ecological functions and processes into effective science-based management strategies for the Bay-Delta system. Specific strategies include science-based decision-support tools,

collaborative approaches, effective communication strategies, use of conceptual models, and adaptive management.

Modeling – Science that employs quantitative models to address complex resource management questions. Specific examples include studies that couple hydrodynamic, sediment, particle tracking, and water quality models with ecosystem models such as those for native species and Bay-Delta and riverine food web dynamics.

Physical Processes – Science that improves the understanding of how physical processes such as hydrodynamics, sediment transport, and geomorphology may affect the Bay-Delta system.

Social Sciences and Human Dimensions – Science that explores the nexus of social and natural sciences in addressing environmental issues. New perspectives that assess the potential social, economic, and public health effects of actions and strategies implemented in the Bay-Delta system. Specific topics include human responses to environmental management actions, value-based tradeoffs among alternatives, water resource economics, local partnerships, watershed groups, environmental law, research into the mechanisms that change social norms, public perception of environmental issues, and environmental justice.

Species and Communities – Science that advances the understanding and management of key species and their ecological functions and requirements in the Bay-Delta and its watershed. Of particular interest are studies that could improve the utility of monitoring programs (project and landscape levels), or that focus on species of special concern, numerically dominant species, and nonnative invasive species.

Sustainable Habitats and Ecosystems – Science that provides new insights into the ecological and physical processes governing and connecting habitats in the Bay-Delta and its watershed. Lessons learned that can increase effectiveness of ecosystem restoration, protection, management and sustainability of riparian habitat, river channels, floodplains, flooded and in-channel islands, levees, wetlands, and terrestrial habitats may be highlighted. Topics could describe aquatic, terrestrial, or human ecosystem sustainability and the kinds of landscape characteristics that can be restored to re-introduce appropriate processes at the scales needed to sustain habitats.

Water and Sediment Quality – Science that advances understanding and management of key environmental and drinking water quality constituents, associated biogeochemical processes, and their ecological and public health effects within the Bay-Delta and its upstream watersheds. Key water and sediment quality constituents include inorganic and organic contaminants, organic matter, salinity, sediment, nutrients, and dissolved oxygen.

Water Supplies and Instream Flows – Science that advances water supply management strategies to improve water supply and stream flow reliability (timing, frequency, duration, magnitude, etc.). Management strategies may include operation/reoperation of water conveyance facilities, groundwater management (including implementation of the

Sustainable Groundwater Management Act), water use efficiency, water demand predictions, water transfers, and water storage. Of particular interest are strategies that incorporate adaptive management approaches.

Oral Presentations

Oral presentations are expected to advance our state of knowledge by focusing on new findings, models, and syntheses of past and ongoing studies that are relevant to the management or scientific understanding of the Bay-Delta rather than on project or program descriptions or summaries of planned studies. Because we anticipate that requests for oral presentations will exceed the available time slots the Program Committee will assign oral presentations based on technical merits of the abstract, including relevance of the topic, presentation of results, and importance of the findings. Abstracts should provide a clear description of the contribution, **including their relevance to Bay-Delta management**. Use of phrases such as “results will be discussed” is discouraged. Speakers will be limited to one oral presentation.

Special Oral Sessions

There will be a limited number of special sessions devoted to topics of particular interest to the Bay-Delta community. Proposals for special oral sessions, as well as for abstracts for individual talks in the special sessions, must be submitted by the abstract submission deadline (April 23, 2018). Special oral session proposals are to be submitted using a separate form available on the conference website and require a session title, the name of the session chair(s), a short (<200 words) description of the session topics (including relevance to Bay-Delta management) and a list of proposed presentation titles and authors. Each presentation proposed in the special oral session must have its own submitted abstract by the abstract deadline. Both submissions are required for special oral session proposals.

The special session presentations should be well integrated and representative of the current body of research on the topic. The Program Co-Chairs may also work with the Special Session Organizer (the person submitting the proposal) to develop the final configuration, including the possible addition of related talks from the pool of general submissions. Special sessions will be scheduled as one or two “blocks”. Each block consist of five 20-minute talks, and may include a panel discussion in place of one or more talks. Proposals including discussion panels should include the length of the discussion period (must be in 20-minute intervals). Because of the overwhelming demand for speaking slots, the length of the proposed special session is limited. Specifically, a given special session can range from ¼ of a day to a half day (1-2 session blocks). In case a special session proposal cannot be accepted, submitted abstracts may be considered for inclusion in other conference sessions.

Presentations on “management-relevant science” related to the session topic are encouraged. Examples of topics from past Bay-Delta Science Conferences include: Suisun Marsh and the Arc; Lost in Translation: The Art of Interpreting Complex Science for Policymakers; Anatomy of the Spring 2016 Phytoplankton Bloom in the Delta; and Adaptive Management in the Delta: Learning from Habitat Projects.

Poster Presentations

The poster session is a very important part of the Science Conference. Posters will be displayed throughout the conference, and will be featured during social sessions on the evenings of the first and second days of the conference to encourage open discussion between the presenters and conference attendees. Posters may also include project/program summaries relevant to Bay-Delta issues, as well as reports of work planned or in progress. Presenters should indicate the theme most pertinent to the subject of the poster from the list on the abstract submittal form, as the posters will be arranged by theme. **Inclusion of a statement in the text of the abstract and poster on the relevance of the study's findings to Bay-Delta management is strongly encouraged.**

Poster Clusters

Similar to special oral sessions, there is the opportunity to organize groups of posters on a particular topic and to have those posters grouped together. Poster clusters require a chairperson to organize the cluster and to prepare an overview poster that synthesizes information from the individual posters to provide larger-scale conclusions or applications of results. The posters should be well-integrated and complementary as a cluster. Including a diversity of perspectives is encouraged. **Proposals for poster clusters must be submitted by the abstract submission deadline of April 23, 2018.** Proposals are to be submitted using a separate form available on the conference website and require the cluster title, the name of the cluster chair(s), a paragraph (<200 words) describing the content and focus of the cluster including the relevance of this topic to Bay-Delta management, as well as a list of poster titles and authors. Each presentation proposed in the poster cluster must have submitted its own abstract by the abstract deadline. Both submissions are required for poster cluster proposals.

Student Awards

Awards will be given for the best student oral and poster presentations during the conference. Please indicate student status on the abstract form. **To qualify for a student award, you must have carried out the presented work while you were a registered student, and you must make the presentation yourself.**

Abstract Requirements and How to Submit

All presenters (oral and poster) must submit an abstract using the online form accessible through the conference website (<http://scienceconf2018.deltacouncil.ca.gov/content/call-abstracts>). There is a 300-word limit on the abstract text. Please fill in all of the blanks on the form, including selection of the appropriate theme or special session, any special projection equipment needs, and your preference for an oral or poster presentation. Depending on the number and content of abstracts submitted, the Program Chairs may move some of the requested oral presentations into the poster session and vice versa. Incomplete or poorly written abstracts and those that are not relevant to Bay-Delta issues will not be accepted.

Abstract content. A complete abstract should include the following four components:

- **Problem statement:** What problem are you trying to solve and why?

- **Approach:** How did you go about solving or making progress on the problem?
- **Results:** What are your main findings?
- **Conclusions/Relevance:** What are the scientific and management implications of your findings, including the relevance of your findings to Bay-Delta management? What insights do your findings provide towards ecosystem sustainability in the near and long-term futures? **Authors are strongly encouraged to include this relevance statement in the abstract.**

Questions?

Questions about the technical program or the abstract submittal process should be directed to the Program Co-Chairs: Josh Israel (jaisrael@usbr.gov), Joe Domagalski (joed@usgs.gov), and Karen Kayfetz (karen.kayfetz@deltacouncil.ca.gov).

Questions on posters or poster clusters should be directed to the Poster Chairs: Sakura Evans (sakura.evans@wildlife.ca.gov) and Judy Drexler (jdrexler@usgs.gov).

Questions about other aspects of the conference should be directed to the Conference Co-Chairs: Ted Sommer (ted.sommer@water.ca.gov) and Alex Parker (aparker@sum.edu).

Questions about the Brown-Nichols Science Award should be directed to the Award Chair: Michelle Shouse (mkshouse@usgs.gov).

ABSTRACT DEADLINE: Monday, April 23 2018

The form for online abstract submittal is located at the following website address:

<http://scienceconf2018.deltacouncil.ca.gov/content/call-abstracts>

Information on the Delta Science Program is available at

<http://www.deltacouncil.ca.gov/science-program>

The Brown-Nichols Science Award

This award was established to recognize the contributions of scientists for their significant research and active involvement in facilitating the use of science for managing the San Francisco Estuary and watershed. The award recipient will be recognized during the plenary session at the 2018 Bay-Delta Science Conference. **The deadline for nominations is June 29, 2018.** Additional information, including nomination requirements can be found at: <http://scienceconf2018.deltacouncil.ca.gov/content/brown-nichols-science-award>.