

## Delta Independent Science Board Teleconference March 17, 2016

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**Thursday March 17, 2016**

**15th Floor Conference Room, Park Tower  
980 Ninth Street, Sacramento, CA**

### 1. Welcome and Declarations (Lund)

Present: Jay Lund; and Brian Atwater, Vince Resh, Joy Zedler, Liz Canuel, Steve Brandt, Tracy Collier, Joe Fernando, John Wiens (via teleconference).

Delta Science Program staff: Lauren Hastings, Rainer Hoenicke, Annie Adelson, Cliff Dahm; and Kelly Souza (via teleconference).

### 2. Delta ISB Chair's Report and Business Matters (Lund)

Lund reported about current activities of the Delta ISB:

- Wiens, Lund and Resh presented the Adaptive Management Review Report to the Delta Stewardship Council (Council) at its February 11, 2016 meeting. The presentation can be viewed [here](#).
- Lund has been having conversations with others about a future workshop that would compare the science organization (management, not ecosystem attributes) in different estuaries across the country.
- There have been many discussions about how to start some of these other reviews, such as monitoring and science integration.

Zedler reported that she is working on a review for *Estuaries and Coasts* (due in July), that sounds similar to the science organization workshop that Lund described. If there is relevant material, she will share it with the Board.

### 3. Delta Lead Scientist Report (Dahm)

Dahm's Lead Scientist report included:

- Upcoming events:
  - The Adaptive Management Steering Committee for Eco-Restore meets on March 22, 2016. Hastings, Hoenicke and Dahm will attend and highlight the Delta ISB's Adaptive Management review report.
  - The Interagency Ecological Program (IEP) Directors meet on March 23, 2016.
  - The Council meets on March 24, 2016.
  - The Delta Science Program and the Coastal and Marine Sciences Institute are hosting an all-day symposium about the [inevitability of longfin and delta smelt extinction](#) on March 29, 2016 at UC Davis.
- Dahm shared the following information at the February 11, 2016 Council meeting:
  - Recent findings from the *San Francisco and Estuary Watershed Science* about [nutrient trends in the Sacramento-San Joaquin basin; a comparison to state and regional water quality policies](#).
  - A summary in American Geophysical Union's *Eos* newsletter, [An Integrated, Holistic Approach to Detecting and Characterizing Cyanobacteria Blooms Could Reduce Human Health Risk and Better Direct Field Resources](#). This is a global effort by NASA, USEPA, NOAA and USGS to do a better job of detecting and communicating where and when harmful algal blooms occur. This could be technology used in the Delta someday.

- 2015 was recorded as the hottest year on record, worldwide and in California.
- Two Bay-Delta Science Conference posters focused on salmonid issues in the Delta.
- At the March 24, 2016 Council meeting, Dahm will share:
  - The selection of the Delta Science Fellows is completed and 10 of the 22 proposals received will be funded. They are nicely linked to the high-impact action items in the Science Action Agenda. Dahm thanked Collier for his help with the review and selection process.
  - The Delta Science Program will fund 3 (possibly 4) of the proposals submitted to the California Department of Fish and Wildlife for the Prop 1 solicitation. The topic areas include early life history of sturgeon, predation pressure on salmonids in the south Delta, and early information on restoration in McCormack-Williamson Tract.
  - A new article by Santos et al. in *Ecological Applications*, Measuring Landscape-scale Spread and Persistence of an Invaded Submerged Plant Community from Airborne Remote Sensing. This article looks at the analysis and technology used for floating leaf-forms and the more problematic submerged forms of aquatic weeds.
  - An update about predation work in the Delta, since there has been interest at the level of the US congress. Recently, Gary Grossman (University of Georgia) gave some well-reasoned [testimony](#) to Congress about his work on predation.

● Cliff's assessment of the Goodwin/Keay Comprehensive Monitoring Assessment and other efforts  
This Comprehensive Monitoring Assessment idea is in the Delta Science Plan and was something presented to the IEP Directors in December 2014. In the Delta Science Plan, the effort is linked to action 4.2.2, Build a Comprehensive Monitoring Strategy for an Integrated Program. Presented to the IEP Directors, the effort was described with a focus on IEP monitoring. Although the IEP Directors expressed an interest in the assessment, emergency drought actions quickly subsumed IEP resources and the idea did not get more traction. Dahm believes that the document deserves some attention and he has reached out to Goodwin about it. Goodwin envisioned this assessment as a multi-year activity, focused on the Delta, with a panel of key scientist and engineers convened to produce a scope.

More recently, and probably in response to a question that Chair Fiorini posed to the Delta Plan Interagency Implementation Committee (DPIIC) during its November 2015 meeting (why is it that other systems have received significantly higher amounts of funding than the Delta?), conversations between Mike Chotkowski (USGS) and Fiorini generated an idea about a workshop that would compare the monitoring and science coordination enterprises of large, well-studied ecosystems across the country (e.g. Puget Sound, Chesapeake Bay, the Great Lakes, Everglades). The Delta Science Program has discussed internally what a workshop like this might entail and Rainer Hoenicke created a document that describes such an effort.

Outside of the Delta Science Program, Ted Sommer (CDWR) and Chair Lund have participated in this conversation with Chotkowski, and produced a document that leans more towards the integration of science with monitoring, so there are many similar conversations happening in multiple venues.

Dahm believes that the workshop about science integration is something very doable for 2016, however both he and Fiorini would like to get commitment from the DPIIC that this is an effort we should do and do well. The May DPIIC meeting will be an opportunity to seek endorsement from the agencies and the Delta ISB should be an engaged party in this process moving forward. Dahm doesn't believe that monitoring will be a focus of this initial workshop.

Collier reminded the group that Goodwin recommended that a "systems meeting" here in the Delta would be a nice continuation of a similar event that was held in and focused on Puget Sound in 2013, "Advancing the role of science in coastal ecosystem recovery."

Lund offered that it might be useful to have this science organization workshop orbit around the same time as the 2016 Bay-Delta Science Conference in November, since a lot of key people will be physically present and paying attention.

Canuel asked for a definition of how the word 'enterprise' is being used and Dahm described this as the process by which science efforts have developed over time, the agencies involved, the complexities that exist, how problems were identified, addressed and funded, how expertise was assembled and how information is communicated.

#### 4. Delta Stewardship Council Chair and Executive Officer's report (Fiorini)

- Fiorini introduced the new DPIIC Coordinator, Jessica Law, who has a very good working knowledge of a number of existing California initiatives. She is currently organizing a timeline for this science integration workshop and plans to solicit ~5 members of the DPIIC to form a planning committee that would describe the intention of the workshop, expected outcomes and how to implement such a workshop. The desire is to have the planning committee assembled before the May 9, 2016 DPIIC meeting with the intent to report out at the fall DPPIC meeting, currently scheduled for November 14, 2016 (the day before the Bay-Delta Science Conference begins).
- Fiorini thanked Wiens for being the voice of the Delta ISB at the February Council meeting and thanked the entire Board for a very useful report about adaptive management in the Delta. He also thanked the Board for their review of the process used to refine and update performance measures. Fiorini reported that the refined performance measures presented to the Council in February were unanimously adopted, with a few minor changes.
- Fiorini shared that Mark Cowin, Director of California Department of Water Resources (CDWR), recently asked if anyone had a list of all the science activities and programs in the Delta, how they fit together, who is responsible and why the work is being done? In response a number of groups have formulated to address these questions. Hastings reported that the IEP Coordinators have formed a small group called "IEP Partnerships" and are working on a component of this called with Annie Adelson and Kelly Souza's help. The Council's Executive Fellow, Ansel Lundberg, is working on identifying funding levels and sources, since that is a component that Fiorini is interested in. Other Delta Science Program staff (Lindsay Correa and Yumiko Henneberry) are answering this question in the context of the Delta Science Plan. Brandt recalls that this is an essential ingredient and something that was relied on in the Great Lakes. Fiorini reported that CDWR has also put together a group to work on this and that DPPIC will serve as the multi-agency venue to vet this through.
- A report from the Delta Agency Science Workgroup, formed in response to the interim science action agenda, is expected in May.

#### 5. Status of other reviews:

- Delta as a Place - The draft that Norgaard produced will be discussed at the April meeting at Lake Natoma Inn. Board members will receive a revision sometime between April 4 and April 12.
- Water Quality – Collier, Canuel, Adelson and Val Connor (GEI Consultants) held a meeting March 10, 2016 and discussed the intent of the review and scope. The contract is in the final stages of being executed. At the April meeting, they may be prepared to discuss the response to comments received on the original prospectus and a revised prospectus. Collier and Canuel still need to formulate the intent and invited members of the water quality panel scheduled for the May Delta ISB meeting.

**Action: Hastings, Collier, Souza, Canuel and Adelson will have a call to discuss the panel.**

- Delta Levees – Atwater reported that the Delta Levees Investment Strategy (DLIS) staff (Dustin Jones) will present an update to the Board in July since the final report from the independent review panel has a target deadline of May 31, 2016. It may make sense to ask Dustin to speak to the Board a bit ahead of time about the general structure of the strategy, to lay the groundwork before an in-depth briefing in July. Lund reiterates that the Delta ISB review of levee science needs to be well-timed, perhaps right after the DLIS review is completed.  
**Action: Lund and Atwater will touch base with Dustin Jones about the possibility of having an “icebreaker” conversation before the July briefing.**
- Water Supply Reliability - Lund reports that he would like the Water Supply Reliability chapter in the *State of Bay Delta Science* to come out before moving forward on the review. There are also discussions in the Delta Science Program about water supply reliability, so the Delta ISB review will need to coordinate with that effort as well. This is one of the review topics where the Delta ISB is wading in gently.
- Integration of Science – There was no additional discussion about the review of Science Integration.
- Monitoring Activities - Invitations for the monitoring panel in April have been sent to Gregg Erickson (IEP), Jon Marshack (California Water Quality Monitoring Council, CWQMC) and Jon Burau (USGS). Sean Hayes (IEP) will also be asked if he wants to participate. Resh asked if there was any background material that could be given to the Board so that the Board is not going into the April panel “cold.” Brandt mentioned a [presentation that Marshack gave to the Council in October 2014](#), as a good starting point. Brandt also mentioned that one aspect he’s keen on hearing about is how the IEP coordinates its monitoring, internally within the IEP, and also externally, with entities such as the CWQMC. What is the mechanism by which the IEP is able to coordinate their efforts with others? Another area of interest is finding out how the Delta ISB’s review can play a role that is useful to the IEP, CWQMC or others. Lund would like the panel members to address the purpose of the monitoring, why it is important, and how it helps improve our scientific understanding of the ecosystem.  
**Action: Hastings will work with the monitoring panel members to find out what type of background material would be beneficial to provide beforehand.**  
**Action: Souza will forward the monitoring panel invitations to Lund, Brandt and Collier.**
- Adaptive Management – Wiens asked the group about the outcome of the February 11, 2016 Council meeting where the Adaptive Management review report was presented. His feeling was that the Delta ISB was clearly recommending that the Council follow-up on recommendation #1 from the review report, about convening a workshop or review panel to address governance of adaptive management in the Delta. His feeling though, was that the Council may have “tossed the ball” back to the Delta ISB. Collier’s perspective, having watched the February 11, 2016 Council meeting, is that there is a bit of conflation going on between the adaptive management workshop or review panel about governance, and the science integration workshop that is developing. Collier suggests that moving forward, we be explicit in our conversations. Hastings reported that the Delta Science Program can only do so many workshops in any given year and it seems like a workshop about Science Integration would take precedent over the workshop called for in recommendation #1. Wiens also asked about the status of the April adaptive management panel. Souza reported that the adaptive management panel members have been invited (Val Connor, Carl Wilcox, David Okita, Les Grober and Campbell Ingram) and can participate that day. Souza added that the invitation to the panel identified a discussion about recommendation #1, as one of the panel expectations. Lund and Wiens felt this was an appropriate way to keep the momentum moving forward.  
**Action: Souza will forward the adaptive management panel invitations to Lund, Brandt and Wiens.**

#### Public Comment

Val Connor (GEI Consultants) pointed out that separating the water quality panel in May from this physical/chemical/biological monitoring panel in April, contributes to one of the inherent monitoring problems in the Delta; not being able to tease out the role of contaminants. This is perpetuated organizationally by not having the regional water boards as part of the Interagency Ecological Program. Connor suggested that staff advise the participants in the May panel, of the April panel (and vice versa) so that they can at least be present since it seems logistically infeasible to have them all be part of the same panel.

#### 6. Meeting planning (Lund)

- April 19, 2016. The major topics of this in-person meeting at the Lake Natoma Inn in Folsom, CA include the post-release adaptive management panel, the overview of monitoring activities panel and a full Board discussion of the Delta as Place draft report.
- May 12 – 13, 2016. A major focus of this two-day, in person meeting is a panel about water quality.
- June 9, 2016. This meeting will be a teleconference.
- July 14 – 15, 2016. A full panel discussion about the Delta Levees Investment Strategy, including findings from the final independent review panel report, will be discussed with the Board. There may also be an item related to integration of science across institutions.
- November 14 or 18, 2016. Stay tuned for the November date. There is currently a conflict between the Delta ISB and DPIIC meetings, both scheduled for November 14. They could perhaps be leveraged.

#### 7. Public comment for items not on the agenda

There were no additional public comments.

#### 8. Meeting adjourned