



# Delta Independent Science Board

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May 20, 2013

To: Delta Stewardship Council  
From: Delta Independent Science Board  
Subject: BDCP Chapter 7 and Section 6 of Chapter 3, drafts of March 2013

## SUMMARY

The Delta Independent Science Board recommends that the Bay Delta Conservation Plan employ the nascent Delta Science Plan as the platform for science, monitoring, and adaptive management.

Science, monitoring, and adaptive management for BDCP need an independent platform from which to serve the public interest in the State's waters and ecological heritage. Mere coordination with other Delta science programs is insufficient for BDCP science to rise above the fray of stakeholder interests and serve the broader long-term interests of the state and of stakeholders.

The Board encourages BDCP to work closely with the Delta Science Program toward the Delta Science Plan's goal of "One Delta, One Science" and encourages the Delta Stewardship Council to help facilitate this outcome.

## BACKGROUND

The Board's recommendation hearkens back to arguments for improving connections between science and policy made in Chapter 8 of "The State of Bay-Delta Science, 2008" and echoes findings of the 2012 National Research Council report, "Sustainable Water and Environmental Management in the California Bay-Delta." The 2012 report identified scientific synthesis and consensus as essential to addressing challenges inherent in the adaptive management of Delta water and ecosystems. Both Interior Secretary Salazar and Governor Brown have publicly assured that science would guide BDCP.

The Board first addressed the implementation structure of BDCP in a memo dated June 12, 2012. The Board concluded that a stand-alone research and monitoring program within BDCP "would be inefficient, detrimental to existing programs, and lacking in the independence needed to build trust in adaptive management." (Appendix A).

The Board has now reviewed the two most recent drafts of BDCP Chapter 7 along with section 6 of Chapter 3. This review was encouraged on January 16, 2013, by Phil Isenberg, Chair of the Delta Stewardship Council.

On February 12, 2013, the Board posted a draft review of the December 2012 administrative draft of Chapter 7. The Board received constructive comments from agencies and the public on this draft both in person during its meeting of February 14 and 15 and in writing during a subsequent comment period. The written responses include a letter dated February 25, 2013 from Mark W. Cowin, Director of the California Department of Water Resources.<sup>1</sup>

This final memo considers the versions of BDCP Chapters 3.6 and 7 most recently posted for public review (March 14 and March 27, respectively). We recognize the material posted has not necessarily been reviewed and approved by key agencies. We understand that agencies are working with the Delta Science Program to design and implement an integrated science and management plan for the Delta. Such integration is vital to the effective and timely management of the Delta for the coequal goals advocated by state and federal legislation. We look forward to those efforts being incorporated into the BDCP.

The Board remains very concerned that the BDCP implementation structure proposed in Chapter 7 will frustrate the common pursuit, critical thinking, and scientific synthesis needed to address the complex and urgent task of implementing the coequal goals for the Delta.

The Board recognizes that BDCP alone cannot undo the current fragmentation of Delta science that has evolved through the practice of many separate entities. The Board applauds the collaborative science efforts underway and BDCP's participation to date in the development of a Delta Science Plan. But, returning to Chapter 7, the Board doubts that adding a large, separate, and effectively sovereign BDCP science program will yield improvements in water reliability while also meeting the related habitat-restoration objectives.

## **ELABORATION**

While the Delta Science Plan is very much in the process of being developed, the Board expects the following elaborations of its recommendation to be in keeping with the Plan.

### **1. Integrate BDCP's science and monitoring into the Delta Science Plan.**

The Delta Plan requires the Delta Science Program to develop an integrated Delta Science Plan by the end of 2013. While the structure of this science plan is still under development, the Board fully expects the science plan to require leadership by the Delta Stewardship Council, integration of state and federal Delta science activities, potential additional state legislation, and new pacts between state and federal agencies. The need for such integration was a major conclusion of the 2012 National Research Council report, "Sustainable Water and Environmental Management in the California Bay-Delta."

The Board accordingly encourages the BDCP to frame its core scientific efforts as elements of the

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emerging Delta Science Plan. The Board expects that such integrated science would help BDCP meet its own environmental goals and provide more effective scientific guidance for Delta management and policy overall.

## **2. Structure science and monitoring for independence from short-term interests.**

Chapter 7 states that science in support of BDCP will be undertaken in a manner that ensures independence (p. 7-4, lines 28-33). Yet the Chapter also states that the Science Manager will be chosen by and report to a Program Manager, who in turn is chosen by and reports to the Authorized Entities Group, which is expected to include the U.S. Bureau of Reclamation, the California Department of Water Resources, and water contractors. We do not see how this chain of command will promote science that is independent of stakeholders.

The next draft of Chapter 7 should give science and monitoring for BDCP more independence from interest group politics and pressures. Perhaps BDCP's science efforts can be integrated so well with the Delta Science Plan that BDCP would need only a Science Advisor, not a Science Manager. Alternatively, the BDCP Science Manager could be chosen by and ultimately be responsible to an independent scientific body, though this might imply less integration of Delta science activities overall. The Board highly recommends that the position description for the Science Manager should stress a deep understanding of and commitment to science.

## **3. Rethink the rules for the Adaptive Management Team.**

The Board finds that the Adaptive Management Team (AMT), operating as proposed in the March draft of Chapter 7, is likely to impede the use of best available science in management decisions.

The draft states that the AMT will operate by consensus (unanimity) and that when consensus cannot be reached, decision authority moves to the Authorized Entity Group (AEG) and the Permit Oversight Group (POG). However, complex scientific issues rarely lead scientists to the same management conclusion. Scientific disagreement contains information on scientific uncertainty that should be factored into management decisions. Split loyalties of members in the AMT, however, could compound this problem by confusing interest group differences with scientific uncertainty.

The draft does not appear to require that science guide such decisions, in contrast with Governor Brown's and Secretary Salazar's public statements.

## **4. Differentiate and elaborate the structure of the science-management interfaces.**

Chapter 3 specifies numerous environmental goals, conservation measures, and an adaptive management plan whose implementation structure needs to be made more explicit in Chapter 7.

Chapter 7 should lay out how different types of water and habitat decisions and their scientific support will be orchestrated. The science-management interfaces are likely to differ for decisions involving different problems, e.g. species, different parts of the Delta, and different water and land issues. Trade-offs between species enhancement goals within and between habitat restoration areas will at times have

to occur, but no mention is made as to how science will be brought to and incorporated in such decisions.

Decadal plans for habitat restoration, for instance, require a different management structure than daily water-export decisions. The issues of monitoring the Delta ecosystem overall differ from monitoring performance compliance at specific restoration sites. Some adaptive management decisions might need to be made on a weekly basis, others annually, some for the Delta as a whole and some for particular areas or restoration sites. Decisions made for one restoration site will affect other restoration efforts, positively or negatively. Trade-offs between habitat restoration goals within and between sites may have to be made. The Board recommends greater clarity on how these various roles of science and management for BDCP will be coordinated with other Delta science and management processes.

#### **Appendix A. Key Portion of June 12, 2012 DISB Memo**

The board stated its concern with respect to the role of science in a memo of June 12, 2012 to Jerry Meral and Dale Hoffman-Floerke based on the February 29, 2012 administrative draft of BDCP Chapters 3 and 7. The board wrote then that:

The BDCP process provides an unprecedented opportunity for building collaboration, consensus, and trust in Delta science. We encourage principals in BDCP to work toward these outcomes by improving on the draft Plan's evolving structure for scientific monitoring and research.

BDCP entails vast amounts of new research and monitoring in the Delta. How these efforts would be managed is outlined in chapters 3 and 7 of the draft Plan. The draft highlights the capabilities of two existing Delta science programs – the Interagency Ecological Program (IEP) and the Delta Science Program (DSP). But the draft goes on to imply that most of the new research and monitoring would be done by a new BDCP science program “in coordination” with existing Delta science efforts (chapter excerpts are attached below).

We advise against this stand-alone approach. Coordination is not enough to build scientific consensus for integrated action. A new parallel research and monitoring program would be inefficient, detrimental to existing programs, and lacking in the independence needed to build trust in adaptive management under BDCP.

We previously voiced these concerns on May 3, 2012, when we met with two BDCP representatives, Chris Earle of ICF International and Laura King Moon of the Department of Water Resources. They told us that the final structure of the research and monitoring plan remained undecided.

That structure will be fundamental to the conservation measures for habitats and natural communities under BDCP. Delta science needs coordinated institutional foresight, collaboration in research and monitoring, integration of the findings, consensus on implementation, and public trust in this process and its practitioners. Human behavior and organization will be key to building scientific and public understanding, as well as support, for adaptive management in the Delta.

The recent National Research Council report identifies scientific synthesis and consensus as essential to addressing challenges inherent in the adaptive management of Delta water and

ecosystems ([http://www.nap.edu/catalog.php?record\\_id=13394](http://www.nap.edu/catalog.php?record_id=13394)). We encourage BDCP to strengthen Delta science as a truly integrated enterprise.

This recommendation dovetails with an ongoing concern about the state of Delta science. Writing to the Delta Stewardship Council on March 14, 2012, we reported that “Delta science programs, particularly those in state agencies, have difficulty retaining their best scientists, hiring new scientists, and providing support for science.” We noted that state agencies increasingly rely on science and engineering consultants, instead of expertise in-house. We advised helping state agencies rebuild the scientific capacity and institutional memory they need to develop and apply best available science for adaptive management. Such rebuilding could become a lasting and positive effect of a BDCP process that integrates with the future Delta Science Plan that we expect will be prepared as a part of the Delta Plan.

cc: John Laird, Secretary, California Natural Resources Agency  
Jerry Meral, Deputy Secretary, California Natural Resources Agency  
Mark Cowin, Director, California Department of Water Resources  
Dale Hoffman-Floerke, Deputy Director, Department of Water Resources  
Chuck Bonham, Director, California Department of Fish and Wildlife  
Carl Wilcox, Bay-Delta Regional Manager, California Department of Fish and Wildlife  
Mike Chotkowski, United States Fish and Wildlife Service  
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Congressman John Garamendi Jeannie Klever  
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Honorable Connie Conway Dillon Gibbons  
Honorable Susan Talamantes Eggman Christian Burkin  
Honorable Paul Fong Howard Quan  
Honorable Mike Gatto Katerina Robinson  
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Steve McCarthy, Republic Consultant	
Honorable Alex Padilla	Megan Moret
Honorable Fran Pavley	Dennis O'Connor
Honorable William Monning	Ryan Guillen
Honorable Darrell Steinberg	Kip Lipper
Honorable Lois Wolk	Mindy Simmons
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