

**Bay Delta Conservation Plan (BDCP)  
Steering Committee (SC) Meeting**  
December 3, 2009, 9:00 a.m. to 12:00 p.m.  
Resources Agency Bldg., Room 1131  
Sacramento, CA

Draft Meeting Notes

**Associated documents/handouts:**

- *Agenda*
- *Draft BDCP SC Meeting Notes August 13, 2009*
- *Draft BDCP SC Meeting Notes August 27, 2009*
- *Draft BDCP SC Meeting Notes September 10, 2009*
- *Draft BDCP SC Meeting Notes September 17, 2009*
- *Draft BDCP Chapter 1 Introduction*
- *Draft Figure 1.1 BDCP Planning Area Location*
- *Draft Table 1.2 BDCP Proposed Covered Species and Critical Habitat*
- *Draft Steering Committee Meeting Agendas*

**Action Items and Key Decisions**

- Approved *Draft BDCP SC Meeting Notes August 13, 2009*
- Approved *Draft BDCP SC Meeting Notes August 27, 2009*
- Approved *Draft BDCP SC Meeting Notes September 10, 2009*
- Approved *Draft BDCP SC Meeting Notes September 17, 2009*

**Updates**

- The Association of California Water Agencies (ACWA) is hosting a conference this week. Several BDCP SC members are leading a panel discussion on the BDCP.
- Public Policy Institute of California is releasing its “California Water Myths” paper and will be hosting a related workshop on December 8, 2009.
- DWR announced the first water allocation for the season for the State Water Project. It was at 5 percent. Allocations typically rise throughout the season, and some wet weather is anticipated in the coming days.
- Westlands stated that the water contractors have been in conversations with members of the scientific community, including members of the Interagency Ecological Program (IEP) and the CALFED Independent Science Board, regarding the idea of establishing a Science Center for the Delta. Westlands will communicate further on this topic with SC members from DWR and The Bay Institute.
- DWR’s application to the General Services Administration for acquisition of Prospect Island from the Bureau of Reclamation has been accepted. Escrow will close later this month. A Notice of Exemption will be issued on the acquisition of the property in the next several days.
- DWR met with landowners from Ryer Island earlier this week to discuss potential habitat acquisition sites.
- NMFS has chosen Christopher Yates to replace Russ Strach in the position of Assistant Regional Administrator for Protected Resources. Mr. Yates will work out of the field office in Long Beach. Maria Rea will continue to represent NMFS at the SC.

## Meeting Notes

SC meeting notes for August 13 and 27, 2009 and September 10 and 17, 2009 were approved by SC. All SC meeting notes from October-November 2009 will be ready for SC review at the December 17 meeting.

## BDCP Process and Schedule

The *Draft Steering Committee Meeting Agendas* handout was discussed. There is one more SC meeting scheduled for December, and four tentatively scheduled for January 2010. A key focus of January SC meetings will be to answer remaining questions regarding the BDCP conservation strategy to allow for the full biological effects analysis to begin in February 2010. The goal is to have a public draft of the entire document completed by fall of 2010.

The timing of completion of a proposed logic chain process for refinement of the BDCP biological goals and objectives was discussed. The logic chain concept will be addressed at SC in January under item #4 *Goals, Objectives, Metrics, and Adaptive Management* on the handout *Draft Steering Committee Meeting Agendas*.

## Public Outreach/Engagement

Karla Nemeth reported on ongoing efforts to address the suite of Delta issues that have been raised during public workshops and meetings with local agencies. The outreach subgroup is having scheduling challenges, but will meet again next week. Ms. Nemeth and Keith Coolidge are working on methods for BDCP interface with other planning efforts in the Delta and the new Delta Stewardship Council. The subgroup will also be doing more outreach to interests upstream of the Delta to increase public awareness. Meetings are being scheduled with rural counties and the Northern California Water Association (NCWA) for that purpose.

There was discussion about exploring additional opportunities for collaboration with various interests or creating new forums to discuss issues raised by the public. The subgroup will develop recommendations for this effort and bring them to the SC for review.

## EIR Update

Gwen Buchholz presented an update on the BDCP EIR/EIS development process. The scoping report is almost ready; over 2,700 comments were received. These comments have been divided into over 30 categories. Tables of comments are being provided to all the teams involved in preparation the BDCP, engineering and design-related work, and the development of the EIR/EIS to ensure that the comments are considered during development of the subsequent products. The scoping report is being reviewed by the EIR/EIS lead agencies and it is anticipated that these comments will be posted on the website at the end of December or beginning of January.

Draft screening criteria for EIR/EIS alternatives development are being reviewed by lead agency legal team to ensure that they reflect the requirements of the new Delta Reform Act. Alternatives should be developed by the end of next month. The EIR/EIS team is continuing to coordinate with the BDCP effects analysis methodology development to ensure consistency between the BDCP and the EIR/EIS teams.

It was asked if the final Purpose and Need statement is ready. The lead agency legal team will be reviewing the draft Purpose and Need statement as part of the process of ensuring consistency with the state water legislation. At this time, it is believed that the language in the current version of the Purpose and Need statement will not need to be changed.

## **Presentation: Update on BDCP Near-Term and Early Long-Term Water Operations Physical Modeling Results**

Armin Munevar presented updated model results with the addition of hydrodynamics, including preliminary temperature results for the Sacramento River. It was asked if the assumption could be made that the lowest range of bypass flows in today's graphical presentation would not have a biological impact. In response, it was clarified that this is one of the unknowns that will be addressed in the ongoing Mini Effects Analysis. The Mini Effects Analysis results will inform the modeling process as to recommendations for the potential shifts in operational ranges to address biological outcomes.

The potential effects of proposed physical habitat restoration and long term water operations on tidal hydrodynamics have been analyzed. Habitat restoration appears to have beneficial effects on flows in Sutter and Miner Sloughs by reducing the frequency of bi-directional flow during lower flow periods. Results for the Sacramento River and Steamboat Slough indicate virtually no change in bidirectional flow frequency from the existing conditions.

Lower flow conditions in the Sacramento River could be addressed by a cycle of export pumping operations at the proposed north Delta facilities timed with the tides. A fish screen instantaneous sweeping velocity criteria of greater than 0.4 feet per second immediately downstream of the intake would require that the pumps cease operation for a pre-determined length of time (e.g., 15 minutes) when velocities drop below this threshold. There was discussion about the mechanical stress to pump facilities from turning pumps off and on frequently; the engineers are taking this issue into account.

Model results for proposed long term operations were presented on water quality and salinity changes. The north Delta (to Rio Vista), San Joaquin River, and upper part of Old River show virtually no change in salinity, but the Old and Middle River corridor in the south Delta could experience slightly higher salinity in the spring as less Sacramento River water would be entering this area, and lower salinity in the summer and early fall as less tidal water enters the south Delta (due to a reduction of water exports in the south Delta). There was discussion regarding the increases in salinity in the late winter and early spring at Banks and Jones.

Particle tracking analysis is being used to approximate larval fish and planktonic transport; this analysis will be completed next week and provided to the effects analysis fisheries technical subgroups. River temperature analyses have been done for the Sacramento River. The reservoir cold water pool volume data used in this analysis has been based upon historical hydrology, but the next iteration will include results with predicted climate change effects. Proposed operations allow for greater cold water pool at Shasta Dam in summer than the RPA operations or the pre-RPA operations because the proposed project allows more integrated management between in-Delta and upstream facilities. Under current operations, Delta area water management is determined by upstream management. Another discussion followed about climate change as latest projections have shown greater temperature increases than previously predicted. Air temperature increases may make it more difficult to meet cold water temperature targets. Data for the full range of scenarios evaluated will be made available to the Mini Effects analysis subgroups. A request was made for the analyses results to be summarized and presented in lay-fashion at meetings held by the public outreach working group.

### **Public Comment:**

Dan Kelly (Sacramento County) asked if the models were run under the assumption that the Delta Cross Channel Gates would be closed all the time. Mr. Munevar responded that model runs were consistent with the current Biological Opinion which has the Cross Channel Gates closed from December to June with some potential for opening in November.

Mr. Kelly then asked if there would be a change of Delta Cross Channel Gate operations as a result of moving the intakes to the north Delta. Mr. Munevar responded that gate operations would be consistent with the current Biological Opinion and therefore consistent with this year's operations.

Ann Spaulding (City of Antioch) asked if the presentation slide of changes in salinity shows any absolute values of salinity that could relate to drinking water quality. Mr. Munevar responded that these results are not that detailed and that they show the changes in salinity and not predicted absolute values of salinity. These results do not predict whether water quality standards would be met.

### **Presentation: All Tunnel Alignment & Option Comparisons**

Mike Cherry (Delta Habitat Conservation & Conveyance Program [DHCCP] team) gave a presentation about the "All-Tunnel Option" for isolated conveyance with refreshers on east and west side Delta conveyance options. The All-Tunnel Option would include the same north Delta intakes as the east side conveyance option. It would consist of approximately 35 miles of two parallel tunnels and 8 miles of a single bore tunnel. The top of the tunnels would be approximately 140 feet below surface, and the two tunnels would be 75 feet apart. Each tunnel boring machine used to bore and construct the tunnels can move about 5 miles in 4 years and multiple machines would be needed to achieve construction schedule.

A question was raised about whether there are other tunnels in the world of comparable size and length as the proposed all-tunnel option. It was not immediately known; the DHCCP team will look into this. Additionally, the longest tunnels worldwide have been built for transportation, not water conveyance. A question was raised about tunneling through peat soils. The peat soils are generally no deeper than 50 feet down, so the tunnels would not be constructed in peat soil.

The on-the-ground footprint of the all-tunnel option is substantially smaller than that of the east and west Delta canal options. Annual energy costs of the all-tunnel option would be lower than the annual energy costs of the canal options during average and dry years, but higher in wet years. A request was made to compare current actual annual energy costs of water conveyance to the predicted annual energy costs of these three options.

Other costs were discussed, such as those related to construction power requirements, truck hours, operations, and maintenance. The construction schedule would be the same for all three options (estimated to be 6.25 years). Construction risks are higher for the all-tunnel option, especially regarding tunnel boring machine (TBM) procurement. Pump procurement could affect the construction schedule for all three options.

David Mitchell discussed land acquisition costs comparing the canals and all-tunnel option. Paul Cylinder gave a rough estimate of costs of land acquisition for mitigation of biological impacts for each conveyance option. Mike Cherry provided summary comparisons of costs for the three conveyance options. A point was made that the timeframe of land acquisition is something for the SC to consider and discuss. There will be further discussion of conveyance options by the SC in January 2010.

### **Public Comment:**

Osha Meserve (Reclamation District 999 and Stone Lakes NWR) requested that a comparison of potential seepage loss between the two canal options and the all-tunnel option be added to future analyses of these options.

David Kelly (Sacramento County) asked about the footprint acreage for the east and west alignments - did the analysis consider the parcels that the canal would cut through, and determine whether or not the state would have to buy remainder parcels created by the canal's path? David Mitchell responded no, that parcels were clipped to estimate acreage for this preliminary cost estimate. An assumption was made that remainder acreage could be leased out or sold again.

### **Presentation: Southwest Fisheries Science Center**

Maria Rea (NMFS) gave the introduction for two presentations. Ms. Rea announced that the NMFS Public Draft Recovery Plan for steelhead and Chinook salmon (winter-run and spring-run) is available for public review, and

written comments are due February 3, 2010. Ms Rea stated that the draft recovery plan serves as a guidance document, not a regulatory document, and that habitat conservation plans do not have to follow the recovery plan specifics.

Dr. Tommy Williams of the NMFS Santa Cruz Science Center gave a presentation on environmental conditions and the adaptive abilities of salmon. As conditions change (e.g., water temperature, food availability), salmon track changes in the environment and adjust their activities. Diversity (e.g., temporal, spatial) within and among populations is what allows for this tracking of changing conditions in the environment. Constraints such as urbanization and intensive land management practices can influence the ability of salmonid populations to track changes in environmental conditions. Recovery plans should include restoration of variability in systems to allow for a range of conditions for salmon to inhabit and adapt.

### **Presentation: Salmon and Steelhead Recovery Planning in the Central Valley Recovery Domain**

Howard Brown (NMFS) discussed the development of NMFS's Central Valley steelhead and salmon recovery plan. The technical recovery team was convened in 2001 and produced a number of publications to be used as guidance documents to build the structure of the recovery plan. In 2007, they put together a draft plan for co-managing agencies and the State to review and received several thousand comments. They spent a year reviewing those comments and making changes to the plan, they then released a public draft in October 2009. As was stated, public comments are being accepted until February 3<sup>rd</sup>.

Recovery plans provide a road map for species recovery. They should contain objectives and measurable criteria for delisting a species. There are ten listed Evolutionary Significant Units and Distinct Population Segments of salmon and steelhead in California. There are four Recovery Domains, one of which is the Central Valley. Recovery must address the entire natural ecosystem – freshwater, estuarine, and marine environments. The recovery team developed a system-wide evaluation of threats and constraints on the fish, prioritized different populations, screened them through this threats matrix to identify the highest ranking threats, and then prioritized the recovery actions. The recovery strategy is a two-pronged approach: 1) secure the few existing populations and their habitat; and 2) reintroduce fish to their historical habitats and expand their range to increase resiliency over time. In the Delta, the greatest threats identified include: impaired water quality; a loss of intertidal wetlands, floodplains, and riparian corridors; predation by non-native fish; impaired flow regimes during migration periods; levee maintenance actions that restrict natural river processes and habitat development and maintenance, and entrainment at unscreened diversions. Recovery actions include: fish screen prioritization, development of alternative water conveyance operations and systems that ensure multiple suitable salmonid rearing conditions and habitats; large scale habitat restoration of tidal marsh and floodplain; use of harvest management techniques to reduce predation; increase in the flood frequency of the Yolo Bypass; and establishment of new flow standards to promote juvenile migration and survival.

A request was made for a follow-up presentation and discussion with a smaller group of SC members to go over aspects of the recovery plan. The significance of predation was discussed. There are diverse opinions on its importance. NMFS feels that predation is a significant stressor. There was discussion regarding ocean harvest regulations that were put in place after the winter-run Chinook salmon was listed and whether regulations have been effective at reducing ocean harvest. It was pointed out that all of these issues need to be examined in greater detail. NMFS is reinitiating their consultation on the subject of ocean fisheries to ensure that updated science is included.

### **Public Comment:**

Paul Gilbert-Snyder (East Bay Municipal Utility District) asks if the presentation "Southwest Fisheries Science Center" seems to caution against engineering of the Delta, that this would make it too constrained. This is noted as a comment.

### **Presentation: 2nd Draft Chapter 8 Implementation Costs**

David Mitchell presented an update on the cost and funding chapter of the BDCP. Mr. Mitchell discussed new cost information included in this draft of the chapter, land value assumptions, tidal habitat cost estimations, habitat reserve management costs, and some other stressors costs. Cost estimates still to come include conveyance facilities, Fremont Weir/Yolo Bypass improvements, terrestrial habitat conservation measures, west Delta ROA restoration, other stressors conservation measures 1, 2, 5 and 8, the monitoring and research program, the adaptive management program, and changed circumstances responses.

### **Draft Introduction (Chapter 1)**

Chapter has been posted for review.

### **Attendees**

#### *Management and Representatives*

Karen Scarborough (Chair, The Natural Resources Agency)  
Marc Ebbin (DWR, The Natural Resources Agency)  
Laura King Moon (State Water Contractors)  
Karla Nemeth (The Natural Resources Agency)  
Keith Coolidge (California Bay-Delta Authority)  
Jerry Johns (DWR)  
Cindy Tejada (USACE)  
Jason Peltier (Westlands)  
Ann Hayden (EDF)  
Kim Delfino (Defenders of Wildlife)  
Greg Gartrell (Contra Costa Water)  
Anthony Saracino (The Nature Conservancy)  
Carl Wilcox (DFG)  
Patti Idlof (USBR)  
Chris Scheuring (CA Farm Bureau)  
Dan Castleberry (FWS)  
Maria Rea (NMFS)  
Paul Cylinder (SAIC)

#### *On phone*

Steve Ottemoeller (Friant)  
Melinda Terry (North Delta Water Authority)  
Cindy Kao (Santa Clara Valley)  
Randall Neudeck (Metropolitan Water District)

#### *Other attendees*

See sign-in sheets