

Bay Delta Conservation Plan (BDCP)

Steering Committee (SC) Meeting

January 29, 2010, 9:00 a.m. to 3:00 p.m.
California Farm Bureau Federation, Room #120
2300 River Plaza Ave, Sacramento, CA

Draft Meeting Notes

Associated documents/handouts:

- *Agenda*
- *Aquatic Conservation Measures Proposed for Effects Analysis under Bay Delta Conservation Plan – Draft Introduction*
- *SAIC Recommended Revisions to the Habitat Restoration and Other Stressors Conservation Measures for Use in Conducting the Effects Analysis*
- *SAIC Consultant Team Recommendations for Long Term Operations – Draft C*
- *SAIC Proposal to Steering Committee for Assessing Footprint Effects of Fremont Weir Modifications on Non-Tidal Biological Resources*
- *North Delta Intake Structures Locations – Revision 2 with revised graphics*
- *Separate Analyses (Additional conservation concepts that will be analyzed separately from the BDCP Effects Analysis)*

Action Items and Key Decisions

- SAIC to complete Mini-Effects Results Summary Tables and distribute to Steering Committee by February 5
- SAIC to complete Mini-Effects Results Detailed Tables and distribute to Steering Committee by February 12
- General agreement from Steering Committee (with dissent noted from the North Delta Water Agency) to include the draft Long-Term Operations Criteria, as modified as a result of the discussion among the Steering Committee, in the full biological effects analysis for BDCP to be conducted by SAIC consultant team
- SAIC to prepare Long-Term Operations Criteria Table – single table of Steering Committee approved operations for evaluation – by February 8
- An additional Modeling-for-Modelers Meeting to be scheduled to address climate change, sea level rise, and effects of proposed operations on cold-water-pool storage
- General agreement from Steering Committee to include draft Habitat Restoration Conservation Measures, as modified as a result of the discussion among the Steering Committee, in the full biological effects analysis for BDCP to be conducted by SAIC consultant team
- General agreement from Steering Committee to include draft Other Stressors Conservation Measures, as modified as a result of the discussion among the Steering Committee, in the full biological effects analysis for BDCP to be conducted by SAIC consultant team

- SAIC to revise handouts to reflect changes approved during the Steering Committee meeting
- Mirant and SAIC to develop conservation measures for Mirant power plant operations
- Meeting to be arranged to discuss possible future evaluations of rejected Other Stressor Conservation Measures that are currently indentified as “important related actions”
- PREs to prepare description of next steps in the process to develop near-term operations criteria
- Working session to be arranged on approach to designing proposed Fremont Weir and Yolo Bypass modifications
- SAIC to conduct an additional briefing on tidal habitat restoration
- SAIC to develop a work plan to assess the effects of levee failure and sea level rise on restored Tidal Marsh habitat
- DWR to confirm that the modeling done for BDCP is the same as that done for the DWR Water Delivery Reliability Report
- General agreement from Steering Committee to include draft Sacramento River intake and fish screen locations, as identified in today’s handout, in the full biological effects analysis for BDCP to be conducted by SAIC consultant team
- Paper/presentation to be developed on conveyance and intake sizing with analysis, rationale, and approaches considered
- DHCCP and SAIC to follow-up on Separate Analyses (as identified in handout distributed to the Steering Committee) agreed to by Steering Committee: intake locations; use of alternative pathways to avoid fish exposure to intakes; Isolated Old River Project; and San Joaquin River inflows
- PREs and SAIC to check analytical range on North Delta-Hood bypass flows for sufficient variability
- General agreement from Steering Committee to evaluate Fremont Weir modifications as described in today’s handout in the full biological effects analysis for BDCP to be conducted by SAIC consultant team

Updates

- DWR’s biennial water delivery reliability report is available to the public
- A forum was held by the League of Women Voters on January 23rd in Antioch to discuss the future of the Delta; CCWD commended Karla Nemeth and Kari Fisher on their good work at the forum.

Process and Schedule

The Steering Committee will meet three times in February (4th, 11th, and 25th). The February 4, 2010 meeting will cover two main agenda items 1) terrestrial resources conservation measures and 2) a presentation on conveyance options. It may be necessary for the Steering Committee to occasionally meet on a weekly basis during the next few months to adequately address the range of upcoming issues.

Public Outreach

The Public Outreach Workgroup has developed a draft proposal for further engaging local stakeholders in the issues being considered by the BDCP Steering Committee, particularly in the development of specific conservation measures and implementation approaches. The workgroup plans to present a draft proposal to the Steering Committee on February 4.

Presentation: Summary of Results of the BDCP Mini-Effects Analysis*

Chuck Hanson gave an overview of the results and issues raised in the Mini-Effects Analysis. The purpose of the Mini-Effects Analysis is to inform decisions about the BDCP Conservation Strategy water operations criteria. The analysis considered the potential beneficial and adverse effects of draft BDCP water operations criteria and related draft conservation measures on certain BDCP covered fish species. The process of devising and conducting the Mini-Effects Analysis, as well as the information generated from the analysis, will help inform the Full Effects Analysis for BDCP.

Specific issues were raised by the Steering Committee. For instance, the Steering Committee discussed the issue of increased residence time (i.e., water remaining in the delta for longer periods) in the south Delta that may result from a decrease in the export of water from the south Delta. Chuck Hansen noted that the potential effects on productivity, food web, and fish species of this increased residence time require further study. The Mini-Effects Analysis has produced information that should further inform refinements to draft operational criteria including: Sacramento River and Hood Bypass flows; the Yolo Bypass flow relationship with Sacramento River flow; upstream storage and water temperature, Fall X2 position, and south Delta exports.

The Mini-Effects Analysis subgroups are reviewing the documents they have produced and are creating detailed tables and summary tables for the Steering Committee. The summary tables will be ready for the Steering Committee members next week, and the more detailed tables will be ready the following week. It was expressed that the Mini-Effects Analysis produced the type of information expected, including information that highlights those issues that require further attention or that indicates the need for certain refinements to the proposed water operations parameters that will be evaluated in the Full Effects Analysis. The Full Effects Analysis will be set to begin with Steering Committee general agreement on draft operational criteria presented at today's meeting. The Full Effects Analysis will inform the Steering Committee as to whether changes to the conservation strategy or additional analysis are necessary.

Public Comment:

Philip Pogledich (Yolo County, Office of County Counsel) inquired about whether revisions to proposed Fremont Weir operations had been incorporated into the documents to be presented to the Steering Committee later in the meeting. Mr. Hanson responded

* Powerpoint presentation available at BDCP website.

that such revisions had been made and that they are reflected in the revisions to the early long term and near term operations criteria to be discussed.

Discussion: Aquatic Conservation Measures Proposed for Effects Analysis under Bay Delta Conservation Plan

Richard Roos-Collins presented the *Aquatic Conservation Measures Proposed for Effects Analysis under Bay Delta Conservation Plan – Draft Introduction* handout. This document makes four points: 1) the conservation measures before the Steering Committee, if approved, are approved for the purpose of going forward with the Full Effects Analysis; 2) the measures reflect revisions approved by Steering Committee in July and August 2009 in the working draft of Chapter 3; 3) these conservation measures will be revised in 2010 as the BDCP is further developed; and 4) the conservation measures as described in this document are only part of the BDCP, and they are accompanied by goals, objectives, and other essential elements. Discussion followed regarding proposed changes to the text. *Draft Introduction* document was approved by SC with several changes and additions to text.

Public Comment:

Bruce Houdesheldt (Northern California Water Association) suggested adding specificity to the last line of paragraph 2, page 1 by clarifying that public input was received in “Fall 2009” as opposed to “last fall.” The Steering Committee agreed to the change.

Discussion: SAIC Consultant Team Recommendations for Long Term Operations

Paul Cylinder presented an overview of the *SAIC Consultant Team Recommendations for Long Term Operations – Draft C* handout. Chuck Hanson (present at meeting) and Armin Munevar (in attendance by phone) also participated in the presentation. The handout is organized into four sections that reflect major aspects of water operations: 1) Sacramento River Hood Bypass Operations, 2) Yolo Bypass Seasonal Floodplain Inundation, 3) Delta Outflow and X2 Location, and 4) South Delta Long-term Water Operations. The Mini-Effects Analysis raised several issues regarding these operational elements, and produced information suggesting the need for certain modifications to operational criteria.

The proposed Sacramento River Hood Bypass Operations criteria in today’s handout were revised from the July 2009 version of the long-term operations in Chapter 3. Chuck Hanson discussed how biological implications identified in the Mini-Effects Analysis informed changes in the proposed operations and analytical range. For example, one of the issues raised by the Mini-Effects Analysis regarding Sacramento River flow was “pulse flows” to support transport of salmon and, on the basis of the analysis, potential modifications were recommended. The resulting proposed operations and analytical range presented in the Long Term Operations handout incorporate proposed “pulse flow” criteria for modeling purposes that will be analyzed in the Full Effects Analysis; the results of which may then be used to further refine the proposed operations and adaptive range. A point was made that the proposed operations column has been approved for

purposes of analysis only and is not the Steering Committee's final approved BDCP proposed operations. It is expected that the Full Effects Analysis will provide information sufficient to identify operating parameters for initial water operations and a range for the adaptive management of operations.

The two recommended changes to the Fremont Weir and Yolo Bypass Seasonal Floodplain Inundation section are: 1) proposed operations that allow for a more natural floodplain inundation; and 2) an extension of the period that allows fish passage out of the Yolo Bypass into the Sacramento River by the addition of a smaller opening and operable gate at 11.5-foot elevation to allow for improved fish passage (in addition to the larger opening and operable gates at 17.5-foot elevation for bypass inundation). Discussion followed regarding flood easements on agricultural land and ways to minimize potential water operations conflicts with existing land uses in the Yolo Bypass.

A question was raised about whether there was an analysis of the effects of flow on fish migration at the Knight's Landing Ridge Cut when it receives the Colusa Basin drainage flows and feeds into the Yolo Bypass. Some have expressed concern that migrating salmon might move into the Colusa drain. Mr. Hanson responded that it was acknowledged that this potential adverse effect on salmon and other fish species needs to be analyzed in the Full Effects Analysis, and that it was not analyzed in the Mini-Effects Analysis.

The proposed change to the Delta Outflow and X2 Location section would affect the Range B operational criteria; Range A and Proposed Operations criteria would remain unchanged. There was discussion regarding effects of outflow and X2 criteria on reservoir storage and the importance of maintaining sufficient cold water pool storage in upstream reservoirs for survival of incubating salmon eggs and the potential effect of maintaining reservoir cold water pools on Delta outflow and X2 location in the spring and fall. Related topics covered during the discussion included the need for south Delta storage enhancements and the possible effects that climate change could have on cold water pool storage. It was pointed out that climate change effects are built into the Full Effects Analysis and will be examined.

It was suggested that the South Delta Long Term Water Operations Analytical Range B criteria be expanded for purpose of analysis in the Full Effects Analysis and that the biological rationale for this change be included in the revisions to this handout. This suggestion did not come from results of the Mini-Effects Analysis; rather, it came from a biostatistician (Dr. Deriso) who has analyzed Old and Middle River reverse flows and fish salvage. NMFS offered their opinion that including this change in operational criteria in Analytical Range B would not result in greater benefits to salmonids, but NMFS agreed to its inclusion for analytical purposes.

NMFS reiterated its position that the proposed range of operations for the San Joaquin River under the proposed South Delta Long Term Water Operations criteria does not encompass the criteria in the current Biological Opinion. NMFS stated that it is willing to entertain this range for analysis of long term operations, but at this point the proposal does not contain what NMFS believes is the minimum operational criteria, as identified in the current Biological Opinion as necessary to avoid jeopardy.

The Farm Bureau indicated that it had sent a letter on Thursday, January 28, 2010, to Steering Committee members regarding items for which the Farm Bureau requests additional information and other items that will need to be addressed during the planning process. It was stated that the NGO's also sent a letter to Steering Committee members during the previous week.

The Chair asked the Steering Committee whether the Full Effects Analysis should be conducted, consistent with the approach set out in the *SAIC Consultant Team Recommendations for Long Term Operations – Draft C* handout (with modifications agreed to by Steering Committee members at this meeting). The Steering Committee generally agreed that the Full Effects Analysis should be commenced, bearing in mind that this is an iterative process in which the Full Effects Analysis informs the Steering Committee whether changes to the conservation strategy are necessary.

The Steering Committee was reminded that there will be another “Modeling-for-Modelers” meeting scheduled soon to allow for a more detailed discussion of hydrodynamic modeling outputs.

Discussion: Recommended Separate Analyses

Dr. Cylinder presented the *Separate Analyses* handout which outlines additional conservation concepts to be analyzed separately from the BDCP Full Effects Analysis. At this time, these conservation concepts are not a part of the conservation strategy that will be proposed in the BDCP, and consequently will be analyzed separately from, but in parallel with, the Full Effect Analysis on the proposed conservation strategy. These separate analyses involve: 1) an analysis of broader range of intake locations and sizes in the north Delta; 2) an analysis of alternate pathways from the mainstem of the Sacramento River for fish to avoid new intake structures; 3) an analysis of the isolated Old River project; and 4) an analysis of the potential effects of increased San Joaquin River inflows to the Delta on BDCP biological goals and objectives. The outcomes of these separate analyses could provide the basis for modifications to the proposed BDCP conservation strategy.

The Steering Committee discussed such issues as why, when, and how these concepts might be brought into a proposed conservation strategy for the BDCP. DWR offered that the BDCP consultant (SAIC) should focus on the Full Effects Analysis, while other consultants conduct separate analyses. It was expressed that Steering Committee members should have similar access to consultants doing these separate analyses as they do the BDCP consultant. A request was made for a more detailed write-up of the proposed separate analyses list.

Public Comments:

Maria Wong (Yolo County HCP/NCCP Joint Powers Agency) indicated that the Yolo Natural Heritage Program and Yolo County are concerned about the potential for an inundation period for the Yolo Bypass to extend beyond March. Representatives of the County and the NHP would like to have an in-depth conversation about these issues. Ms. Wong notes that there are species of interest for the Yolo Natural Heritage Program

found within the Yolo Bypass, and Yolo County would like language in the BDCP to acknowledge that.

Phil Pogledich (Yolo County, Office of County Counsel) stated that Yolo County would welcome the opportunity to participate in, and take the lead in forming, a workgroup covering the issue of potential land use conflicts that could result in the Yolo Bypass.

Ann Spaulding (City of Antioch) asked for clarification about items in the Delta Outflow and X2 Location operational criteria that appeared missing from this handout when compared to the July, 2009 version of Chapter 3. Dr. Cylinder responded that Rio Vista flows and some other details were not proposed to be changed and so were not included in this handout.

Osha Meserve (Reclamation District 999 and Stone Lakes NWR Association) asked if the biostatistician who evaluated Old and Middle River reverse flows and fish salvage was the same person who presented at NAS. Ms. Meserve was told that the same biostatistician was involved in both processes.

Dan Kelly (representing Sacramento County and Glenn Colusa Irrigation District) asked for clarification on the meaning of the term, “‘related action’ alternative”, mentioned in the note preceded by a double asterisk on page 10 of the Recommended Long-term Operations handout that identifies an “analysis of NGO watershed unimpaired runoff approach.” Richard Roos-Collins and Gary Bobker responded regarding NGO’s interest in having the analysis described be conducted.

Ann Spaulding (City of Antioch) acknowledged the Farm Bureau letter. The City of Antioch would like to receive modeling inputs and outputs and detailed charts and graphs from the Mini-Effects Analysis so its modelers can analyze them. Jerry Johns offered a contact for the City to obtain the information and data.

Discussion: Review of Conservation Measures – Habitat Restoration and Other Stressors

Paul Cylinder presented the handout *SAIC recommended Revisions to Habitat Restoration and Other Stressors Conservation Measures for Use in Conducting the Effects Analysis*. Dr. Cylinder described the proposed revisions, identified in the handout, to the habitat restoration conservation measures that were posted on the BDCP website in August 2009. Suggested changes to the handout text were received from Steering Committee members. There was general agreement on the consultant-proposed revisions to the habitat restoration conservation measures.

Chair asked the Steering Committee if it consented to the inclusion of the habitat restoration conservation measures identified in the handout in the BDCP Full Effects Analysis. The Steering Committee generally agreed that these habitat restoration measures should be evaluated in the Full Effects Analysis.

Dr. Cylinder presented proposed revisions and deletions to the other stressors conservation measures. Dr. Cylinder pointed out that the conservation measure to reduce adverse effects of harvest on Sacramento splittail abundance (by developing a study of and drafting regulations for limits on recreational and commercial splittail harvest) is no

longer needed, as the Fish and Game Commission has adopted regulations to achieve this goal. However, Dr. Cylinder suggested this topic be included in the BDCP research program so that the BDCP provides for monitoring of the effectiveness of the new regulations.

Several of the other stressors conservation measures suggested for deletion are actions that would be beneficial to covered fish species; however, they have been identified as the responsibility of other state, federal, and local agencies, rather than the public agencies seeking regulatory authorizations under the BDCP. A suggestion was made to include language in the BDCP that identifies the importance of addressing these other stressors to benefit covered fish species, even if actions are not included as conservation measures upon which the BDCP conservation strategy will incorporate. A suggestion that a “funding pot” be included to fund research related to the efficacy of some the “important related actions” identified in the handout.

Suggested changes to the handout were received from Steering Committee members during the discussion, and these changes will be incorporated as revisions to the handout. A point was made that a measure be developed to address the effects of the Mirant power plants on fish; response given that such measures are in development. The deleted other stressors conservation measures will not be included in the Full Effects Analysis. A question was raised about how and where other stressors identified as “delete” in the handout would be evaluated. A meeting will be scheduled for several Steering Committee members to discuss the matter.

Public Comments:

Osha Meserve (Reclamation District 999 and Stone Lakes NWR Association) asked if the text should note coordination with landowners. Ms. Scarborough responded that landowner coordination issues are reflected in several chapters of the BDCP.

Bruce Houdesheldt (Northern California Water Association) asked for clarification on whether there would be mitigation of project impacts on methylmercury production. Dr. Cylinder responded that the conservation measure has been amended to address mitigation for methylmercury production that results from BDCP activities, such as tidal habitat restoration.

Following public comments, the Chair asked the Steering Committee if it agreed that the other stressor conservation measures identified in the handout as “keep” should be evaluated in the BDCP Full Effects Analysis. The Steering Committee generally agreed that the Full Effects Analysis should include these other stressors measures.

Discussion: North Delta Intake Locations

Paul Cylinder presented the *North Delta Intake Structures Locations* handout. Topics covered by the Steering Committee during this discussion included intake sizes and locations, effects of climate change and sea level rise on intake locations, minimizing predator attraction to intake structures, effectiveness of fish screens, and the use of alternative pathways for fish to avoid intake structures. Suggested changes to the text of

this handout were received from Steering Committee members during the discussion, and these changes will be incorporated into a revised version of the handout. A point was made that an analysis could be done on intake sizing (with associated costs) and made available to the Steering Committee. There was general agreement on the proposed intake locations, as presented in the handout, for use in the Full Effects Analysis.

Public Comments:

Osha Meserve (Reclamation District 999 and Stone Lakes NWR Association) offered, in regards to alternate pathways for fish passage, that it may not be appropriate (per the Endangered Species Act) to take protected species away from their designated critical habitat and move them into another channel when this is only required as a result of a proposed project. Ms. Scarborough responded that the matter will be looked into. Ms. Meserve also commented that the diagrams in the intake location handout do not show the ancillary facilities (e.g., power lines) and she would like to know what the impacts of those might be on the Stone Lakes National Wildlife Refuge.

Jonas Minton (Planning and Conservation League) stated that the Planning and Conservation League urges the Steering Committee to conduct a parallel analysis of potentially viable intake and conveyance alternative consisting of a 3,000 cfs intake linked to a 3,000 cfs tunnel.

Karen Medders (Delta resident) asked how BDCP will mitigate the transportation impact that construction of intakes may have on Highway 160. Ms. Scarborough noted the concern.

Dan Kelly (representing Sacramento County and Glenn Colusa Irrigation District) asked for clarification regarding the relationship between the other stressors conservation measures that were suggested for deletion and their inclusion (or lack thereof) in the Full Effects Analysis.

Following public comment, the Chair asked the Steering Committee if it agreed to the inclusion of the intake locations identified in the handout in the evaluation to be conducted in the BDCP Full Effects Analysis. The Steering Committee indicated that it agreed that such an evaluation of the intake locations be conducted in the Full Effects Analysis.

Discussion: Proposed Near-Term Operational Criteria

Laura King Moon discussed the development of the proposed criteria for near-term operations. Ms. Moon indicated that the PRE's require that water supply be improved in the near term, and that there is a need to find conservation measures that can be pursued immediately that would allow for water supply to be increased. There are no near term operational criteria proposed for consideration today, but the PRE's continue to work with the Fishery Agencies on the development of proposed criteria for near-term operations. A suggestion was made that development of a range of criteria for near-term operations may be a way to reach agreement on near-term operations. Continued effort

on developing near term operational criteria was encouraged by the Steering Committee.

Discussion: Fremont Weir & Yolo Bypass Infrastructure

Paul Cylinder presented the *SAIC Proposal to Steering Committee for Assessing Footprint Effects of Fremont Weir Modifications on Non-Tidal Biological Resources* handout which illustrates seven possible configurations for modifications to the Fremont Weir that DWR is evaluating. To maintain the effects analysis schedule in the absence of a final proposed design, SAIC suggests that a range of potential Fremont Weir configurations be considered and that the configuration that would have the most adverse effects on biological resources be identified and included in the analysis. This approach would allow for the “worst case” scenario of footprint-related effects on species and habitats to be evaluated in the Full Effect Analysis. Using this approach, the project design ultimately selected would have as much or less impact on covered species as assessed in the Full Effects Analysis; therefore ensuring that adverse effects are not underestimated.

A request was made for more information to be provided on proposed levee improvements in the Yolo bypass. A point was made that having more people involved in the engineering of these designs for Fremont Weir and Yolo Bypass would be beneficial to BDCP development. A meeting will be held to assemble engineers from DWR, USACE, DHCCP, NDWA and SAIC to discuss design options. It was recognized that the Yolo Bypass conservation measure will address vegetation control to minimize potential impacts on flood management capability.

Public Comments:

Maria Wong (Yolo County HCP/NCCP Joint Powers Agency) stated that Yolo County requests that an assessment of potential impacts of Fremont Weir configurations on terrestrial species be included in the BDCP.

Following public comment, the Chair asked the Steering Committee if it agreed to the inclusion of the proposed approach developed by the consultant to assess the potential effects of Fremont Weir modifications in the BDCP Full Effects Analysis. The Steering Committee indicated that it agreed that such an evaluation of the Fremont Weir modifications should be conducted in the Full Effects Analysis.

General Public Comments:

None

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)

Tom Howard (State Water Resources Control Board)
Jerry Johns (DWR)
Paul Robershotte (USACE)
Jason Peltier (Westlands Water District)
Brent Walthall (Kern County Water Agency)
Roger Patterson (Metropolitan Water District)
Greg Zlotnick (Santa Clara Valley Water District)
Ann Hayden (Environmental Defense Fund)
Kim Delfino (Defenders of Wildlife)
Gary Bobker (The Bay Institute)
Federico Barajas (Bureau of Reclamation)
Anthony Saracino (The Nature Conservancy)
Campbell Ingram (The Nature Conservancy)
Steve Ottemoeller (Friant Water Authority)
Carl Wilcox (DFG)
Kurt Arends (Zone 7)
Richard Roos-Collins (American Rivers)
Ara Azhderian (San Luis & Delta-Mendota Water Authority)
Melinda Terry (North Delta Water Agency)
Kenny Watkins (California Farm Bureau Federation)
Dan Castleberry (USFWS)
Maria Rea (NOAA/NMFS)
Greg Thomas (Natural Heritage Institute)
Michael Tucker (NOAA/NMFS)
Greg Gartrell (Contra Costa Water District)
Deanna Sereno (Contra Costa Water District)
Cindy Kao (Santa Clara Valley)
Paul Cylinder (SAIC)

On phone

John Cain (American Rivers)
Will Stelle (The Natural Resources Agency)
