

Comments due 3-11-2009

**Lower Yolo Bypass Planning Forum
BDCP Conservation Measures Subcommittee
Subcommittee Meeting #1**

DRAFT MEETING SUMMARY

MEETING DATE: February 24, 2009

LOCATION: Center for Collaborative Policy
815 S St, First Floor
Sacramento, CA

Meeting Participants

Brad Burkholder, Department of Fish and Game (DFG)
Regina Cherovsky, Reclamation District (RD) 2035
Tasmin Euseff, Department of Water Resources (DWR)
Dave Feliz, DFG
Mike Hardesty, RD 2068/2098
Butch Hodgkins, Central Valley Flood Protection Board (CVFPB)
Marianne Kirkland, DWR
Robin Kulakow, Yolo Basin Foundation (Foundation)
Kent Lang, Yolo Farms
David Okita, Solano County Water Agency (SCWA)
Erik Ringelberg, RD 999

Tom Schene, Glide Tule Ranch
Don Stevens, Glide-In-Ranch
Jan Vick, City of Rio Vista
Bob Webber, RD 999
Maria Wong, Yolo Natural Heritage Program

BDCP Staff

Chuck Hanson, BDCP
Karla Nemeth, California Resources Agency
Pete Rawlings, SAIC

Staff

Dave Ceppos, Center for Collaborative Policy (CCP)
Sam Magill, CCP

Action Items

1. Jay Ziegler will contact Curt Schmute, MWD, to develop a presentation on MWD's modeling efforts for a potential realignment of Putah Creek for the next Subcommittee meeting.
2. CCP will send an email to Subcommittee participants to schedule the next two meetings by February 26th.
3. CCP will coordinate the development of a formal comment letter with the Subcommittee and Planning Forum to the BDCP Steering Committee by March 10th.
4. CCP will contact Subcommittee participants for additional BDCP Conservation Measure impacts, alternatives, and objectives by February 26th. Participant responses will be used to develop a running list of impacts that will be updated at subsequent Subcommittee meetings.

NOTE: To review the specific comments on the Bay Delta Conservation Plan (BDCP) impacts, challenges, objectives, and alternatives, please refer to the document entitled, “Conservation Measure Impacts, Challenges, and Objectives.”

Introductions

Dave Ceppos opened the first meeting of the Lower Yolo Bypass Planning Forum (Planning Forum) Bay Delta Conservation Plan (BDCP) Conservation Measures Subcommittee (Subcommittee). He explained that because BDCP Conservation Measures might impact the entire Yolo Bypass, members of the Yolo Bypass Integrated Regional Water Management Plan (IRWMP) Subcommittee, a subset of the Yolo Bypass Working Group, were invited to join the BDCP Conservation Measures Subcommittee.

The Planning Forum Subcommittee was formed after the December meeting of the Planning Forum when Members highlighted the need to offer technical suggestions and comments on the Conservation Measures. Mr. Ceppos explained that BDCP is committed to this effort and that they have dedicated staff and consultants to attend the Subcommittee’s meetings, and present and take comments on the Conservation Measures that focus on the Yolo Bypass. Subcommittee members were encouraged to focus on specific objectives in the Conservation Measures instead of broad ideas and goals.

Mr. Ceppos asked that everyone focus the meeting discussion on the following:

- BDCP Objectives,
- BDCP proposed Measures to achieve these Objectives,
- Subcommittee comments on potential impacts from proposed Measures (including necessary / desired impact analyses and studies), and
- Subcommittee proposals of other ideas that can minimize impacts and still meet BDCP Objectives.

Attachment A presents these specific outcomes of the group discussion. The following also presents objectives proposed by BDCP staff during the entire group discussion.

BDCP Objectives

- Seasonally inundated floodplain
- Shallow, expansive floodplain that results in tule dominant vegetation communities, extensive delivery of dissolved organic carbon, high availability of lower trophic level food sources, and transport flows for fish rearing
- Geographically dispersed habitat throughout Delta
- Conservation Measures that contribute to the recovery of listed species
- Improved fish growth rates
- A baseline target similar to the species abundance of the mid 1960’s to mid 1980’s.
 - *NOTE: No set environmental condition has been established yet for / by BDCP.*
- Create a functional adaptive management approach to inform/adjust long-term measures

- Local inundation periods should be linked to yearly hydrologic conditions. These are variable. In wet years, inundation should last longer; in dry years, shorter.
- Ensure that BDCP actions are consistent with/supportive of broader CALFED Ecosystem Restoration Program (ERP) goals
- Stay compatible with current/future flood management system
- *Potential Objective: manage to create a more variable salinity gradient*

Initial Discussion:

- Maria Wong asked how comments and information provided by the Subcommittee and other similar venues are being brought before the BDCP Steering Committee. Karla Nemeth responded that comments by the Subcommittee should be provided in a letter addressed to Resources Agency Undersecretary Karen Scarborough, and the BDCP Steering Committee. Mr. Ceppos added that the meeting summary would be sent to the Steering Committee for their use. Ms. Nemeth added that while some comments will be suitable for inclusion into the Conservation Measures themselves, others will be more thematic and speak to larger ideas being addressed by the BDCP process.
- Mr. Ceppos asked what the Subcommittee hopes to achieve in these meetings. Robin Kulakow noted that the Planning Forum and the Foundation have submitted some comments on the BDCP/isolated conveyance Environmental Impact Report, but that it has not been changed to date. The Subcommittee provides a venue to submit comments directly to BDCP staff. Ms. Nemeth responded that the BDCP sponsors will have to analyze any of the impacts brought forward by the Subcommittee as well as those associated with currently proposed Conservation Measures.
- Ms. Kulakow noted that Subcommittee meetings are paid for by Planning Forum Stakeholders. Specifically, this meeting was paid for by DFG, MWD, SCWA, and the Yolo Natural Heritage Program.

BDCP Conservation Measures Presentations

BDCP staff delivered a presentation on Conservation Measure objectives and restoration opportunities in the Yolo Bypass. Ms. Nemeth commented that BDCP staff is looking at Yolo Bypass inundation flow ranges between 2,000 and 4,000 cubic feet per second (cfs). BDCP staff continues to model flows to identify ideal inundation flows for floodplain restoration. Specific objectives identified to date include:

- Establishing seasonally inundated shallow expansive floodplains as fish rearing habitat.
- Creating and maintaining these habitats geographically dispersed throughout Delta.
- Developing Conservation Measures that contribute to the recovery of listed species.
- Creating conditions to improve fish growth rates in the Yolo Bypass.
- Defining a baseline target for species recovery similar to the species abundance of the mid 1960's to mid 1980's.
 - *NOTE: No set environmental condition has been established yet for / by BDCP.*
- Creating a functional adaptive management approach to inform/adjust long-term measures
- Developing local inundation periods linked to yearly hydrologic conditions. These are variable. In wet years, inundation should last longer; in dry years, shorter.

- Ensuring that BDCP actions are consistent with/supportive of broader CALFED Ecosystem Restoration Program (ERP) goals
- Staying compatible with current/future flood management system
- *Potential Objective: manage to create a move variable salinity gradient*

These objectives are discussed in more detail below.

Chuck Hanson explained that one of the fundamental objectives of BDCP is to contribute to the recovery of listed fish species under the California and Federal Endangered Species Acts (ESA). Spring/winter run Chinook, Delta smelt, green sturgeon, splittail, and longfin smelt are all targeted for recovery by the Conservation Measures. The way BDCP staff has approached this goal is to identify a range of species, habitat requirements, and how changes to the ecosystem have occurred over time (including water exports and land use changes). Historically, much of the upper part of the Bay-Delta estuary served as a seasonally inundated floodplain habitat. Aquatic habitat was shallow and filled with tules. Organic material flowed down the Sacramento River to the Delta and served as the basis to support all food production for all trophic levels.

A number of factors have lead to species decline in recent years. There has been a significant reduction in the first trophic level (phytoplankton) that serves as the basis for the food web. Other factors for species decline include a loss of access to tidally/seasonally inundated critical habitat, and water exports from the south Delta. BDCP staff, consultants, and Steering Committee Members have used GIS and other tools to identify habitat opportunity areas based on elevation and geographic location. The intent (as per the BDCP objectives) is to restore some of the historic factors lost over time.

As noted, water export and diversion is a major cause of species decline. BDCP will consider a number of new diversion facilities culminating in the construction of an isolated facility with diversion facilities north of the Delta. In the near term, “through-Delta” conveyance will be improved to decrease species decline. The Yolo Bypass was chosen for habitat restoration opportunities because it has historically functioned as shallow water habitat with the right attributes for species. DWR has been looking for the last decade at how the Yolo Bypass/Cache Slough area functions for aquatic species.

Restoring natural inundation patters during late winter and the early spring is important for species recovery. BDCP staff has done a number of studies to see how the area functioned as a seasonal habitat. Study results show that fish in the Bypass have a substantially better growth rate for juvenile salmon. By improving growth rate opportunities, more survive.

Discussion:

- Don Stevens asked if there have been any studies with marked fish to show better survival rates as they migrate through the Yolo Bypass and through San Francisco Bay versus fish migrating down the Sacramento River.
- Mr. Hanson noted that while fish reared in the Yolo Bypass appear to grow much faster, no objective study with marked fish has been done. He added that further study is needed to bolster existing data; one of BDCP’s goals is to figure out what additional studies are needed.

- Maria Wong suggested that given the current Conservation Measures, it is reasonable to assume that agriculture will have to transition out of the Yolo Bypass. Historically the area has been very rich habitat for terrestrial species. She noted that if agriculture is removed and inundation becomes more frequent, terrestrial vegetation will be reduced. This could reduce the productivity for fish species as organic carbon is also reduced. Mr. Hanson noted that BDCP data is based on current conditions; BDCP staff is in the process of trying to better refine and understand potential impacts like this over time.
- Dave Feliz asked if Ted Sommer's (DWR) work on fish growth rates in the Bypass has been peer reviewed. Mr. Hanson responded that some review has been completed, but that further review from groups like the Subcommittee, independent scientists, and agencies must still be completed. In addition to Mr. Sommer's work, BDCP also relies on the Delta Regional Ecosystem Restoration Implementation Plan (DRERIP) models currently nearing completion.
- Erik Ringelberg asked if the basic premise of BDCP studies is that historic aquatic food production from the Yolo Bypass was higher than present levels. Mr. Hanson responded that though it was variable, aquatic food production from the 1960s to mid 1980s was much higher than it is currently. The Conservation Measures seek to restore that production. Monitoring must be tied to all restoration actions to ensure that 1960s-1980s food production levels are the correct levels.
- Mr. Stevens noted that BDCP could adversely affect current landowners in the Yolo Bypass without knowing what the effects will actually be on species. Pete Rawlings noted that while uncertainty does exist, certain species like splittail will definitely be benefited by floodplain inundation. There is less information for other species.
- Mr. Ceppos stressed the importance of providing as much detail as possible on what flow and water elevation targets for BDCP will be.
- Regina Cherovsky asked if there have been studies on narrowing flows in the Bypass (i.e., channelized flows on the east edge of the Yolo Bypass instead of total inundation). Mr. Hanson responded that there have been: initial studies were based on flows of 8,000 cfs over Fremont Weir; additional studies have shown that much lower flows between 3,000 and 5,000 cfs may be adequate to achieve the same benefits. Inundation models assume flooding would begin at the Fremont Weir; other inundation sources have not been looked at by BDCP. Ms. Cherovsky stressed the importance of limiting this inundation so that farmers can still plant crops in late May. To ensure adequate drying time, this means that inundation would have to stop in March at the latest.
- Mr. Ceppos asked if inundation would be timed to the overall water year. Mr. Hanson responded that it would be tied to natural hydrologic cycles and events; in wet years, proposed management of facilities would allow the Yolo Bypass to flood more than in dry years.
- Several participants expressed concern about basing inundation on weather. This could lead to too much uncertainty for farmers who must plan what and where to plant several months in advance of planting windows.
- The group started a list of potential alternatives (See Attachment A) One alternative is to depend on Bypass inundation through other water sources besides Fremont Weir. Jay Ziegler remarked that MWD has started some modeling on this, such as the potential realignment of Putah Creek. Mr. Ziegler agreed to ask Curt Schmute, (Department of Water Resources and MWD), to present this information at a future Subcommittee or full

Planning Forum meeting (see **Action Item #1**). Mr. Feliz stated that the DFG Yolo Bypass Wildlife Area Management Plan included modeling for a similar approach to Putah Creek.

- Ms. Wong stressed the need for more information on flow levels, including a best/worst case scenario. Mr. Rawlings said that the BDCP permit would include a “low end/high end” scenario. Modifications to Fremont Weir and flow levels would be reversible and based on a comprehensive adaptive management plan (AMP).
- Ms. Wong noted that rice production makes up 8% of Yolo County’s agricultural base. A third of Yolo County rice is in the Yolo Bypass. The uncertainties posed by BDCP Conservation Measures could negatively affect future rice production.
- Mr. Hanson noted that inundating the Yolo Bypass as much as every other year is not hydraulically feasible. Inundation would likely be increased to no more than once every three years. As previously noted, this would be based on the hydrologic cycle as opposed to a predetermined inundation schedule.
- Ms. Kulakow noted that recent comments from the Yolo County Agricultural Commissioner indicate that Yolo Bypass crops account for \$20 million annually. Inundation could disrupt this important economic base for the region and the habitats associated with agriculture.
- Ms. Kulakow suggested that BDCP should include a comprehensive survey of terrestrial habitats and non-aquatic protected species. Utilizing flooding from tributaries to the Yolo Bypass like Putah Creek instead of modifying Fremont Weir could impact these existing habitats less than Bypass-wide inundation.
- Ms. Kulakow commented that some farmers in the Lower Yolo Bypass have said that rice must be planted as early as March. Rice leases in the DFG Yolo Bypass Wildlife Area account for as much as 50% of its overall funding. Mr. Feliz added that rice is also a critical part of the Central Valley Joint Venture study on wintering habitat for waterfowl. Rice is a critical food source for birds.
- Mr. Feliz remarked that presuming species needs differ, BDCP should include specific descriptions of inundation scenarios for specific species, (i.e., what do you do for splittail? Salmonids? Smelt?) and an analysis of how such scenarios would need to differ and/or overlap to truly achieve BDCP objectives. Mr. Rawlings commented that some terrestrial species will benefit from floodplain inundation. Others could be adversely affected; these will have to be mitigated for. BDCP is part of a larger set of plans like Delta Vision and the CALFED Ecosystem Restoration Program (ERP) that will make broad scale changes to the Delta ecosystem.
- Mr. Ceppos asked if the BDCP Conservation Measures will ensure that terrestrial species covered by ERP are still protected. Ms. Nemeth responded that policy decisions will be made concerning which species are covered and which are not. If terrestrial species experience adverse effects due to BDCP, they must be mitigated for.
- Tom Schene remarked that the existing native grasslands in the Lower Yolo Bypass could be damaged or destroyed by increased inundation.
- Mr. Stevens remarked that increased inundation in the winter could have a negative impact on eastern Bypass duck clubs. Mr. Hanson agreed, and responded that inundation periods could be adjusted to increase overall species benefits. Seasonal flooding in the late winter/early spring would have a better benefit for species, and less of an effect on duck clubs and the DFG Yolo Bypass Wildlife Area. Mr. Stevens cautioned BDCP staff

that later floods in February-May would also have a substantial impact on marsh management activities.

- Brad Burkholder asked if BDCP uses the new rules set out by the Operations Criteria and Plan (OCAP), and what the inputs are for BDCP's models. Mr. Rawlings responded that D1641 is one of the main inputs, as is x(2). Flow ranges will continue to be developed based on the CALSIM and CAL-LITE models.
- Jan Vick stressed the importance of ensuring that water diversions at Hood do not cause an increase in salinity at Rio Vista. Mr. Hanson agreed, and noted that extensive modeling efforts using CALSIM will take this into account. Similar concerns have been echoed by south Delta farmers and the Contra Costa Water District. Having said that, there are some hypotheses suggesting that increasing the salinity variability throughout the Delta will benefit species. Ms. Vick remarked that BDCP should look at more than aquatic species, and include land use and economic impacts as well.
- Ms. Vick commented that increased inundation can't affect the flood carrying capacity of the Yolo Bypass. If inundation is increased in February and March, the AMP must ensure that overall flood capacity is not diminished. Mr. Hanson agreed, and added that habitat opportunities are believed to be compatible with flood control.
- Ms. Vick asked what is meant by predator control in the Yolo Bypass. Mr. Hanson explained that the Conservation Measures must be designed in such a way that they do not increase predator populations at the southern end of the Yolo Bypass. This would effectively funnel juvenile fish growing in the Yolo Bypass toward predators at the bottom of the system. Further study of predator control methods should be included in the Conservation Measures.

Next Steps

Mr. Ceppos stated that the Subcommittee should develop next steps to move forward with a collective set of concerns, issues, and alternatives for the BDCP Steering Committee to consider. This will help address the range of stakeholder concerns and inform BDCP of the range of options available. He then asked Subcommittee members what their intended outcome for these meetings is.

Discussion:

- Ms. Wong responded that BDCP must minimize impacts to local communities to the greatest extent possible. Individuals/entities that are impacted must be made whole at the end of the day. Mike Hardesty stressed that being "made whole" goes beyond the California Environmental Quality Act (CEQA) sense of the term, and that BDCP should seek to improve local conditions as much as possible as part of the Conservation Measures.
- Ms. Vick suggested that the science behind the Conservation measures must be reviewed and flushed out before BDCP is finalized.
- Mr. Burkholder remarked that BDCP must take into account the current operations of the State Water Project/Central Valley Project pumps. The Delta smelt and salmon biological opinions, longfin smelt permits, OCAP, and D1641 all must be taken into account.

- Mr. Okita remarked that BDCP should formalize a process to address mitigation of impacts to local communities.
- Mr. Feliz remarked that he would like to see timelines of proposed land uses/inundation developed and used as a planning tool.
- Ms. Kulakow suggested that further meetings between the Subcommittee, BDCP staff, engineers, and local landowners with lifelong knowledge of the Yolo Bypass will help brainstorm ways to modify the land to reach BDCP objectives while minimizing impacts. A greater understanding of the BDCP timeline would also be helpful for the Subcommittee.
- Ms. Kulakow suggested that BDCP must include some recognition that local land uses have value beyond monetary value. The cultural and recreational heritage of the Yolo Bypass should be included in the Conservation Measures.
- Butch Hodgkins stressed the need to monitor the effect of inundation on vegetation levels and changing hydraulic properties as they relate to the flood control function of the Yolo Bypass. Agriculture in the Yolo Bypass serves an important function from a flood control standpoint by reducing the amount of tall vegetation that could increase flood risk. Measures that threaten the long-term viability of agricultural land use / management in the Bypass also threaten the cost efficient maintenance of the Bypass as a flood conveyance facility. Someone else will have to pay for and maintain the Bypass if agriculture is gone
- Ms. Vick suggested that it would be useful to scheduled additional meetings of the Subcommittee as soon as possible to continue the discussion of Conservation Measure impacts to the Cache Slough complex (**see Action Item #2**).

After receiving input from Subcommittee members, Mr. Ceppos asked BDCP staff what they hope to get out Subcommittee meetings.

Discussion:

- Ms. Nemeth suggested that she could take Mr. Okita’s comment for a formalized local mitigation process directly to the Steering Committee. She also suggested that the Subcommittee and Planning Forum develop a formal letter to the Steering Committee containing their concerns. This letter should be addressed to the Steering Committee and cc Undersecretary Scarborough (**see Action Item #3**).
- Mr. Ceppos asked if BDCP staff would be able to attend future meetings of the Subcommittee. Ms. Nemeth responded that they would continue to get feedback from the Subcommittee as BDCP moves forward.
- Mr. Ceppos asked if there is any advantage to the Subcommittee spending more time on alternatives/impacts discussed during the meeting, or whether a “placeholder” in the Conservation Measures would be enough for now. Mr. Rawlings responded that a placeholder would be sufficient. A running list of impacts should be developed to discuss at a later date (**see Action Item #4**).

Formalization of BDCP Acceptance of Subcommittee Recommendations

The meeting ended with a discussion of how the Subcommittee should request formal commitment from the Steering Committee that its recommendations are addressed in the

Conservation Measures. BDCP staff noted that the most appropriate form of input into the BDCP process at this time is through a formal comment letter. Mr. Ceppos noted that the collective voice of groups like the Planning Forum tend to carry more weight than messages from individual organizations. Meeting participants suggested that rather than work through the BDCP Steering Committee, it is time to start working directly with BDCP Principal Leaders. Subcommittee members collectively expressed frustration and dissatisfaction with the process through which they have directed input to the Steering Committee which then seems to act as a filter for this input. The Subcommittee believes that given the Membership of the Planning Forum, and the role it is intended to play, it is time to hold more direct and equivalent conversations with BDCP leaders.