



BDCP
BAY DELTA CONSERVATION PLAN

Meeting: South Delta Habitat Working Group – Meeting #3
Location: City of Lathrop Council Chambers, 390 Towne Centre Drive, Lathrop
Date: October 7, 2011
Time: 9:00 AM - 12:00 PM

Attendees:

	Name	Organization
1.	Dale Hoffman-Floerke	DWR
2.	Jerry Meral	Resources
3.	Jim Starr	DFG
4.	Scott Woodland	DWR
5.	Cathy Marcinkevage	NOAA Fisheries
6.	Glenn Gebhart	City of Lathrop
7.	Eric Ginney	ESA PWA
8.	Jeremy Thomas	Newfields
9.	Mark Tompkins	Newfields
10.	Deanna Sereno	Contra Costa Water District
11.	Greg Pombo	RD 2058/Landowner
12.	Katie Patterson	San Joaquin Farm Bureau
13.	Rogene Reynolds	Landowner Roberts Island
14.	Dante Nomellini	CDWA/RD 17
15.	Ronald Berg	Landowner Union Island
16.	Kristy Galli-Berg	Landowner Union Island
17.	Betty Galli	Landowner Union Island
18.	Bob Pombo	RD 2095/Landowner
19.	Rosie Silva	RD 2095
20.	John Cain	American Rivers
21.	Frances Brewster	Santa Clara Valley Water District
22.	Jason Peltier	Westlands Water District
23.	Bill Reynolds	Landowner Roberts Island
24.	George Crothers	Landowner
25.	Jim & Lititia Larkin	Landowner
26.	Delores Ohm	Landowner
27.	Loren Ohm	Landowner



28.	Ron Del Barba	Landowner
29.	Ann Del Barba	Landowner
30.	Vincent Muela	Landowner
31.	Carl & Carol Aufdermaur	Landowner Middle River
32.	Jesslyn & Nick Farros	Landowner
33.	John & Dixie Braas	Landowner
34.	Elmer Muller	Landowner
35.	Janice Russ	Landowner
36.	Susan Del Osso	River Islands
37.	Art Godwin	San Joaquin River Group Authority
38.	Dean Ruiz	CDWA
39.	John Clerici	Consultant/Facilitator
40.	Stefanie Lyster	Consultant/Notetaker

Meeting Summary

John Clerici opened the meeting by welcoming participants and introducing some ground rules to guide working group discussion. He reviewed the meeting format and items to be discussed and then asked Dr. Jerry Meral, California Natural Resources Agency, to provide some opening remarks. Dr. Meral gave a brief background on the purpose of the working group – to develop a plan to enhance habitat values in the South Delta, focusing on species that are endangered, threatened, or of concern – and reminded participants the discussion taking place at the meeting is one small piece of the conservation plan and to treat material presented as very preliminary.

Mr. Clerici gave a brief summary of the second working group meeting, held on September 15, noting the working group planning team got critical input about Paradise Cut and Roberts Island, with the possibility of Paradise Cut being a focus of this effort. There were many new participants to the working group who attended the second meeting, so presenters reviewed topics covered in the first meeting and committed to discussing the topic of dredging at today’s meeting.

Summary of Working Group Meeting #2

Eric Ginney, ESA PWA and part of the working group consultant team, reviewed the content covered at the first two meetings. He re-stated the goal of the working group – to identify opportunities for habitat restoration and flood management actions. He reminded participants that the working group is at a screening level and is looking at where actions could be compatible to meet the working group goals.

Habitat Compatibility with Flood Management

Mr. Ginney reviewed flood management objectives and ecosystem improvement objectives and ways to integrate the two through a “toolbox” where potential projects would be located along existing corridors. He explained that examples of flood management objectives could include levee modifications, such as height increase, setbacks, flood bypasses, easements or dredging, and habitat restoration could include floodplain habitat, riparian habitat or channel margin habitat.

Mr. Ginney showed a series of cross sections of typical flood management and riparian habitat, as well as examples of setback levees installed along the Bear and Feather rivers.

The following questions were asked and comments made on the above topic:

- Q: Regarding the benefit for aquatic ecosystem – is this important for fish?
R: (Mr. Ginney showed a picture of fish reared in the river and in a floodplain.) Those reared in floodplain are a lot bigger. When water gets on the floodplain, the result is good food for fish to eat in floodplain.
C: Fish in floodplains grow three times as fast and have better success and survival rates (as those in open channels).
C: Is there a study that supports reduced predation for larger fish? It seems like birds in this area would prey on big fish.
R: Yes, there is a study. Floodplains are dry most of the year, so predator fish (i.e. bass) tend to set up territories that are wet all year and don’t adapt to floodplain and wait for salmon to eat. For birds, when there is a water depth of more than 18 inches, there is often a drop in predation. With more cover, there are more places for fish to hide. A benefit of the Yolo Bypass is better fish survival. There have been studies done by Ted Summer.
- Q : How did the Yuba County feel about taking property out of production (for the setback levees along the Feather River)?
R: The Three Rivers Levee Improvement Authority had a management plan in place to address that issue.
C: Taking that amount of acreage out of production adds up.
R: There are methods to deal with tax ramifications. This is being examined in BDCP to mitigate loss of tax revenue.

- C: Roberts Island has never been flooded and the levees are in good shape. This project will cause us problems in order to benefit fish. We need food, not fish.
- Q: With the Feather River setback levee project, were there any residences that had to be eliminated? Did anyone live in the floodplain?
R: There were about 12 residences, all essentially agricultural land or non-productive agricultural land.
- C: American Rivers agrees the issue of how projects affect local economies and tax bases needs to be addressed. However, the number one priority for the river needs to be public safety. If the river isn't safe, there is a conflict between fish and other benefits rivers provide and public safety. The Feather River example is similar to the South Delta area and levee failures in 1997. The 1986 levee failures cost the state billions of dollars in flood liability. When we think of real impacts to local jurisdictions and public safety, there needs to be a balance. We need to find a way to fairly compensate local jurisdictions and landowners, and also put costs in perspective for how much taxpayers of California will pay if nothing is done.

Following this discussion, Scott Woodland, California Department of Water Resources, discussed how the proposed corridors could reduce operations and maintenance costs. He discussed some work being done on levee strengthening in the region and noted in some areas the levee comes down to the water's edge. This presents a challenge to have water in place at the toe of the levee because it causes scour and other potential maintenance concerns. Scott commented that if, for example, a setback levee could be put in place at locations where the water is at the toe of the levee, it could reduce scour and also minimize maintenance costs.

Mr. Woodland went on to address the issue of dredging that came up at the second working group meeting on September 15. He stated that dredging could be done in some areas and gave examples of how that could be applicable, pointing out there is a need to look for where levee improvements can be made.

The following questions were asked and comments made on the above topic:

- Q: If setback levees are installed, how does that affect regular maintenance?
R: DWR is looking at a corridor management strategy. If the baseline is raised, problems should be lessened because there are less maintenance restrictions and therefore current maintenance and mitigation issues can be lessened.
- Q: Will we be able to keep new levees free of trees?

R: New levees can be kept bare or have low grasses on them that can be mowed. Vegetation coming off the tow of the levee serves two purposes: creates habitat and diminishes wave wash.

- C: Raising the baseline to reduce mitigation is wrong and won't do anything.
R: There would be rock on the levees and grasses can be planted. With shallower slopes, normal flows can be kept off the levees.
C: You will have water on levees when you have a high water event.
R: There can be rock on the levee and grasses above.
Action Item: Have experts who can address this topic attend a working group meeting
- C: We are in the south Delta floodplain. The floodplain is so wide that water hitting the levees isn't something I think we could ever go along with.
R: The specifics are important to discuss; we aren't talking about high flood flows. We are still at a high-level concept.
- C: The baseline conversation is a good one and I think it is good for this working group process to keep a list of the issues that belong on a list of potential assurances that stakeholders are looking for in the process.
Action Item: *Develop and maintain a list of potential assurances*
- Q: Where on the San Joaquin River, Old River and Middle River do you propose this and how many acres?
• R: This issues will be discussed soon but we are not at the engineering level now in this process.
- C: Locally, we are working on improvements to Paradise Cut. The Three Rives model won't work here. You should try to build off of what we are doing here locally. We are not happy with loss of farmland, and there won't be much enthusiasm among stakeholders for any other corridor options. We had good fish production recently. What conditions did we have on the San Joaquin River that were conducive to maintaining adequate levels of fish? The answer to that question should be the focus of what we're working on in this group, along with broader issues such as minimizing economic impacts.
- C: Stakeholders have been discussing widening Paradise Cut for a long time and this process should look to examine that option.

R: The planning team agrees and wants to look at how to maximize Paradise Cut and if something has to be done upstream or downstream to make that option viable. The purpose of this working group is to study areas, not propose a project. The end result is hopefully a best solution or best idea of what a solution could be in this area.

Corridors for Evaluation

Mr. Ginney discussed the corridors being proposed for evaluation. He emphasized the corridors are conceptual for the purpose of evaluating the benefit of doing anything in any one corridor. Mr. Ginney gave a general background of the corridors and maps and then gave more detail about each proposed corridor option. Four corridors with multiple options are under evaluation: 1) San Joaquin River – Vernalis to Mossdale; 2) Paradise Cut/Old River; 3) Middle River; and 4) San Joaquin River – Main stem.

The following questions were asked and comments made on the corridors for evaluation:

- Q: Have you looked at approximate acreage for these options?
R: Not at this point. We are currently looking at what type of flood benefit we would get and acreage we could store.
Q: So you are looking at the historical floodplain but not looking at habitat or acreage?
R: We will evaluate for fish benefit in the future.
C: I ask this question because the initial South Delta concept for BDCP considered 6,000 to 10,000 acres, so I am interested in the acreage to be used conceptually for the corridors.
R: We are just at a starting point so are not yet looking at acreage. This is a wide corridor. We need to examine if it has appreciable flood benefits for communities downstream. If the answer is no, we likely will not consider it as an option. What we are doing now allows an initial look to determine if we should study any further.
- C: Look upstream for benefits to refuges and their ability to manage flood flow.
R: We are using the same flood routing to assume what levees upstream could fail. We are making common assumptions as the Central Valley Floodstream Plan.
- C: The 1997 flood was a man-made flood caused by dams opening up, not a natural flood. We had more rains last year, and they were controlled, and we did not have flooding problems last year. Look at 1997 and 2011, and you'd probably find you had more rainfall in 2011.

- C: There is a tension between flood management and ecosystem restoration. If something comes out that has a negative impact on flood and a positive impact on the ecosystem benefit, it probably will not work; however, if there is a neutral impact to the ecosystem and a positive impact for flood management, that option could be a possibility.

R: The planning team is looking at ways options could link up to Paradise Cut. From a process standpoint for the working group, we have to look at a variety of options.

- C: You should incorporate the connections further upstream that the SDWA is examining. Paradise Cut should be fed from higher up on the stream. Their concept is about a mile upstream. Broaden this corridor so their concept fits into it.

R: We will update the graphic to show we capture the upstream high end with the weir that is being considered

- Q: Can you look at options that won't hurt farmers and residences?

R: The existence of all infrastructures is taken into consideration.

- C: There are areas that can achieve the type of desired inundation. Concentration on a more narrow approach would be helpful in order to get enthusiasm out of locals.

Overview of the Evaluation Process

Mr. Ginney and Jeremy Thomas, Newfields, explained the corridor evaluations process of evaluating flood, ecosystem, land use and recreation outcomes, both positive and negative, using a one dimensional hydrologic model. They will put all results in a descriptive document, one per corridor, and provide to the working group for comment and input.

- Q: What flows are you using?

R: For flood flows, we are using the 50-year hydrograph. For ecological benefits, we are looking at the current hydrograph and then at flows that give timing and duration, probably in the spring. We also look at sea level rise. We are not assuming a new routed hydrograph for upstream.

- C: I am concerned about the assumptions being made for future flows, for water coming in at Vernalis, for example.

R: We do modeling with and without sea level rise. We will keep a lot of assumptions for flood modeling consistent with state efforts so those stakeholders who understand the CVFP process can be clear on what models we are running. We will also do modeling

work that will be presented in briefing papers. We are forming a group to review models for flood management and ecosystem management. There is no quantitative way to measure recreation benefits, for example, so that will be more descriptive. For land use, we categorically list changes from existing conditions.

- C: For the hydrograph model and spring expectation, the San Joaquin River restoration program might want to know the regime for ecological benefit.
R: We have data with timing and criteria, but I don't think it has outcomes. For a number of species, mostly salmonids and splittail, we are not going to recommend a flow regime. We will model a range.
- Q: What is that range going to be? Would you plug it into the model based on recommendations?
R: We are not taking anyone's recommendations. We are using an index with specific criteria.
- C: When discussing flows, you are talking about what flow the species need. What historical flows are you looking at to get exceedance on flows?
R: We are looking at a post-dam flow regime. Expanding that adds uncertainty. The working group charter (which is posted on the BDCP Website) says to examine flows for future conditions, and that is where sensitivity comes in.
- Q: What is the timeline for evaluation?
R: We will evaluate this information over the next month and a half, before the next working group meeting.
- C: Regarding flood hydrology: if this is a long-term, future-looking project, look into 100- or 200-year hydrology because that is what is needed to protect urban areas in the south Delta. Fifty-year hydrology might not capture that.
C: SDWA is working off of 200-year hydrology.
R: DWR has a perspective on what happens in those scenarios. We do not know if we will add on additional flood evaluations.
- C: Regarding a slide of the cross sections with the levee setback: If you project a slope of the river side levee down, that volume of material – if it were dredged, assuming the cross sections are representative of the length of river over corridor – appears it would double the capacity of river. You have to not interfere with the toe of the levee. That

sounds reasonable. You have to stay 15 feet away from toe. But the other levee is offset 1500 feet, in another slide. That doesn't add up.

R: The point of those cross sections was to have the levee away for conveyance purposes, giving another benefit for flooding. It does not do anything for one side of levee.

C: That would double the capacity of river, and takes care of the transport issue.

- C: I am concerned that if you take the area inside of levees – 1500 feet – there is no question the goal is to attract terrestrial species. When on Paradise Cut, you will see agriculture fields and also some nice habitat areas that attract terrestrial species. Then if you get flows and species get stuck in one narrow bend, they will be targeted by predators. When you are attracting species and have bare levees, you are attracting for the area to drown. You need something so when flows come up, they can back up and have place to back up to.

R: Agreed. That is part of the River Islands' plan.

- Q: If this area had endangered species before the river filled up with silt, why aren't the rivers just cleaned up so the species will survive?
- Q: How are experts going to understand what local concerns are and will those concerns be considered?
R: The consultants are charged to take the concerns back to DWR, and they are going to talk with Reclamation District engineers as well to hear their concerns about local issues. Those issues will all be reflected back in documents being prepared for the working group. Stakeholders will have a chance to review the documents and let the planning team and agency staff know what was taken into consideration. We will be looking at number of homes, businesses, and agriculture land, for example, and that will show up as a consideration.
- C: I pointed out at the last meeting some information from SDIP documents regarding how much acreage has already been given to habitat restoration. Where is that answer to that questions?

R: That question was forwarded to DWR staff and is being examined.

- Q: Why don't the consultants look at Stewards Tract as an option?
R: River Islands has \$200 million invested and is waiting for development to happen.
- Q: Why aren't trees allowed on levees?

R: Because of a policy by the U.S. Army Corps of Engineers that doesn't allow vegetation on levees.

Field Tour Overview

Susan Del Oso provided an overview of the field tour taking place after the conclusion of the working group meeting.

Next Steps/Action Items:

Mr. Clerici reviewed the meeting's action items and next steps. The planning team will:

- conduct modeling and technical work and coordinate meetings with local stakeholders on corridor evaluations
- provide a literature review of the study on benefits to fish residing in floodplains
- provide a case study on setback levees that have been created and are currently functioning
- prepare list of potential concerns regarding safe harbors, impacts to landowners, effects on species, and tax base/economic impacts
- provide results of technical work being conducted

Next Meeting (Time and Place):

Friday, December 2, 2011

9:00 a.m. – 12:00 p.m.

City of Lathrop Council Chambers

390 Towne Centre Drive

Lathrop

Notes Prepared by: Stefanie Lyster