

Yolo Bypass Working Group  
June 12, 2017 (Meeting 53); 1:30 PM – 4:00 PM  
Yolo Bypass Wildlife Area Conference Room

**Meeting Summary**

**Meeting Participants**

Sarah Ross Arrouzet – USACE  
Manny Bahia - CA Department of Water Resources (DWR)  
Mila Berry - CA Department of Water Resources (DWR)  
Peter Blodgett – USACE  
Chris Bowles – CBEC  
John Brennan – Knaggs Ranch  
Doug Brown – Douglas Env.  
Carrie Buckman – CDM Smith  
Mike Deas – Yolo Basin Foundation (YBF)  
Nick Dedien – Glide In Ranch  
Karen Enstrom - CA Department of Water Resources (DWR)  
Robert Fowler – SYMVCD  
Dick Goodell – Glide In Ranch  
Jonathan Howard – AD4  
Patrick Huber - City of Davis Natural Resources Commission  
Steve Jennings – Channel Ranch  
Chris Fulster Jr. – Glide In Ranch  
David Katz – Nigiri Project/Cal Marsh  
Mike Kleary – Duck Hunting  
David Kohlhorst – Glide In Ranch  
Robin Kulakow – Yolo Basin Foundation (YBF)  
Mike Lear – Swanston  
Aric Lester – CA Department of Water Resources (DWR)  
Chido Macharaga – Yolo Basin Foundation (YBF)  
Betsy Marchand – Yolo Basin Foundation (YBF)  
Petrea Marchand - Consero Solutions representing Yolo County  
Gayle Margarite – Rising Wings Duck Club  
Gus Margarite – Rising Wings Duck Club  
Analisa Martinez – CA Department of Water Resources (DWR)  
Selby Mohr – Mound Farms  
Eric Nagy – LWA  
Ben Nelson – USBR  
James Newcomb – CA Department of Water Resources (DWR)  
Heather Nichols – Yolo County RCD  
Martha Ozonoff – Yolo Basin Foundation (YBF)  
Paul Phillips – CWA  
Tom Schene – Glide Tule  
Marty Scholl – Sac-Yolo MVCD  
Sara Schultz – USACE  
Bjarni Serup – CA Department of Fish and Wildlife (CDFW)

Don Stevens – Glide In Ranch  
Jeff Stoddard – CA Department of Fish and Wildlife (CDFW)  
David te Velde – Farmer  
Jeffrey Volberg – CWA  
Lindsay Weston – Yolo Basin Foundation (YBF)  
Jeanette Wrynski – Yolo County RCD  
David Zezulak – CA Department of Fish and Wildlife (CDFW)

Welcome – Jeff Stoddard and Robin Kulakow 1:31pm

Meeting Purpose: Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project presentation of six alternatives for modifying the Fremont Weir.

**A. Project purpose and goals – Kris Tjernell 1:42pm**

This decade long project aims to lower the elevation of a section of the Fremont Weir so that the Yolo Bypass floods for a greater part of the season. The project has evolved over the years, and state and public agencies have not been able to provide a detailed analysis of their findings and what these changes will mean for stakeholders. Through this working group, and a series of meetings going forward, presenting parties hope to restart communications at a greater level of detail leading to resolution. The main goal of the project is to keep current land use while managing resources and improving habitat for fish. This sparks a conversation around aiding/enhancing land use for fisheries in a way that works for all stakeholders of the bypass.

Years after the state and federal water infrastructure was built, research showed that the reservoirs and pumps were adversely impacting ecosystems, accelerating the decline of populations of certain fish species. In 2009, a Biological Opinion explored different concepts to combat the negative impacts from state and federal Central Valley water operation projects. This project addresses two actions included in the suite of habitat restoration actions from the Biological Opinion's Reasonable and Prudent Alternatives (RPA):

- RPA Action I.6.1 – Increase seasonal floodplain inundation in the lower Sacramento River Basin (limit = space... look at systems of bypasses as they are already used for floodplains, agriculture, and education etc.).
- RPA Action I.7 Improve fish passage throughout the Yolo Bypass (acknowledges that there are obstructions in Tule Canal for adult fish).

This working group meeting will focus on how the Fremont Weir can be manipulated so that a section is low enough to allow fluid movement for fish (by reducing migratory delays and loss of fish) while addressing on-the-ground issues. This discussion will concern not only benefits for fish, but how the project could possibly benefit all stakeholders impacted by this project.

The project team's work has been accelerated to not only aid fish populations, but to also show good faith to the groups impacted by project goals. Specifically, the team has been working on smaller projects that target RPA I.7 objectives, including:

- Wallace Weir Fish Rescue Facility – New concrete structure (DWR is working with Reclamation District 108)
- Fremont Weir Adult Fish Passage– This project will be making the existing ladder slightly wider and deeper over the summer. They will be update the existing fish ladder with new technology.

### Questions:

**Doug Brown-- Do you have an update on Swanston Ranch?**

**Manny Bahia** - Construction was originally for 2018. "Oroville effort" cut funds. The construction has been pushed back to 2019. Working w/Mike Lear on a couple of the concepts out there, but there is no selected concept at this time.

**James Newcomb** - And that's the same for Lisbon Weir where we're looking at making modifications for fish passage while retaining its current function

**Chris Fulster -- A lot more salmon are stuck in the basin when they go up the DeepWater Ship Channel. Why not open the gates to let the salmon go through to the Sacramento River? Instead of spending all this money in the Yolo Bypass, you could just open the gates about a foot, a foot and a half and you'll see more salmon than this project you're working on now.**

**Kris--**We are looking at the Ship Channel but that is mostly driven by flood interests. We can't get into details about that at this meeting. The DeepWater Ship Channel ends in the Port of Sacramento. DWR is going to be working with our federal partners to explore creating a connection between the Yolo Bypass and the DeepWater Ship Channel to increase the ability of the Yolo Bypass to convey floodwater. There may be a similar outcome but a different point of bringing the water in.

**Where is the connection going to be?**

**Kris** –This is more conceptual at this point. We couldn't pinpoint a location on the map yet.

**Dave Kolhurst—This is confusing. We're obviously missing something here. We have a gate that already exists at the head of the DeepWater Channel. So why aren't we using that to get the salmon into the river instead of working on a new project?**

**Is there a reason the gates can't be open?**

\*Note: question tabled for another discussion.

### **B. Environmental Analysis Process – Carrie Beckman 2:10pm**

The point of this process is to look at a range of alternatives and consider the potential impact of those alternatives and ways to reduce the impacts. Data and information will then be reported in an environmental document. We have been working on a draft

Environmental Impact Statement (EIS) and a draft Environmental Impact Report (EIR) to evaluate impacts and identify mitigation measures. The Draft EIS/EIR will be released for public review in Oct 2017. In 2018, the team will look at public comments, respond to comments, make any changes necessary in the environmental document and then create a final decision document based on that environmental document. The goal of this environmental analysis is to provide information so that decision-makers can understand the impacts before implementation.

Permitting activities will begin in 2017. These will happen in partnership with the state and federal fisheries and wildlife agencies in order to look at endangered species. The project will create seasonal (winter) floodplain habitat for juvenile salmonids. The Yolo Bypass will only be inundated when the Sacramento River is high enough to spill over the Fremont Weir, in an effort to work with the natural hydrograph. The team is working to provide a project that maintains current land use.

Alternatives:

1. East side – gated notch can be opened or closed, connecting to Tule Canal while providing levee protection

2. Central location - gated notch can be opened or closed, connecting to Tule Canal while providing levee protection

3. West Side – gated notch can be opened or closed, connecting to Tule Canal while providing levee protection

\*Alt 1,2,3: Flows up to 6,000 cfs through gated notch. Rising river levels = notch opens when river exceeds 17' at eastern location - 3' over the bottom of notch, providing optimal passage for fish. Falling river – notch closes when river goes below 14'. Open November 1 to March 15.

4. Managed Flow – Same structural configuration as Alt 3. Manages 3,000 cfs of flow while moving down bypass, controlled release of water from North of I-80.

5. Multiple Gated Notch - Multiple gates (3 groups of gates) different depths for gates to operate in tandem 3,400 cfs working together to accommodate flow

6. Large notch - Large facility that will allow 12,000+ cfs

Questions:

**As far as this water going back to the Toe Drain, what is the capacity of the Toe Drain?**

**Carrie** - That varies as you go down the Bypass.

**Manny** - North of I-5 the capacity is 1,200 cfs and south I-80 4-5000 cfs

**Carrie** - We shouldn't directly compare to flows coming in at Fremont weir. Often times there are other sources of inflow into the Bypass with water coming from the westside tributaries - Cache Creek and Putah Creek in particular.

**Do you know the water level below Lisbon Weir for this event?**

**Manny** - It varies. But all of this information will be present in the EIR/EIS that we are releasing, and will also be in the graphics we go over. Each rate of flow is going to be different, but when the Fremont Weir overtops, that's what drives the inundation. It's hard to pinpoint the flow rate unless you have a specific question.

**How much below 32 ft. will this be?**

**Manny** - Most of the alternatives go down 18 ft. deeper, so an elevation of 14ft.

**James** - You're asking specifically about the water elevation down at Lisbon Weir though?

**Tom** - We're down near the Southern end, so we always look at Lisbon to gage water levels in terms of when to move livestock out, and at a certain level, we know how far the water is going to back up into the pastures around us.

**James** - We can get that answer but we don't have it. The way we can get that answer is to compare the 16 years we used in the model and we have existing conditions and can look at those changes over the years.

**Martha Ozonoff**– **How often is the river at 14 ft.?**

**Carrie** - River would spill until 17 ft. Manny will elaborate on this further next.

**Petrea Marchand**– **Is there a preferred alternative? And when will you develop a preferred alternative?**

**Carrie** - No, there is not. We are going to be working on developing one between now and end of 2017, but we don't anticipate on picking one until we see public comments on the draft EIS/EIR before making those decisions.

**Petrea** – **Is the March 7 gate closure date still a part of Alt 4?**

**Carrie** - Yes, it is important to note that Alt 1,2,3,5, 6 all have a potential end date of March 15th. Alt 4 has an alternative closure deadline of March 7 as well, so it has data for both.

**Doug** - **Can you describe the supplemental fish passage and how that differs from the developed fish passage?**

**Carrie** - Alt 1 was the starting point. We're working at a fish passage here after an overtopping event fish get stuck in the splash basin in the Fremont Weir. We included a supplemental fish passage on the westside. Planning is still in progress. It would only be activated after an overtopping event

**James** – It does not have a flow through component

**Is there a cost estimate?**

**Carrie** - Yes, we will be able to present them at some point

**Don** – **You’re talking about adding water into the Bypass that isn’t floodwater? The easements are for flood event. What are the steps to protect entities that don’t want the extra water?**

**Carrie** - We don’t have any estimates. Maybe government agencies might have more information. We’d appreciate any suggestions on how to prevent negative impacts to duck clubs.

**Chris** - **You do understand that the duck season is Oct 22. What is your funding mechanism?**

**Kris** - Through the annual budget process

**Petrea** – **State has a contract with Ducks Unlimited to update data.**

**Jeff Volberg** – **There will be an impact to the resources for migratory fowl (can’t compensate for ducks and geese). When Lisbon gets to 11 feet, property begins to flood. At 12 feet, I’m flooded. If you raise the level at the Lisbon gauge a lot of people will be flooded.**

**Dave** – **So this 5000 cfs is not on top of water flowing over the Bypass, it is in addition?**

**Carrie** – Yes.

**James** - Trapezoid flow. Shape doesn’t provide uniform flooding

**Gus** -- **Does that mean that the flooding and inundation will affect the flow valleys on the chart?**

**Manny** - it depends on the rain year

**Huber--** **There exponential growth of salmon in Putah Creek, will this affect these efforts?**

**Carrie** – We are not sure about Putah Creek, but we will look into this

### **C. Environmental Impacts – Manny Bahia. 2:36pm**

Hydraulic modeling for impact analyses – In 2014 assembled a team of modeling experts to determine what software, engine, etc. should be used. Developed a 2d model of Yolo Bypass. Assimilated daily testing (500x500ft grid cells) data was sent to Ducks Unlimited to process impacts on waterfowl. Period of record: 1997-2012. Compared percentages of 16year record and compared it to larger 44-year record (which matched up well).

### **Questions:**

**What is the 500x500 metric?**

**Manny** - feet

**Huber -- One model just split two ways (referring to presentation graphic)?**

**Manny** - Yes, this was split up two ways for presentation purposes

**Petrea --What year was this model looking at 2010 or 2011? The scaling would be helpful for the model. Models don't catch every variable. There needs to be a mechanism, where maybe annually you compare data from the model from the year's variables to work on easements, or revisions etc.**

**Dave -- Was the model you had for 2011? Was 2011 the only year that you have aerial footage? It looks like the model is underestimating the actual effects of flooding...**

**David Katz -- Who is going to manage the operation of some of the mechanized gates? What is the responsibility of Bypass members?**

**Manny** – If the flooding is between Nov 1 and March 7<sup>th</sup> or 15<sup>th</sup>, the operational window, then the gates would operate. How we work with land managers on the ground will be done case by case in terms of easements, impacts, etc. in which individualized contracts and parcels are made

**Selby Mohr – In the southern end of the Bypass, the drainage depends on the tides. Consider climate change and sea-water levels for example, that's going to affect the run-off and drainage.**

**Manny** - Those are great considerations. the model range goes to Rio Vista and catches tidal influence, so tides were included into consideration in the models. We have also evaluated climate change and have worked that in.

**Selby - Building of the DeepWater Channel negatively impacted the flood carrying capacity of the Bypass.**

**Manny** - All that information is there, but I will look at different models that look at high flow implementation.

**Mike Deas – (model specific) The metric you're exploring to quantify your model should look at all the variables and errors. Models should reflect errors or adjustments from model to model and models should highlight what was closely accurate to the aerial frame etc. We need to see uncertainty of each model metric. How does the model quantify volume?**

**Manny** - I believe that has been taken into consideration. We didn't want to have our models be the limiting factor so we took a lot of that into thought.

**Nick Dedion – Have you layered reservoir storage into any of the modeling?**

**Manny** - Yes, we looked at gauge data. meaning that reservoir operation was built into

**Selby – Make a note to look at 1964 water year.**

**Manny** - I agree, it's going to look different. The models catch data within a 16-year time period.

**Betsy Marchand - Look at 1997 as well. That one's accounted for in the model.**

**Huber – As a trained geologist, I would note that dark blue should represent wet/flooded areas and brown should show the dry spots – not the other way around.**

**Manny** - That makes sense. We had that on a previous image, but I will note to change that.

**Can water control structures limit inundation? From the graphics it is not looking like there is a big difference?**

**Petrea – Is this on average over 16 years?**

**Manny** - This graph is looking at the rates of the different alternatives over the course of 16 yrs. The graph captures the increase in consecutive days of wetted areas (greater than or lower 20,000 acres)

**Martha - Are the models predicting a pattern of dry and wet?**

**Manny** - It depends on the year.

**Selby - Looking at the percentage increase – those are the numbers we are interested in.**

**Doug – With the graphs, is it possible to split between upper and lower Bypass so you can look at effects of Alt 4 for example?**

**Manny** - Yes, we have all the information and it's a matter of putting them into a format for Alt 4 for specific property owners in the north and south Bypass

**Dave - If you take a look at the instances where 20,000 acres are consecutively wet, those percentages are quite big in terms of impact.**

**David – To continue with that, you guys measure from Nov-March, you should measure Jan-March.**

**Chris – What about impact on nesting?**

**Jeff** – Ducks Unlimited is looking at food resources needed by waterfowl

**James** - In the study landowners will be able to see effects on their property

**Petrea – The scale is confusing for some of the graphs**

**Manny** - Units for scaling were done over two different graphs because of sizing

**Petrea – Zoom in on “case study” years to show the worst case for each year.**

**Martha – Does the EIS/EIR go into other uses of the Bypass. For YBF we have a school program and folks that enjoy the bypass recreationally.**

**Manny - Yes**

**D. Follow-up and Next Steps – Ben Nelson 3:42pm**

The team will consider how inundations (timing/location) affect waterfowl, recreation, education etc. They will be looking at construction impacts, and they encourage engagement and input from all stakeholder groups. The Bypass production model estimates economic effects to agriculture. The agencies want to maintain existing land use and will be back for future presentations and discussions.

Next steps –

Public Meeting June 29 at 6pm (Headquarters)

Meeting with subgroups

Meeting with Yolo Bypass Working Group in early fall before the release of the draft EIS/EIR

**Follow Up Questions/Comments:**

**TeVelde: Having years w/out floods would be bad. Control of excess water of flooding would be good for fish AND also the landowners.**

**Robin – Will mitigation be open for discussion once we know the impacts? Will mitigation be in the report because easements and monetary returns don't work for everyone.**

**Action Items**

1. Next Yolo Bypass Working Group meeting agenda should have an update on the Adult Fish Passage Project
2. Manny will get the water surface elevations at Lisbon Weir
3. DWR will work on graphics for individual landowners
4. DWR will document model error margins
5. DWR will look into questions related to letting fish use the Deep Water Ship Channel