

ADVISORY COMMITTEE MEETING SUMMARY

May 12, 2023, 11:30am – 1:30pm
Zoom Virtual Meeting

Meeting Objectives

- Provide recommendations to the Steering Committee for Scenario Development
- Reach a shared understanding of potential metrics for Managed Wetlands and Waterfowl Hunting

Action Items

Program Team

- KSN
 1. Provide outline of Phase I Report to the Advisory Committee.
 2. Investigate the potential effect of managed shallow wintertime inundation on maintaining crop insurance.
- cbec, SFEI
 1. Consider alternative Moulton and Colusa operable gate flows of 1,000 cfs and 1,500 cfs for full feasibility analysis.
 2. Consider metrics and modeling assumptions that reflect that the property is not usable when Moulton and Colusa weirs are overtopping and consider the early timing of evacuation of the duck blinds and inaccessibility and usability of properties if inundated over a certain depth.
 3. Identify thresholds for mortality for birds and salmon.
 4. Consider analyzing the WUA by disaggregating the total. Consider identifying and disaggregating timing, frequency, consecutive days of impact.
- Kearns & West
 1. In addition to outreach calls, briefings at existing associations and boards, consider polling individual landowners in the Butte Sink and Colusa Drain regarding potential scenarios for consideration.

Participants

1. Ben King, Landowner - Send information on water contamination and historic watershed context to Holly Dawley, KSN.

Recommendations

1. The Advisory Committee did not recommend the proposed concept to advance to the Steering Committee for full feasibility analysis. Proposed concept included:
 - a. 2,000 cfs notch overtopping flows at the Moulton and Colusa Weirs in the Butte subregion
 - b. 2,000 cfs notch overtopping flows at the Colusa Drain in the Colusa subregion. Concerns related to negative effects on agriculture and waterfowl hunting.
2. Members requested modeling notch overtopping flows at the above locations at 1,000 cfs and 1,500 cfs.
3. The Advisory Committee members suggested a variety of measures for the Program Team to consider for outreach to landowners, modeling, and Phase I: Feasibility Study.

Welcome and Introductions

Julie Leimbach (Leimbach), Kearns & West, welcomed all attendees. Advisory Committee (AC) members in attendance are listed in the tables at the end of this summary. Leimbach reviewed the meeting agenda and objectives.

Floodplains Reimagined Schedule

Presenter Chris Campbell (Campbell), cbec, reviewed the program schedule and timeline.

The Technical Team is currently exploring various concepts for river connections and developing the multi-benefit analysis. The team will apply the habitat suitability criteria to evaluate the benefits and impacts of potential actions.

Phase I will conclude in December 2023. The Program Team is working to develop Phase II.

Scenario Development

Process

As a reminder for meeting participants, Campbell outlined the four main stages of the Scenario Development process:

- Develop potential actions
- Pre-screen potential actions – Current stage
- Develop potential grouping of actions into scenarios
- Evaluate scenarios

Suite of Actions

John Stofleth, cbec, reiterated the types of actions proposed for the Floodplains Reimagined Program. These types include:

- River Connections
- Floodplains Infrastructure

- Land Management
- Habitat Restoration

Butte Basin

Stofleth presented the model results for the Butte Basin and posed the key question for the Advisory Committee.

Key Question: Does the Advisory Committee recommend the 2,000 cfs notch flow to the Steering Committee for a full feasibility analysis?

Based on a previous suggestion by the Advisory Committee, the Technical Team ran the hydrodynamic model showing the combined effects of notching both the Colusa and Moulton weirs. Stofleth shared map images depicting each weir separately and both weirs combined. Stofleth indicated the following effects of notching both weirs at a 2,000 cfs flow:

- Moulton Weir: Activation Sacramento River flow in drops from 76 ft. to 61 ft.
- Colusa Weir: Activation Sacramento River flow drops by 11 ft., or by about half

Stofleth also provided a comparison at the 3,000 cfs flow level, which expanded the inundation footprint further south and deepened the inundation in some areas.

Colusa Basin

Jenna Duffin, cbec, presented the model results for the Colusa Basin, and posed the key question for the Advisory Committee.

Key Question: Does the Advisory Committee recommend the 2,000 cfs notch flow to the Steering Committee for a full feasibility analysis?

Duffin explained that this potential action would involve a notch where there is no existing weir, yet it would still function similarly to Moulton Weir, using the Maxwell Pump Station as a potential river connection.

Duffin showed model results for both the 1,000 and 2,000 cfs notch overtopping flows with maps depicting areas of benefits and impacts for salmon versus waterfowl:

- Salmon habitat suitability – benefits overall
 - Modeling showed improved habitat at both 1,000 and 2,000 cfs.
 - The baseline scenario includes existing salmon habitat. However there are no salmon currently in the Colusa Basin.
- Waterfowl habitat suitability – impacts overall
 - Both flows resulted in depths exceeding optimal thresholds for waterfowl.
 - Duffin noted there is potential for implementing adaptive management, where flows would be held to a lower level to mitigate the impacts.

Salmon and Bird Benefits Analysis

Jesse Rowles, cbec, described the modeled predicted tradeoffs between waterfowl and juvenile salmon for 2,000 cfs notch overtopping flow. He shared inundation maps for salmon, waterfowl, and baseline conditions, where blue shades depicted improvement from the baseline conditions,

and yellow and orange shades indicated detrimental changes. Some improvements for one species category potentially worsened conditions for the other species.

Questions, Comments, & Approval Status

Overall, the Advisory Committee did not approve the recommendation of 2,000 cfs notch flows to the Steering Committee. They requested the Technical Team model the 1,000 cfs and 1,500 cfs notch overtopping levels. Questions and comments from Advisory Committee members are listed below.

Model Weir Modifications Concepts

- Requested clarification from the Technical Team for recommendation of a flow of 2,000 cfs instead of 1,000, 3,000, or 6,000 cfs. [Virginia Getz, Ducks Unlimited]
 - This decision came from much discussion. We wanted to simplify the data to be less overwhelming and believe 2,000 cfs to be a middle ground that creates benefits but also minimizes impacts in the Basins. 2,000 cfs is only for modeling feasibility and provides an upper bound for the notch overtopping flow. As we test scenarios and find some to be feasible, we have opportunities to optimize and determine what sort of flow would be the best case from a design and engineering perspective. [Program Team]
- Bioenergetics modeling was one of a few metrics mentioned for waterfowl. What does flooding do to food availability? [Getz, Ducks Unlimited]
 - Bioenergetics modeling is the traditional approach to evaluating habitat suitability. And it's not always consecutive days of impacts; sometimes the days or weeks of impacts happen at different times. The Bioenergetics Modeling is not complete at this time. [Program Team]

Butte Basin

- Landowners keep a close eye on prediction of Moulton Weir and Colusa Weir are running. When they see weirs are going to run, we don't wait for the weirs to run, they evacuate the property. The property is not usable when weirs are running. If Moulton runs at 10 cfs for a half day and drops back down, it's not a disaster. [Herkert, Flyway Farms]
- Operational notch overtopping flows ends too late in modeled results. Needs to end inundation earlier to prepare for agricultural planting.
- Recommends poll of Butte landowners for landowner support of exploring weir modifications for feasibility and surveying landowner interests and concerns. [Herkert, Flyway Farms]

Colusa Drain

- Recommend identifying a notch overtopping flow to model that results in less negative impacts to waterfowl. [Getz, Ducks Unlimited]
- Suggestion to add more complimentary efforts for exploration and modeling of benefits for managing Wallace Weir or Knights Landing Outfall Gates. [Getz, Ducks Unlimited]
- Recommendation to be cautious about operating Wallace Weir because it's frequently not functioning properly despite being used year-round as a collection facility. Hesitant to use

that facility for other purposes which might increase flows through the facility because it could be attractive to adult salmon.

- Recommendation to convene Ad Hoc Group about whether we need to analyze feasibility of improving flows first or if there are other limiting factors that should be addressed first. [Serup, CDFW]
- Recommendation to consider that agencies have spent a great deal of money and effort to keep juvenile salmon out of the Colusa Basin because there's no outlet for them once they are trapped there. [Bjarni Serup, CDFW]

General Model Suggestions

- Recommendation to evaluate benefits in a different way. Cumulative total of WUA is not helpful. Instead identify timing, frequency, consecutive days of impact. [Getz, Ducks Unlimited]
- Suggestion to develop more scenario analysis that optimizes flows from the different weirs to look at both salmon and waterfowl habitat. [King, Colusa Co. Resource Conservation District / Landowner]
- Suggestion to model a dynamic operable gate to allow for varying flows depending on the season in order to not adversely impact the ducks clubs during hunting season. [King, Colusa Co. Resource Conservation District / Landowner]
- Clarification about consideration of thresholds over which there's a detrimental impact that could be deal breaking or have a legal component to it, such as stranding or food access? Are you accounting for the concept of fish needing greater connectivity versus birds who can relocate by flying? [Justin Fredrickson, California Farm Bureau Federation]
 - There's a connectivity analysis done that includes managed fields. We don't have stranding potential in our suitability criteria but are open to it. [Program Team]

Baseline Modeling

- Clarification regarding existing conditions for waterfowl under baseline conditions without the concept of notching Moulton Weir. Were conditions worse for ducks under baseline than under the 2,000 cfs notch overtopping flow at Moulton Weir? [Herkert, RD 1004 and Flyway Farms]
 - Yes, under baseline conditions, water depth is over a foot which exceeds optimal waterfowl habitat depths. [Program Team]
- Clarification of the flood-up schedule assumed in the baseline modeling. Does the model include 6-10 inches of water on the rice fields by Nov. 1? Is this prior to the beginning of the concept of Moulton Weir notch overtopping flow operation? [Hans Herkert, RD 1004 and Flyway Farms]
 - The model includes assumptions that all managed wetlands are fully flooded by Nov. 1. Most fields are scheduled for a 10-inch depth. The notch would be fully open on Nov. 1. Prior to that date, we anticipate no additional impacts from notches themselves. [Program Team]
- Recommendation to investigate the impacts from Sites Reservoir. As a landowner in that area, I've experienced that the ability to perform groundwater recharge is impeded by

Davis Weir, and the area around the Colusa refuge was completely inundated. Recommendation to consider reservoirs could be set up south of Davis Weir where there are wetlands easements and duck clubs. Hope to also prevent future fish-stranding events. [Ben King, Colusa Co. Resource Conservation District / Landowner]

- Request the Technical Team examine the natural state, pre-Reclamation and pre-RD 108. A project that was abandoned during the Depression era could be the cause for the current water contamination by mercury and chromium in various locations. [King, Colusa Co. Resource Conservation District / Landowner]

Process and Information Sharing

- Request for Program Team to investigate the potential effect of an inundation program on maintaining crop insurance.
- Suggestion to poll landowners on topics such as perceived value of land and reasons for land ownership. Requesting more information before making a flow level recommendation to the Steering Committee. [Herkert, RD 1004 and Flyway Farms]
 - Agreement that additional context is needed. [Getz, Ducks Unlimited]
- Request for model results for 1,000 cfs and 2,000 cfs flow animations on the program website? [Roger Swanson, Wild Goose Club]
 - Yes, we will add a link to the website to view the flow animations on YouTube. [Program Team]

Managed Wetlands and Waterfowl Hunting Metrics

The Advisory Committee did not address this agenda item at this time.

Closing Remarks and Adjourn

Lewis Bair, RD 108, closed out the discussion by reminding Advisory Committee members that Floodplains Reimagined does not pursue a particular project. These discussions are intended to reach a shared understanding of what could be produced. The intent is to add value to people’s land rather than subtract from it. Landowners may ultimately decide what they want and don’t want to pursue. The Program Team is working to determine what information and results will help landowners.

Leimbach reviewed the action items requiring follow up, and then thanked Advisory Committee members for their attendance and adjourned the meeting.

Participants

Advisory Committee Members	
Affiliation	Name(s)
California Farm Bureau Federation	Justin Fredrickson

CDFW	Bjarni Serup David Pesavento
Colusa Co. Resource Conservation District / Landowner	Ben King
Ducks Unlimited	Virginia Getz
DWR	Jesus Esparza Mary Jimenez
FlowWest	Bethany Hackenjoss
Murdock Ranch, Gun Club / Foraker Properties	Erik Foraker
NCWA	Todd Manley
RD 1004 and Flyway Farms	Hans Herkert
River Partners	Julie Rentner Torey Byington
USFWS	Craig Isola Curt McCasland Jim Earley Tricia Bratcher
Western Canal Water District	Ted Trimble
Wild Goose Club	Roger Swanson

Program Team	
Affiliation	Name(s)
cbec	Chris Campbell Jenna Duffin Jesse Rowles John Stofleth Scott Wright
Kearns & West	Julie Leimbach Bethany Taylor
KSN	Holly Dawley
LWA	Eric Nagy
RD 108	Lewis Bair

SFEI	Alison Whipple Kelly Iknayan
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