

## FLOODPLAINS REIMAGINED ADVISORY COMMITTEE

March 22, 2023, 1:00 – 3:00 pm  
Zoom Virtual Meeting

### Meeting Objectives

- Input on Stressors, Opportunities & Constraints
- Recommendation of the Salmon Habitat Suitability Criteria

### Action Items

- K&W – Incorporate feedback on Opportunities, Constraints, and Considerations into the compilation of input and include in the Opportunities & Constraints Technical Memorandum.
- K&W – Bring the question of approval of the Salmon Habitat Suitability Criteria to the Steering Committee for consideration.

### Welcome and Introductions

Julie Leimbach (Leimbach), Kearns & West, welcomed all attendees. All attendees are listed in the table at the end of the document.

Leimbach reviewed the meeting agenda and objectives.

### Floodplains Reimagined Approach

#### *Timeline*

Holly Dawley (Dawley), KSN – Shared a graphic of the Floodplains Reimagined Program timeline the plan for scenario development and analysis in the Committee meetings.

Chris Campbell (Campbell), cbec – announced Scenario Development Ad Hoc Group meeting on March 30<sup>th</sup> in which the Technical Team will present baseline modeling and preliminary results for updated river connection scenarios.

### Opportunities, Constraints, and Considerations

#### *Presentation of Previous Stakeholder Input*

Leimbach reflected a compilation of opportunities, constraints, and considerations based on input from Floodplains Reimagined stakeholders and other related efforts in the region. The following is a summary of the items Leimbach discussed. Please see the full ppt for more detail.

Opportunities	
<b>Infrastructure</b> <ul style="list-style-type: none"> <li>• River Connections</li> <li>• Floodplain Infrastructure</li> <li>• Land Management</li> <li>• In-River Restoration</li> </ul>	<b>Regulatory</b> <ul style="list-style-type: none"> <li>• Programmatic and permitting assurances to protect landowners from take</li> <li>• Safe harbor agreements systemwide and transparent</li> <li>• Programmatic take coverage through Section 7 consultation</li> </ul>
<b>Enhancement Activities</b> <ul style="list-style-type: none"> <li>• Fish passage</li> <li>• Ancillary Infrastructure</li> <li>• Roads</li> <li>• Vegetation and Land</li> <li>• Operations and Maintenance</li> </ul>	<b>Economic</b> <ul style="list-style-type: none"> <li>• Financial incentive programs</li> <li>• Technical Assistance to landowners and operators</li> <li>• Cost analysis</li> </ul>

Constraints and Considerations	
<b>Existing Land Use</b> <ul style="list-style-type: none"> <li>• Voluntary and willing landowners and managers</li> <li>• Respect and work within:                             <ul style="list-style-type: none"> <li>○ existing land ownership and uses;</li> <li>○ indigenous land stewardship and cultural resources; and</li> <li>○ flood management functions, including operations and maintenance.</li> </ul> </li> </ul>	<b>Regulatory and Economic</b> <ul style="list-style-type: none"> <li>• Water Rights</li> <li>• Regulations and Permitting</li> <li>• Operations and Maintenance</li> <li>• Management Area Mandates</li> <li>• Burial Sites</li> <li>• Emergency Access</li> </ul>
<b>Biological</b> <ul style="list-style-type: none"> <li>• Fisheries</li> <li>• Wildlife</li> </ul>	<b>Infrastructure and Physical</b> <ul style="list-style-type: none"> <li>• Inflows from Sacramento, Butte, Feather</li> <li>• Geomorphology of the Basin</li> <li>• Engineering of Infrastructure and Control</li> <li>• Operations and Maintenance Needs and Costs</li> </ul>

## Breakout Groups

Kearns & West staff facilitated breakout groups to hear participants’ perspectives on omissions or recommended additions to the compiled opportunities, constraints, and considerations. The breakout groups were organized by the three subregions:-the Sutter Bypass, Butte, and Colusa Drain. The following section outlines the input from those breakout sessions which include not only comments on previously documented constraints and opportunities but also newly identified constraints and opportunities. The feedback from the breakout room discussions will provide the information for the Opportunities, Constraints, and Considerations Technical Memorandum for the Phase I Feasibility Report.

### Sutter Bypass

Leimbach facilitated the Sutter Bypass breakout group and Marlys Jeane, of Kearns and West, took notes.

	Constraints and Considerations	Name	Comments, Additions
<b>Previously Identified</b>	Sediment Deposition from Feather River	Steve Rothert, Barry O’Regan	Tisdale Bypass where it comes into Sutter; has been brought to attention by the landowner who lives right at the confluence.
	Fisheries <ul style="list-style-type: none"> <li>• Fish passage in the Lower Sutter Bypass (LSBR)</li> <li>• Entrainment into unscreened diversions</li> <li>• Exposure to predation</li> <li>• Adult stranding</li> <li>• Exposure to too warmer water temps</li> </ul>	Jim Earley	Carson Jeffries and Eric Holmes from UCD are conducting studies to understand Sutter Bypass and Butte sink water quality, food quality, habitat types; these things could be constraints based on the results of the studies (some habitats are better suited for salmon than others, but all habitat types are being treated equally); data constraints will be captured through these studies.
		Bjarni Serup	Weir 1 could be a constraint for those anticipating infrastructure change here because the alternative analysis for the project could result in no project.
		Mark Tompkins	Regarding the fish passage, it is important to distinguish between the differences in actions for adult vs. juvenile passage.
<b>Newly Identified</b>	Water quality (raised as an issue in other subregions but not here yet)	Brian Ellrott & Bjarni Serup	Regarding pesticides and water quality, contaminants at Sutter Bypass are unknown. Sampling should begin here to fill the data gap and conclude if there is a water quality issue.
	Timing and ocean entry for salmonids (out migration)	Rod Wittler	Applies to <i>all</i> subregions.
	Continued compatibility with farming	Paul Buttner	
	Respect existing land uses	Justin Fredrickson	
	Data needs/gaps	Bjarni Serup	Outstanding data needs for water quality, and fish passage infrastructure. The UCD studies by Paul

			and Eric should help close some of those gaps, but more would need to be done.
	Ownership of flood management, operation, and maintenance such that one agency is not solely responsible.	Jesus Esparza	Projects may need to be self-reliant, built-in capacity to do its own maintenance; a sedimentation issue might not be the same as a flood management issue, and the assumption is that DWR would only hear about or address a flood management issue if there was one.

*Butte*

Karis Johnston, Kearns and West facilitated the Butte breakout group and Heather McDonnell, Kearns and West, took notes.

	Constraints and Considerations	Name	Comments, Additions
<b>Previously Identified</b>	Hunting compatibility	Denise Carter	Public access north of Moulton Weir is difficult and frequent flooding in the area would complicate matters.
	Salmon Compatibility	Steve Zeug	The final data is needed to determine if habitat in the area offers greater benefits due to its increased complexity.
	Keep adjacent lands dry	Denise Carter	Overflow and accidental wetting of adjacent lands has to do with flows, stage elevation, and backwater accumulation.  Infrastructure such as fences are implemented each time flows threaten flooding of adjacent lands. More frequent flooding is a considerable risk to certain land use types.
<b>Newly Identified</b>	Information Needs	Roger Swanson	The map should show that the Moulton Weir flows both ways. What flow is required if you want to get the water out of the Sacramento River to Moulton Weir? Is the goal to get water out of the Sacramento River and onto the Moulton to rice field or flood plains?
	Prey density and species diversity	Steve Zeug	Consider the necessary flood duration for prey density to increase.
	Restoration sites	Hans Herkert	High flows will likely erode certain sites.
	Cost & Safety	Hans Herkert	Land erosion, levee wear, and rice field damage could cost a lot and access is inhibited when Moulton Weir is flowing which could possibly lead to emergency response access issues.
	Outstanding data needs for water quality, and fish passage infrastructure.	Bjarni Serup	The UCD studies by Paul and Eric should help close some of those gaps, but more would need to be done.

Colusa

Eva Spiegel, Kearns and West, facilitated the Colusa breakout group while Eric Holmes, Kearns and West, took notes.

	Constraints and Considerations	Name	Comments, Additions
<b>Previously Identified</b>	Ag and Managed Wetland Compatibility	Craig Isola	<p>The USFWS manages duck club conservation easements as migratory bird habitat.</p> <p>The Sutter Wildlife Refuge is located in Butte Basin. Within Colusa the three national wildlife refuges are: Sacramento National Wildlife Refuge, Delevan National Wildlife Refuge, and the Colusa National Wildlife Refuge</p> <p>Inundation timing, depth, rate, and duration, associated with hunting compatibility. All of these are associated with wetland management for migratory birds and terrestrial endangered species except for shoot level.</p>
		Lewis Bair	<p>Regional land use is well suited for food production and shallow water habitats. With inundation the lands could offer a positive nexus with groundwater recharge.</p> <p>Most infrastructure is to keep adults out. There are juveniles on the East side due to the river occasionally overtopping and connecting to habitat. There is no connectivity on the west side. Fish screens could be operated in such a way that juveniles temporarily get access to surrogate habitat at critical points in the season.</p>
		Holly Dawley	<p>Considerable infrastructure was constructed to prohibit juvenile access to the Colusa Basin, but if there is a pivot to support ongoing surrogate habitat efforts then there is potential to support regional groundwater recharge.</p>
		Tricia Bratcher	<p>Predation and lack of connectivity to the floodplain are of concern.</p>
<b>Newly Identified</b>	Endangered Species Act	Lewis Bair	<p>Colusa Basin does not have juvenile salmon access nor are there any listed species present. The listing of a species could lead to new constraints.</p>
	<b>Opportunity</b>	<b>Name</b>	<b>Comments, Additions</b>

<b>Newly Identified</b>	Data	Lewis Bair	Opportunity: Historic water quality data should be compiled on a seasonal time frame to better understand how current flow regimes integrate with anticipated actions.
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## Closing Remarks and Adjourn

Leimbach reviewed the action items, thanked participants for their participation, and adjourned the meeting.

## Participants

Steering Committee Members	
Affiliation	Name(s)
California Department of Fish & Wildlife (CDFW)	Bjarni Serup
Department of Water Resources (DWR)	Steve Rothert
Landowner	Denise Carter
National Marine Fisheries Service (NMFS)	Ellen McBride
Reclamation District 70/1660, Tisdale Irrigation District, Butte Slough Irrigation	Andy Duffey
United States Fish & Wildlife Service (USFWS)	Kaylee Allen

Advisory Committee Members	
Affiliation	Name(s)
American Rivers	Amy Merrill
Butte Sink	Roger Swanson
CA Farm Bureau	Justin Fredrickson
California Rice Commission	Paul Buttner
CDFW	Mike Healey Tricia Bratcher
Duck Unlimited	Dan Fehringer
DWR	Jesus Esparza Colin Hanley
Flow West	Mike Urkov

<b>NCWA</b>	Todd Manley
<b>NMFS</b>	Ally Bosworth Brian Ellrott
<b>RD1004</b>	Hans Herkert
<b>River Partners</b>	Torey Byington
<b>Sacramento NWRC</b>	Craig Isola
<b>TU/UNR</b>	Rene Henery
<b>U.S. Bureau of Reclamation</b>	Rod Wittler
<b>USFWS</b>	Curt McCasland Jim Earley Matt Brown

<b>Program Team</b>	
<b>Affiliation</b>	<b>Name(s)</b>
<b>cbec</b>	Chris Campbell John Stofleth
<b>Cramer Fish Sciences</b>	Steve Zeug
<b>Kearns &amp; West (K&amp;W)</b>	Julie Leimbach Bethany Taylor Eric Holmes Karis Johnston Eva Spiegel Marlys Jeane
<b>Kjeldsen Sinnock Neudeck (KSN)</b>	Holly Dawley Barry O'Regan
<b>Larsen Wurzel &amp; Associates (LWA)</b>	Eric Nagy Mark Cowen
<b>Reclamation District (RD) 108</b>	Lewis Bair
<b>San Francisco Estuary Institute (SFEI)</b>	Alison Whipple Bronwen Stanford