



Resource Agency Meeting Notes

Tuesday, July 9, 2013

ICF International

Sacramento, CA

Meeting Attendees

Curt Aikens	Yuba County Water Agency (YCWA)
Kelley Barker	CA Department of Fish and Wildlife (DFW)
Paul Brunner	Three Rivers Levee Improvement Authority (TRLIA)
Chris Elliott	ICF International (ICF)
Mike Hendrick	National Marine Fisheries Service (NMFS)
Jennifer Hobbs	U.S. Fish and Wildlife Service (FWS)
Sara Martin	ICF International (ICF)
Leah McNearney	CA Department of Water Resources (DWR)
Ric Reinhardt	MBK Engineers (MBK)

Attachments

Attachment 1: Action Items

Attachment 2: Resource Agency Meeting Issues Summary

Meeting Purpose

The Yuba County Water Agency, Three Rivers Levee Improvement Authority, Marysville Levee Commission, and Sutter Butte Flood Control Agency (regional partners) are partnering to develop a broadly supported Regional Flood Management Plan (RFMP) for the Feather River that aligns with the Central Valley Flood Protection Plan (CVFPP) and qualifies projects for future state and federal funding. Toward that end, the regional partners will develop and implement a plan formulation process with a strong strategic stakeholder outreach effort to strengthen inter-agency working relationships and engender region-wide understanding of integrated flood management goals, objectives, and needs. A key goal will be to promote a sustainable partnership structure to facilitate future implementation of mutually-beneficial projects. The intent of this meeting was to meet with resource agency representatives to discuss their involvement in plan formulation and their key concerns.

Meeting Notes

Welcome/Introductions

Chris Elliott welcomed the attendees to the meeting and kicked off a round of introductions. He explained that ICF is serving as the environmental consultant supporting formulation of the Feather River RFMP, and that the purpose of the meeting was to meet with the resource agencies and find out what their expectations and concerns are for the Feather River RFMP. The regional partners want to make sure that the RFMP is appropriately reflective of the needs of the resource agencies so that it is a useful tool.

Agriculture and Floodplain Habitat Compatibility

Chris noted that the region under consideration for the Feather River RFMP is firmly rooted in agriculture, and will continue to be that way. The regional partners want to ensure that the uses of habitat and agriculture are compatible not only from a capital improvement standpoint, but also from an operations and maintenance (O&M) perspective. There have been some disconnects between agriculture, capital improvements, and habitat conservation plans (HCPs) in the past, so the regional partners want to connect those efforts and bring the best information to the table in the RFMP.

Ric Reinhardt said that the regional partners want the resource agencies' input on the ecosystem problems that the RFMP will attempt to solve. He also noted that this is an opportunity to think about what kind of ecological objectives could be integrated with agriculture. Chris added that this is an opportunity for the regional partners and resource agencies to think beyond the single project/permit perspective and discuss what can be done for the long-term recovery of species and habitats. It will also be important to ensure that the RFMP is coordinated with other local and regional efforts (including the Central Valley Flood Protection Plan, the Feather River West Levee Project, and the Lower Feather River Corridor Management Plan).

Paul Brunner expressed optimism that the RFMP offers a chance to blend ecosystem benefits with agriculture in a way that the two might be able to support each other.

Chris asked the resource agency representatives to share their experiences and observations on what kinds of crops and agricultural practices are compatible with habitat uses, and what kinds are not.

Pesticides

A major concern voiced by Jennifer Hobbs (FWS) was agricultural pesticide use and its effects on wildlife. Though FWS does not have any listed species that would use floodplain agriculture, FWS is concerned about pesticide drift into adjoining terrestrial and aquatic habitat areas. Jennifer noted that the pesticides can accumulate in insects that use both agricultural and habitat areas, and Mike Hendrick (NMFS) observed that pesticides can become concentrated in shallow-water habitat where juvenile salmonids rear.

Jennifer said that FWS is also concerned about legacy contaminants in agricultural lands that are converted to habitat—that the benefits to wildlife must be balanced with the drawbacks of legacy pesticides. She noted that FWS does not consult on any of the pesticides that are approved by the EPA, so there is a dearth of information on how pesticides affect listed species. Mike mentioned that

NMFS has prepared some biological opinions on pesticides approved by the EPA. Mike will send Chris links to the NMFS pesticide BOs and Chris will share them with the group. The group brainstormed other sources for information about pesticide effects, including drinking water standards, standards set by angler groups, agricultural and urban tailwater standards, the Northern California Water Association, DWR, and the Sacramento River Watershed Program.

Ric Reinhardt (MBK) proposed that organic farming practices could be specified in the Feather River RFMP for habitat-compatible areas. Chris said that ICF would flag the pesticide issue for exploration in the RFMP—pesticide type, amount, and the potential for organic farming. He asked the resource agency representatives if they were aware of any conservation easements that go so far as to specify types of practices or pesticide use. Jennifer suggested looking in the Natomas Basin Habitat Conservation Plan (HCP).

Success Stories/Templates

Curt Aikens (YCWA) asked the resource agency representatives if they could share any success stories of farmers working with the resource agencies.

Mike mentioned that the farmers in the Yolo Bypass have a great relationship with the resource agencies; the bypass is farmed and also inundated almost annually as floodplain habitat. However, the farmers in the Yolo Bypass are limited almost exclusively to rice crops. Ric noted that rice crops have had the most success in compatibility with floodplain habitat, and Chris said that some of the NGOs involved in the Feather River RFMP effort agree. Mike agreed as well, explaining that rice fields are flat, so they do not cause any fish stranding issues, and they also foster food for juvenile salmonids. Jennifer noted that orchards could be managed in a different way to make them more productive as floodplain habitat; for example, farmers could allow some native species to grow on the floor of the orchard that would breed more insects and food for salmonids.

Kelly Barker (DFW) recommended that ICF talk with Tony Danna and John Anderson (Hedgerow Farms), who would be able to provide examples of things small farmers have done to lessen their effects on protected species. She knows there has been some success with *Arundo donax* removal in irrigation ditches and use of native hedgerows and buffers to reduce edge effects. She also informed the group that foraging habitat is a limiting factor for Swainson's hawk, so DFW is more interested in providing foraging habitat than riparian nesting habitat for them. Kelly will send Chris some new studies that discuss Swainson's hawk habitat suitability.

Kelly also noted that no species will benefit from typical "orchard" habitat, but that if the concept of what an "orchard" looks like can be redefined (for example, by planting a complex native understory beneath them), it could have benefits to some species depending on how it's managed.

Chris mentioned that Westervelt has fallowed rice fields in a pattern that is beneficial to giant garter snake. Jennifer and Kelly said they would be interested in hearing more about Westervelt's efforts, and Kelly offered to talk to Jeff Stoddard, the manager for the Yolo Bypass Wildlife Area, to find out more about the efforts they're making to ensure agriculture and habitat are complementary uses of the land.

From a flood management perspective, Leah McNearney (DWR) said that orchards can be a problem, since they attract rodents that burrow holes in levees. Kelly agreed that there need to be buffers between orchards and levees. Bringing in native predators or building "moats" are also options. She recommended talking to Dirk Van Vuren at UC Davis' California Vegetation Levee

Research Program and Peter Buck at SAFCA for more information on keeping rodents off levees. Ric suggested talking with Tom Engler and Steve Fordyce to hear their observations regarding what rodent control methods have worked for them.

Flood Management Approaches and Issues

The resource agency representatives were then asked to discuss which flood management approaches are preferable from a resource agency perspective, and which are not.

Vegetation in the Floodway and Setback/Adjacent Levees

Mike said that NMFS prefers the construction of setback levees to other levee repair methods. An ongoing issue for NMFS is the U.S. Army Corps of Engineers' (Corps) Vegetation ETL, but he observed that adjacent levee construction has been a successful compromise to avoid Vegetation ETL issues. Kelly observed that "compliance" with the Vegetation ETL could be achieved through a variance. Ric pointed out that levee vegetation is not as much of an issue on the lower Feather River, since it has wide flood plains and levees fairly free of vegetation. DFW would also like to see more setback levees.

Mike mentioned that the Central Valley Flood Protection Board (CVFPB) is concerned about too much roughness in the floodway, and noted that certain types of vegetation could be planted, such as willows, that bend under high flows and do not contribute much to channel roughness.

Fish Stranding

NMFS is also concerned about fish stranding, and there are some areas on the Lower Feather river where stranding is an issue (Abbott Lakes is an example). Ric cautioned that fixing the topography to eliminate stranding would cause effects to Waters of the United States. He suggested installing gates so that the problematic areas could be drained after floods. Kelley noted that fish stranding is an issue of concern for DFW as well. Kelley volunteered to speak with DFW's Feather River land managers and fishery folks for input on what they would like to see done in the system.

System Approach

Mike also believes that habitat restoration goals on an HCP scale will not be met simply through project-by-project mitigation. He recommends a system-level approach. Kelly agreed that the Feather River RFMP should take a system approach to habitat restoration—getting input from the resource agencies on repeated O&M issues and problematic areas and trying to come up with an overall solution. Jennifer added that FWS would like to see an "integrated system" that incorporates habitat as a matter of course, rather than simply a "flood management system."

Leah McNearney noted that DWR is on track to create an aquatic HCP for the Feather River, which will utilize the existing Feather River CMP.

Rock Removal/Restoration of Fluvial Meander Processes

DFW would like to see some rock removal on the Feather River. Kelly noted that there are some opportunities on the Feather River to restore some fluvial meander processes. Ric asked Kelley to let the regional partners know about any specific locations at which DFW is interested in rock removal, and suggested that the regional partners map how much rock is currently in the system, and where the agricultural intakes are. Leah noted that some baseline research along those lines was

performed for the CMP. Ray McDowell would know where that information could be found. Mike suggested checking the FERC relicensing website for Oroville Dam to see if that type of data was collected for the relicensing effort. Kelley noted that Adam Henderson has details on where bank swallows currently reside in the Feather River corridor. Kelly recommended that the Feather River RFMP incorporate the recommendations from the forthcoming bank swallow conservation strategy that will be distributed by the Bank Swallow Working Group.

Screening Diversions

Kelly said DFW would like the unscreened diversions along the Feather River to be upgraded and screened. Ray McDowell at DWR has some data about unscreened diversions. She explained that although there are some programs out there providing farmers with funding to screen their diversions, like the Family Water Alliance, the permitting process is often too daunting for the farmers to go through on their own. If the Feather River RFMP could set up a diversion screening permitting assistance program, it would be a big help. NMFS concurs that unscreened diversions are a problem on the Feather River system.

O&M Activities

Kelly noted that levee O&M activities have the potential to affect listed species. DFW would like to see maintenance activities permitted as a whole and perhaps even mitigated permanently, instead of every year or every three years when maintenance is necessary. Chris noted that such a program would be an incentive to the locals, who would be able to do their maintenance legally while participating in some sort of reporting program. Ric agreed that it is not sustainable to mitigate for O&M activities in perpetuity. He hopes, through this process, to create a common vision for ecological objectives that takes into account the necessary flood protection infrastructure maintenance.

Climate Change

Jennifer agreed with the earlier conversation in which Kelley advocated for restoration of river processes. She recommended planning for river process restoration at a regional level, and also recommended assessing the region for long-term ability to handle the potential effects of climate change. Discussion of climate change ensued, in which the meeting attendees agreed that there is not a lot of certainty on what future conditions will be for the Feather River watershed. Chris noted that a general prediction for Northern California is that there will be more direct liquid precipitation and reduced snowfall. Leah offered to check with DWR's climate change specialists to see what kind of data they have for the Feather River.

What Does Success Mean for the Feather River RFMP?

Integration with Other Efforts

Chris asked each of the resource agency representatives to describe what "success" of the Feather River RFMP would look like from their agencies' perspectives. Mike said he would like the Feather River RFMP process to coordinate with and directly tie into the local HCP, as NMFS does not have the staff availability to participate in both efforts. Mike said he will be attending the Feather River RFMP meetings, but not the HCP meetings. Chris noted that there is a large overlap between the efforts, but not a complete overlap, as the RFMP is the locals' plan, and the HCP is DWR's plan.

However, Leah said that DWR wants to incorporate as many of the local RDs and LMAs as possible in the HCP process.

Region-wide approach to O&M

Jennifer would like the RFMP to take a close look at what really needs to be maintained on the Feather River corridor, including maintenance activities that may not be necessary anymore, and the identification of activities that should be done, but are not currently done. There was some discussion about DWR offering the LMAs and RDs some permitting incentives to participate in the HCP process. Paul advised DWR that offering to fix their permitting/mitigation problems will be the way to get them on board.

Integration of Flood Management, Habitat, Agriculture, and Recreation

Kelley said DFW would like for the RFMP to be truly “integrated” and offer benefits to flood protection, species, recreation, and agriculture, reducing the need for O&M. She believes the Feather River offers the best opportunities for success in California.

Purchasing Land for Habitat Values

Kelley said DFW believes the regional partners need to “get ahead of the game” and start purchasing land to set aside for habitat functions, not waiting for funding attached to projects.

Next Steps

Chris explained that more focus group meetings will be held, and all the input will be compiled into the agricultural/environmental portion of the plan outline. ICF will then ask the resource agencies and others to review some key milestones as check-ins throughout the process. The regional partners want feedback from the agencies in the early stages.

Kelley asked if the plan would discuss potential legislative or policy changes. Chris responded that the specifics are not known as of yet, but there is a place reserved in the plan at this point for policy and practice recommendations.

Attachment 1: Action Items

Mike Hendrick, NMFS

- Send Chris links to the NMFS pesticide BOs. Chris will share them with the group.

ICF

- Talk with Tony Danna and John Anderson, who would be able to provide examples of things small farmers have done to lessen their effects on protected species.
- Look for more ideas on keeping rodents off levees from Dirk Van Vuren, Peter Buck, Tom Engler and Steve Fordyce.
- Contact Ray McDowell for information collected by the CMP (especially on where and how much rock is in the system and where agricultural intakes are).
- Contact Adam Henderson for details on where bank swallows currently reside in the Feather River corridor.

Kelley Barker

- Talk to Jeff Stoddard, the manager for the Yolo Bypass Wildlife Area, to find out more about the efforts they're making to ensure agriculture and habitat are complementary uses of the land.
- Speak with DFW's Feather River land managers and fishery folks for input on what they would like to see done in the Feather River system.
- Check with DWR's climate change specialists to see what kind of data/predictions they have for the Feather River basin.

Attachment 2: Resource Agency Meeting Issues Summary

Issues of concern

- Agricultural pesticide use
 - Solution: specify organic farming practices for habitat-compatible areas, require native hedgerows or buffers to reduce edge effects, look for more information on pesticide effects in recent NMFS pesticide BOs, NCWA, DWR, SRWP, and water quality standards.
- Legacy contamination in agricultural lands to be converted to habitat
 - Solution: balance benefits to wildlife with the drawbacks of contaminants
- Orchards attract rodents, which burrow holes in levees
 - Solution: construct buffers between orchards and levees, bring in native predators, build moats.
- Vegetation ETL
 - Solution: Variance, setback levees, adjacent levees.
- Fish Stranding
 - Solution: regrade, install gates.

Approaches that Work

- Rice crops have the highest success rate for being compatible with floodplain habitat; they foster food sources for salmonids and can be fallowed in a pattern that is beneficial to GGS.
- Setback Levees
- Adjacent Levees (to avoid vegetation loss pursuant to the Corps' Vegetation ETL)
- Willows and other low-roughness vegetation in the floodway
- Screen and upgrade unscreened diversions
- Ensure integration with other local and regional efforts

Ideas to consider for Feather River RFMP

- Orchards may be compatible with floodplain habitat if a complex native understory is added.
- Addition of foraging habitat for Swainson's hawk should be considered.
- System-Wide approach to habitat restoration.
- Incorporate recommendations from Bank Swallow Working Group's bank swallow conservation strategy.
- Rock removal
- Plan for the changes that will be caused by climate change.
- Offer incentives to RDs and LMAs (permitting assistance, programmatic permits)
- Take a programmatic/region-wide approach to O&M permitting
- Consider/plan for climate change