

# Summary of the Lower Feather River Field Trip Thursday May 13, 2010 -

## Logistics

Two vans were used to transport 20 people on a field tour of the approximately 20 miles of Lower Feather River Corridor Management Plan project area:

- One van (Van A) left from the Resources Building downtown and traveled up river from Nelson Slough Wildlife area on the western (right bank) levee.
- The Second van (Van B) met at the JOC and traveled down river from the Yuba City Boat Ramp or Mosquito Beach on the western (right bank) levee.
- The stops made in order from Yuba City down river south and discussion topics were:
  - Shanghai Bend -DFG - Wildlife habitat discussion;
  - Boyd's Pump – Discussion on land, since boat tour was cancelled due to low river flow;
  - Abbott Lake -LD1 & DFG & River Partners discussion on riparian restoration;
  - O'Connor Lakes -LD1 & DFG & River Partners restoration discussion;
  - Nelson Slough DFG Wildlife Area - Mature Riparian Habitat & silting conditions issues discussion;
  - One additional stop made at the southern end of the Nelson Slough Wildlife Area to discuss the silt sediment on flats for future removal.
- Travel back to JOC, arrived at 4:00 pm.

## Workgroup Summarized Discussions

The “planned” and accomplished objectives on the May 13 Field Tour:

- 1) Provide workgroup members with a first-hand view of the existing river, channel, floodplain, levee, and adjacent upland conditions.
  - a) This objective was partially obtained. Since the tour was only on the right bank, and no boating river tour was done, only a third of the area was observed. The right bank levee conditions and the restoration work done by the River Partners on two DFG Wildlife Areas were seen.
  - b) The Workgroup did talk about methods used for riparian vegetation restoration and the concerns of the levee districts for maintaining river flows in the channel. The natural riparian vegetative species composition and threatened wildlife species were also discussed.
  - c) There was some discussion on the river channel changes over the past two decades and work that has been done to widen the channels with setback levees.
- 2) Acquaint workgroup members with existing ecological conditions, including sensitive ecological communities such as shaded riverine aquatic habitat, riparian forests, and habitat for special-status species and discuss opportunities to enhance ecological conditions through active ecosystem restoration.
  - a) The Workgroup discussed the merits of creating wildlife habitat and natural riparian habitat. They also discussed increasing channel flows by building setback levees and then the detriments of increasing the vegetation composition within the channel to possibly decrease the river flow or raise water stage elevation (reducing freeboard), or both.
  - b) Discussion on the roughness factors from different planting schemes was noted. The levee district staff pointed out the fine line they walk between meeting their clientele's needs and meeting the State and federal criteria for channel and levee maintenance.

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- c) Several times along the tour route discussion occurred on the special-status species, both flora and fauna. In addition, the DFG pointed out other species of note within the region and the importance of vegetative plant diversity and communities to support a diverse wildlife population.
  - d) The restoration work discussion by the River Partners within the State DFG Wildlife Area's was a highlight of the tour. These discussions included species composition and planting patterns to enhance river flow.
- 3) Acquaint workgroup members with factors currently affecting channel conveyance and discuss opportunities to enhance conveyance through structural (e.g., levee improvements) and non-structural (e.g., roughness reduction) measures.
- a) The Workgroup discussed whether any restoration is appropriate in the setback areas given local investment toward improved flow capacity and the local agency assertion that any restoration will increase flood stage and increase flood risk over no restoration (others do not agree---this is one of the contentious issues to be resolved through the planning process).
  - b) Oroville water release was discussed by Casey Cepello (Van B - FloodSAFE Environmental Stewardship & Statewide Resources Office). This discussion included the various release flow, water temperature, and the accident at Edward Hyatt Power Plant at the base of the Oroville Dam on July 23, 2009.
  - c) The levee setback benefits were discussed and all agreed that future setbacks would be almost impossible to accomplish. There were modifications to existing levees mentioned that might result in less maintenance and redirection away from conditions that cause levee erosion.
- 4) Acquaint workgroup members with factors currently affecting channel maintenance (including USACE levee vegetation standards) and discuss opportunities to enhance channel maintenance activities and meet USACE guidelines.
- a) The Workgroup discussed how the restored areas will be maintained to ensure flow capacity is preserved including identification of maintenance funding sources and standards, especially on DFG lands (a subcommittee is working on this).
  - b) Whether it will be possible to provide a continuous low-roughness channel for the entire 20-mile length of the study area, to preserve conveyance capacity even with dense restored vegetation in the balance of the channel, and how wide such a low-roughness channel should be (future modeling will help answer this).
  - c) The Workgroup discussed the USACE vegetation variance. The Workgroup observed mature trees on the levee slope and how these trees would be removed on the current policy.
  - d) The discussion also included future maintenance needs to be a regular cycle. Emphasis on the importance of design of vegetation restoration plantings need to be done on a regular cycle to keep the level of maintenance at a manageable level.
- 5) Acquaint workgroup members with other uses (e.g., agriculture and recreation) within the existing channel and discuss opportunities to incorporate, and enhance where possible, these uses where compatible with enhancement of ecological conditions, channel conveyance, and channel maintenance.
- a) The Workgroup had several discussions on the orchards and other agricultural fields adjacent to the levees. The main point of discussion usually dealt with the restriction (or roughness factors) and impacts of different kinds of native versus agricultural plant species on stream flows.
  - b) Recreation opportunities were observed and discussed, including hunting, fishing, hiking, boating, picnicking, swimming, and birdwatching. Recreation use was observed near Yuba City on the levee, also at the Shanghai Bend Falls and another at Boyd's Pump Boat Launch. The

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levee appeared to be used for walkers and joggers near the city, while the other use was by American Shad (*Alosa sapidissima*) fishermen. In addition, at many of our stops we observed shoot gun shells from bird hunters that use the area.

6) Document additional future concerns for work group consideration.

- a) Each van carried four (4) large scale maps, (prepared by AECOM) for highlighting potential issues and solutions to observed issues on the tours. Most people felt the maps in the handout and the large scale maps were beneficial to tour, but little was done to document the discussion on the maps.
- b) A major discussion in Van B was on the restrictive flow within the channel at river mile 16. The Workgroup noted that below river mile 16 the river becomes narrow and that this point appeared to be a “choke point” in the channel. This spot is downstream from the O’Connor Lakes Wildlife Area and no State own properties appear to be in this river stretch.
- c) It might it be possible to let silt drop out of the system where the flood flows slow at Nelson Slough before entering the Sutter Bypass, where silt can be removed easily without having to dredge the Bypass (this concept will be studied).
- d) What types of vegetation are appropriate in the low-roughness flow channels (River Partners has been doing research and has some recommended plant types that lay over during high flows).
- e) Whether the Star Bend/O’Connor Lakes floodplain overland flow channel should be lowered and connected to the Feather River thalweg upstream and downstream to maximize fish passage and rearing habitat, and to minimize predation and stranding (regulatory agency representatives seemed to like the idea).
- f) Modeling of flow conditions at various locations, and the importance of matching the planned vegetation to the soil, hydrology, and flow conditions at various locations (high flow areas support different vegetation than slower-moving areas, and areas with different flow conditions can occur in close proximity to each other).

The Workgroup’s discussion points and issues are listed above. There was no consensus on proposed management actions at the end of the tour. The Workgroup was asked to consider proposals for the next Lower Feather River CMP meeting.

Overall, the tour went well! The lack of the boat tour was a disappointment to the folks on the tour. We had at least a half hour to one hour discussions at all six of the stops. Most of the Workgroup felt the discussions were enlightening and provided useful information applicable to future management decisions.

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### Attendance:

Earl Nelson	FPCP DWR (DWR)
Tony Danna	FMO DWR
Andy Atkinson	CDFG – North Central Region
Steve Beckley	Sutter Yard, DWR (met at Boyd’s Pump only)
Erin Brehmer	FPCP DWR
John Carlon	River Partners
Stacy Cepello	FloodSAFE Enviro Stewardship & Statewide Resources Office
Peter Coombe	DWR - Northern Region (met at Boyd’s Pump only)
Ken Cumming	National Oceanic and Atmospheric Administration
Bob Duffey	DWR – Inspections, (met at Boyd’s Pump only)
Nancy Finch	DWR – Legal Counsel
Steve Fordice	River District 784
Terri Gaines	FESSRO DWR
Jeremy Goldberg	DWR – Legal Counsel
Gary Hobgood	CDFG
Marti Kie	FPCP DWR
Andrea Mauro	CVFPB
Michael Perrone	DWR
Helen Swagerty	River Partners
Jeffrey E. Twitchell	Levee District 1
Matt Wacker	AECOM - Consultant
Peter Coombe	DWR - Northern Region
David Wright	FPCP DWR