Design Team Meeting Notes

07 June 2017

Attending in person: Mike Dixon (Reclamation), Trevor Morgan (DWR), James Lee (HVT), Robert Stewart (Reclamation), Phil Fishella (USFS), Chris Losi (USFS), Brandt Gutermuth (Reclamation), Robert Franklin (HVT), Todd Buxton (USFWS)

Attending via WebEx: Paul Uncapher (NSR), Aaron Martin (YT), Andreas Krause (YT), Ken Lindke (CDFW), Connor Shea (USFWS), Mark Smelser (CDFW), Damon Goodman (USFWS), Ben Snyder (HVT/McBain Associates), Wes Smith (NMFS), Corrine Marzallo (USFS), Brian Bair (USFS), Fred Meyer (HVT/McBain Associates), John Bair (HVT/McBain Associates)

The meeting opened with introductions, as per the norm. Mike D. provided an overview of the conceptual implementation plan for the next few years and solicited input on realistic time intervals for various steps of the design process in order to build out a Gantt chart for the upcoming round of designs.

- A meeting to discuss basic existing conditions and discuss constraints and opportunities at Oregon Gulch and Sky Ranch will be held on July 26.
- Aaron stated that doing site visits near that time would be valuable, and it was suggested that a two day meeting to get people out on site would be a good approach.
- The federal and Yurok Tribe design teams said that it would be reasonable to have a meeting to discuss loose conceptual design alternatives in September, and that conceptual design reports to be reviewed in a value engineering study could be ready as early as December.
- Somewhere between six and several months would be appropriate for the development, review, and finalization steps of engineering designs.
- Someone offered that the Gantt chart should include constructed site tours, which have been added at the end of construction.
- Additional comments included the adequacy of our ESA consultation for work on USFS land; Wes asked that he and Justin Ly be included in discussions of coho stuff.
- Andreas said that, as part of the data required for design development at Oregon Gulch, further mercury sampling was likely required, as well as possibly surveys for mussels and lamprey.

The remainder of the meeting focused on a discussion of the advanced conceptual design for Dutch Creek. Chris L. introduced himself to the group because he has not participated before.

Trevor presented an overview of the design, which design focuses on some lowered floodplains to get water up onto the runway bar, the upper of which inundates at around 2000 cfs. The downstream floodplain would be about 2' deep at 4500 cfs. There is a constructed medial bar to force water into a new meaner, and an area of channel expansion downstream where the bed will likely aggrade.

- There were questions regarding the limitations imposed by bedrock. There is a possibility that the excavation of the forced meander might just reach bedrock.
- The access road was discussed. It would essentially follow the previous alignment proposed in the Lower Dutch Creek Project.
- The net spoils for the existing design would be approximately 55k yds^3.

Robert S. provided an presented the inundation modeling for 2k, 4.5k, and 8.5k cfs. There was further discussion of the design.

- Chris L. asked about when juvenile salmonids were present in the river and the relative frequency of inundation at that time of year.
- Brian inquired about the construction of lowered floodplain vs a side channel.
- Todd posed the question of how the floodplains will evolve over time – will they maintain themselves as low-flow inundated floodplains?
- Andreas asked if the mid-channel bar would backwater up to the upstream riffle, as there are data showing positive benefits to spawning riffles when backwatered.
- Robert S. characterized the floodplain upstream of the meander as, among other things, a relief valve to take stress off of the plug in the old channel.
- There was discussion of how the riffles will be constructed (i.e. what materials would be used)
- Andreas asked about the upper and lower portions of the project, specifically proposals to improve fish passage at the Dutch Creek delta. Trevor reminded the group that the upstream portions of the project were very contentious within the design team. Mike D. reiterated that the Lower Dutch Creek features had been tabled to be considered during the design development for Evans Bar. Chris L. brought up the need to consider reasonably foreseeable future actions in environmental assessment if there is a chance of doing channel rehab or watershed work at those other project areas later.
- Robert S. highlighted depressions that were built into the floodplain to serve as fine sediment traps, which should promote riparian recruitment.
- There was a big back and forth about spotted owls, which was tabled for now because it was irrelevant to most of the group.
- Conor brought up the need to think about how the channel will evolve and to set explicit quantitative or at least qualitative objectives accordingly. Maybe 5 years is a reasonable time window of prediction, per Conor. Dave G. thinks this is reasonable. There was acknowledgement among the group that the Dutch Creek area is in a bedrock chute so dramatic channel evolution is unlikely.
- There was a lengthy discussion of the idea of using additional fill to further raise the channel bed, and concern about the FEMA risks, though these are minimal here due to the lack of private lands. Brian thinks we should be pursuing raising the riffle crest elevation as part of this design, as this is something that he has done in other locations. There was much back and forth about how to do that without using oversized materials. Wes, Trevor, and Robert said they would look into aggrading the riffles as an alternative. **Note**: Robert S. took a quick look at the riffle areas and to raise them a couple feet would use very little of the spoils that still need to be placed.

Mike D. said he would get a 2-day meeting scheduled to do current conditions assessment presentations at a joint IDT/design meeting, followed by site visits. Further iterations of the Dutch Creek design will follow in emails as it is refined, and DWR will provide an update at the July meeting. The YT and Federal teams will be providing early current conditions overviews for Oregon Gulch and Sky Ranch at that meeting as well.