

Design workgroup
10 August 2021

Attendees

Hoopa: Justin Alvarez, Chad Martel, Fred Meyer,
USFWS: Conor Shea,
NOAA: Roman Pittman,
DWR: Trevor Morgan,
CDFW: Ken Lindke, Mark Smelser

Update on Chapman Ranch-

The restoration site was prepped for evacuation on Friday August 6th after an evacuation warning was issued for Junction City. Machines were gathered to clear spots and small equipment was removed from the site, super sacks and channel plugs were removed in case we won't be able to return soon. The effort was to remove potential boating hazards and leave the site in a ready for winter condition. Over the weekend as the fire moved closer heavy machinery was moved off site and staged at Eagle Rock quarry. At this point we are in wait and see mode, with a multiple week delay expected. The crews will reevaluate each week.

Design Team Updates

State/Yurok

Trevor- Sawmill has 2 designs working toward 30% design level

For Evans Bar the design team developed some rough conceptual designs, some of which have been sent to adjacent landowners and there will be an in person meeting in early September.

Hoopa

Fred For Upper Connor Creek we have gone through conceptual design process and existing conditions reporting and now are moving the 2 alternatives through 30% design and will be ready for review in mid fall.

Phase 2 restoration review SOW

Is this focused on sites post phase 1 review or all restoration sites?

The contractor should be given the phase 1 review and look at the recommendations and how it has been incorporated

The phase 1 review was focused on how we are doing rather than what we were doing and didn't have recommendations to the design teams, the biggest outcome was the need to do the synthesis reports.

Biggest take away for design

- put an emphasis on documentation including design process
- this kicked off a more consistent framework and outline for reporting

Documents the contractor should review

TRFES

Phase 1 review

Channel rehab effectiveness

Boyce- Rehab multi flow habitat

Boyce- single flow habitat assessment

Channel design guide

LWD synthesis- still in draft

Riparian encroachment

Cottonwood recruitment

Fine sediment synthesis

Capacity synthesis -in review

Juvenile synthesis may show effects of restoration -part in review

Channel Complexity Synthesis- still in draft

Bed Mobility and Scour report

Seed dispersal

Large Wood Effectiveness report funded in 2015 may be in limbo

River corridor management plan

Site habitat assessments

McKenzie stage zero (Powers)

Considerations

- We need to take care when pulling info from other systems, with the Beechie and Pess they are based in PNW and push for multi thread channels, we need to be careful when looking at contractors that they don't assume our system is more reflective of systems they are familiar with which have different underlying mechanisms
- How will the SAB be involved in the development of this document?
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Items for SOW

Restoration approach

- We have a few different approaches to restoration; what has been effective/most effective
 - o Immovable hardpoints ie moving the mainstem and plugging it or large rocks and wood, other features with oversized substrate
 - o Use of off channel features that will be isolated at most flows and how effective have they been
 - Do these off channel features remain beneficial after they start to evolve or fill in
 - o Relocating the river rather than letting it do that itself through time, is this aggressive approach more effective
- We made the decision to go big part way through the suite of restoration sites. In a longer term view does the extra effort create more gains than the smaller efforts after 5/10/15 years.

- This could be addressed with an analysis of trajectory.
- Was going big the right move?
- What scale of project is most effective
- Are we building manicured gardens or building rivers that are self maintaining. Are we putting ourselves in a position to need to return to maintain these sites
 - If both are beneficial are we striking a good balance between those elements
 - Have we been successful with those elements
- Are there aspects of the TRFES which we have moved past with our current understanding
- What actions have been most successful at restoring river process not just habitat when we leave the site.
- Should we be revisiting old sites and if so which ones
- If we revisit what actions would be best to incorporate into the new designs
- What are the most cost effective actions
- What should the restoration actions prioritize, what lifestage, should we maintain a liked feature at the expense of restoring riverine process or other aspect/feature?

Interaction of Flow and Habitat

- Have we successfully scaled the restoration and channel to the flow regime that we have
- Are the habitats we are creating available (wet) at the appropriate times when fish are present?
- Are the restoration actions being successful but our hydrology needs to be improved to match.

Restoration location

- Program is operating under the assumption that rehabbing the 47 sites will recreate the fish production. Are the restoration sites enough to restore the fishery. Should we look at broader actions (watershed), mainstem below the NF trinity.
- Have we been successful at blending headwater and mainstem conditions due to the dam
- Would enhancing tributaries to recreate the headwater condition be a better approach
- Relative effort in mainstem vs watershed restoration.

Riparian

- Have the floodplains created a more desirable riparian condition, has the riparian expanded beyond a thin strip into a broader patchy forest.
- What features create the best conditions for attaining our target riparian condition

Geomorphic

- Effect of gravel augmentation and potential new sites to do injections
- Effect of mobile bed on river features/ river scaling to flow