

NorthWestern Energy

Thompson Falls Project - Meeting Summary

May 13, 2015
11:00 AM – 1:45 PM

Type of Meeting: Thompson Falls TAC Subcommittee Meeting to Discuss Current and Future Work in Support of the Thompson Falls Upstream Fish Passage Facility Project

Location: USFS Lolo National Forest - Plains Ranger District, Plains, Montana

Attendees: Brent Mabbott (NorthWestern), Jon Hanson (USFS), Wade Fredenberg (FWS), Ladd Knotek (MFWP), Ryan Kreiner (MFWP), Kristi Webb (New Wave), Ginger Gillin via phone (GEI Consultants)

I. Topics for Discussion

Jon Hanson – Are we on track with 5-Year monitoring and reporting requirements?

Wade and Brent – Yes. The 5-year reporting requirement was modified with approval from USFWS and FERC. The annual reports have provided a comprehensive evaluation of the data collected from the ladder since 2011, so no 5-year report is necessary. The reservoir monitoring is ongoing with the recent graduate study that is scheduled for completion in 2016. The TAC will review the results and discuss non-native species management, etc. and future reporting will be completed in 2020.

- Use of PIT tag arrays?

Currently one remote PIT tag array is operating at the mouth of Thompson River. Two additional remote arrays will be installed this summer (2015): Fishtrap Creek and West Fork Thompson River in support of Jeff Glaid's graduate study.

No proposals to expand usage of remote PIT tag arrays at this time.

- Can we evaluate bull trout movement in Little Joe Creek with a remote array like in Thompson River?

Too few bull trout to make this worthwhile right now...

- Bull trout Genetics

The group indicated strong support for continuation of annual funding for maintenance of the genetic database for bull trout. Abernathy sends a notice to the biologists when the baseline dataset for a population needs to be re-sampled. Brent asked if there should be an

annual budget set aside for maintenance of the genetic database (for sampling and analysis). The group indicated that at this time, the annual proposal process for TAC funding is adequate.

General comment on genetics: Genetics for bull trout works well. There is a strong fidelity to Regions with bull trout genetics.

- Where are the SMB going? What is the overlap with juvenile salmonids/bull trout?

In 2015, NorthWestern will be floy tagging SMB if (or when) they ascend the ladder. MFWP concerns do not include colonization from passage over the Thompson Falls Dam. Overall consensus is that the number of SMB at the ladder (1,356 fish) is insignificant to the existing population in the Lower Flathead River and other sources from upstream (e.g. Flathead Lake).

If there is a repeat of a large number of fish passed upstream of the Thompson Falls ladder in 2015, there is interest in seeing where these fish are moving (e.g. sampling in the lower Flathead River). There is a significant temperature difference in the summer between the Clark Fork River and the lower Flathead River. Currently, SMB are not upstream (in the CFR) upstream of the confluence with the lower Flathead River. Peak summer temperatures in the lower Flathead River reach 25-28 F and in the lower Clark Fork River (at the ladder) reach 21-23 F.

The group identified a need for additional discussions between MFWP and USFWS regarding overall management direction and objectives for nonnative and native fisheries. There is a lot of emphasis on native fisheries (e.g. bull trout), but then the reservoirs are more suitable for non-native fish. This topic concerns volitional fish passage at the ladder, which is the ultimate goal and mandate in the Biological Opinion, and management decisions in the area regarding SMB, NP, LL, etc.

Wade will start a conversation between departments (MFWP, USFWS) regarding the overall goal of volitional passage and the concerns of nonnative species. The departments need to evaluate the current status and look at an adaptive approach, which may be species specific, in order to come to an agreed direction for management.

NorthWestern's objective is to continue to run the ladder and monitor fish until relicensing in 2020. In 2015, NorthWestern is evaluating fish movement through the tunnel for future volitional passage. In May 2015, 285 LS SU were released and all but 7 fish (3 mortalities, 4 live) moved through the tunnel. Additional testing will continue.

There was some discussion on WE. WE move in the spring to spawn and so far have not been observed in the ladder. After July, WE move downstream and are not observed near

the ladder. Concerns of WE moving upstream are minimal when discussing volitional passage.

One option at the ladder is to install a camera that would identify species. Wade indicated that with volitional passage, it would be good to know if BULL are moving through the system.

- What will the new influx of LL into the Thompson River mean for bull trout?

This is another topic where MFWP and USFWS need to have a conversation.

Robert Al-Chokhachy has just submitted a draft paper on the topic of LL displacement or replacement impacts to BULL.

Passage of LL at Thompson Falls Dam is not significant (under 300 fish in 4 years) compared to the existing population in the Thompson River that is likely around 20,000 fish.

There was a long discussion on evaluating brown trout expansion into cold water systems and management tools. It is not clear if the Thompson River is the location where further experiments or work would be recommended.

Avista implemented suppression efforts targeting brown trout in the EF Bull River. Avista is currently continuing to monitor and maintain results. The brown trout numbers were down but there was no numeric increase/response by WCT or BULL in the area.

MFWP will be sampling Fishtrap and WF Fishtrap this summer 2015. The last sample was completed in 2010/2011 and sampling is on a 3-4 year cycle. This will help better identify and quantify LL in the Fishtrap drainage.

Brent – if going to preserve areas, what do we need to do to preserve areas? Ladd indicated that the management tools for brown trout need to be refined. Brown trout may be easier to address than brook trout but untested.

Brent – is it worthwhile to hire someone to develop a study plan and design? Wade – what about USGS? Post-doctorate with experience to set up design. Brown trout invading in cold water systems – see in Morrell Creek, Kootenai, Wenatchee River

Brown trout experiments? Evaluate mechanisms that facilitate brown trout presence –The group discussed the importance of having a study design that was focused in application for management.

Ladd will contact Pat Saffel and Mark Deleray to let them know there is interest in discussing some applied research on brown trout invasion.

Wade – Robert needs to finish paper (just out for comment), get into final form and then use the document to start a larger conversation.

Likely revisit topic in Fall 2016

- Where are PEA in the lower Clark Fork River? First PEA in ladder on May 13, 2015

PEA numbers are down in Noxon, but still greater than LS SU numbers. LS SU ascend the ladder, so why aren't PEA ascending the ladder. PEA used the Denil ladder in 2001 (2,808 fish in May with USGS gage near Plains recording streamflows between 22,200 and 28,500 cfs). To date, PEA not common in ladder.

PEA – numbers in Noxon trending down since 2000. Maybe PEA were being recruited from Flathead Lake and the decline in the population in Flathead Lake has also reduced the recruitment and numbers in Noxon. PEA are not common above the lower Flathead River and are not commonly observed electrofishing upstream of Thompson Falls Dam in the CFR.

No action proposed.

- Where do LS SU go after being passed upstream?

Resources and funding is focused on bull trout (and salmonids) versus LS SU. Interesting questions, but not necessarily effective use of resources and allocation of time. No action proposed.

- Where do MWF go?

USFWS recommended implant PIT tags in MWF. Brent indicated FDX PIT tags will likely be used due to the PIT tag array in the Thompson River indicates detection for FDX is greater than HDX.

Group agreed to PIT tagging MWF at the Ladder in 2015 and see if these fish are detected in the Thompson River.

- Will fish move upstream through the tunnel after released into Pool 48? (What's the velocity in Pool 48?)

USFWS BO identifies goal for volitional fish passage at Thompson Falls. NorthWestern is currently evaluating fish movement through the tunnel this year. The tunnel is approximately 10 feet in length (4-foot diameter). Velocity is no greater than what is running through the ladder.

- eDNA – does it have application in the Thompson River drainage or other areas?

Wade – M. Young has a proposal (\$75,000) for a 3-year study. Young wants eDNA for all of western MT (crowd sourcing). FWS in favor of supporting/funding project but wants focus on bull trout core areas. Bull trout landscape is outlined by core areas and from a management perspective it would be more beneficial to obtain a comprehensive survey of the core areas.

Ladd – Application of eDNA is limited (although it looks promising). eDNA has been used in one field trial on 3 streams. Ladd is in the process of designing a study to evaluate the sensitivity of eDNA (the effects of fish density, flow level, persistence of DNA, spawning versus non-spawning signals and variability, etc.).

Group agreed that application of eDNA to the Thompson River is pre-mature. There is still more information needed on limitations of technique and sensitivity of the technique.

II. Other Topics?

Jon Hanson – Are there any habitat projects out there to benefit bull trout?

Ladd has a couple of projects:

Upper Trio Lake - Headwaters of North Fork Fish Creek (Mineral County): Brook trout present and looking to suppress. Size is approximately 12 acres. Need someone with expertise to address environmental assessment (EA) for rehabilitation project. Ginger mentioned experience with EA and potential to assist. Another option to approach Pat Clancy when he retires to assist (has the right experience and understanding of project requirements).

Moore Lake – Headwaters of Little Joe Creek: Needs rehab to benefit bull trout. Bull trout below lake.

Challenge is that the “easy” projects have been completed.

Brent – If there is a project that the biologists can identify, NorthWestern has funding to assist.

ACTION ITEMS:

- NorthWestern will PIT tag MWF at the ladder in 2015.
- Ladd will contact supervisors regarding discussions on brown trout.
- Wade will start conversation within USFWS and with MFWP on larger management of nonnative and native fisheries to help guide decisions and projects in the Thompson Falls area.