

Bull Trout Working Group

Meeting Notes Thursday 1:00-3:00 PM (4/13/2023)

Present: Aimee Taylor (MCFEG), Katy Pfannenstein (USFWS), Steve Caromile (WDFW), Joel Hubble (consultant), Kathy Robertson (USFWS), Bob and Sue Mecklenberg (Gold Creek Valley land owners), Todd Newsome (YN), Russ Byington (YN), William Meyer (WDFW), Craig Haskell (USFWS), Caller 1, Jason Romine (USFWS), Kathryn Furr (USFS – YBIP Coordinator), Joel Freudenthal (Yakima Co.), Gary Torretta (Naches Ranger District USFS), Eric Bartrand (F&W), Scott Wiley (USBR), Andrew Mattala (YN), Sam Scherck (MCFEG), Mitch Long (KCT), Kayla Gallentine and Alex Conley (YBFWRB), Scott Kline (WDFW), Trevor Hutton (WDFW), Conner Cunningham (USFWS), Brittney Beebe (USFWS), Zac Zacavish (MCFEG), Scott Kline (WDFW), Jose Vasquez (USFWS), Walter Larrick (landowner).

Welcome and Introductions.

Updates and Announcements.

- Bull Trout Video – Mitch Long
 - Pulling group together to tell story of KCT Bull trout work in Yakima Basin, big restoration projects, rescue and release.
 - Three-to-five-minute video for education and outreach using state funding resources.
 - North 40 helped on Teanaway acquisition video, a good resource to have.

- YBIP funding update – Alex Conley
 - Funding looks to come through at base levels throughout the state. Don't expect big changes.

- SF. Tieton Bridge updates – Joel Freudenthal
 - Project is at 99% design but not enough money to be done for the year 2023. The biggest cost item is excavation and transport of earthen materials from reservoir. Without that should save around 1.4 million dollars. If we can shave that million, we should be within 2-3 thousand of real costs. Probably going to bid later this fall to be ready for Winter construction for 2024-25. Calls for completion by the middle of March of construction year.
 - The timing of construction and road closure won't cut off access to anyone (cabins) but distance may increase temporarily. Boating and swimming rec access will not change.
 - Reclamation funding 700,000 and 400,000 from USFWS. Funding will not be lost due to pushing the timeline back.
 - ESA updates - what delays and project changes are underway? Need to communicate for the ESA document updates/submission on Rimrock lake glacial till sediment dispersal.
 - Fencing on bridge deck is not happening because of inability to inspect bridge properly with fencing there.

- Passage Barrier data
 - YBFWRB database is up-to-date with Bull Trout passage barriers, WDFW master database should reflect soon.

- Aimee requested pictures of Bear Creek and DeRoux Creek which were provided by Jason Romine and William Meyer

Gold Creek and Kachess River Project updates – Mitch Long

- Will soon be going to public comment. Please submit comments.
- Kachess river has full funding for restoration project now.
 - Contractor will be BCI Interfluve
 - The goal is to get the project completed in one year. Mitch is confident that there won't be instream work to do by the time November hits. The only thing that will stop construction is early rewetting of the stream or fire danger. Prime work window, set up and staging and harvesting of trees early before instream work is in late July, depending on spotted owls.
 - NEED to coordinate fish rescue for this season and in the future, it will be harder to access the area once construction begins.
 - Helicopter and local wood debris will be used for creek and floodplain restoration
 - The only part that is likely to take longer is YBIP funding for design and construction of new trailhead.
 - Old trailhead area for construction staging area.
 - Let Mitch know if you would like to plan tours/visits. Particularly people from Gold Creek valley.

Bull Trout 10-Year plan – Craig Haskell

- Presented plan to YBIP executive and policy committee and teams. Work flow consists of O&M consultation process, salmon and steelhead plan, agreement, bio assessment, and then bio-opinion.
- Looking for measurability or metrics to evaluate projects over time, working internally to develop those metrics to develop these projects cohesively. Reach out to Craig to discuss these metrics.
 - Redd counts going back number of years, like to be able to rate individual projects as well as bull trout population success.
 - Question: Monitoring/metrics, is that for all projects for project in 10-year plan or are there specific projects in mind? or are you looking for metrics for populations and how they respond to projects? What do these metrics mean for bio vs recovery goals?
 - Joel Hubble Clarification – desire to create metrics for population scale and specific project scale. There is value in measurement tools on a populations scale. Kind of like a contract, constructing fish passage and metrics for that, or habitat metrics. Look at the response of bull trout populations to restoration projects.
- Discussion and questions ensued.
 - Newsome: how do you bring in non-measurable metrics like rescue projects – what is success? Is one or two fish survival success? 20%? Different success measurements to negotiate.
 - Who are intended signatories? To be negotiated.
 - How does this discussion fit into the BT MOA? Timing of projects and incorporating metrics.
 - For those projects that have undergone ESA consultation or are already finished (nelson dam, etc) – are we looking to go back? Are we going to come up with new ones or just

use FWS and BOR metrics? Craig says we will not go back to projects that already had ESA consultation.

- There will be internal USFWS discussions of general processes – He appreciates the feedback. It's been recommended by the habitat subcommittee to convene a smaller group.
- USFWS Job Opportunity: Temporary Detail up to four years – tasked and dedicated with biological opinion on Yakima BT project management – Kathy Robertson notes it is at GS 13 level. The discussed metrics are not necessarily tied to the position, but position would likely impact metrics direct consultation.

Using PHABSIM data for Box Canyon – Scott Kline

- PHABSIM is used for in-stream habitat evaluation. Usually used inform flow regulations and find optimal flows for a given space and certain species and life stage.
- Thinking about using PHABSIM to describe a habitat to identify limiting factors. How much usable habitat is there for species and life stage? Figure out the habitat above Peekaboo falls.
 - It starts with habitat preference curves. We measure depth, velocity, substrate and cover at the point a fish is observed to characterize habitat the fish use., as well as in transects in the area to describe what is available.
- He used curves from BT populations in other parts of state due to lack of local populations to populate the metric. The curves show depth of velocity in target reach, and again in 3 different flow levels.
- In Box Canyon, spawning is taking place above big pool falls and less so below. Scott's research has found that there is more juvenile/YoY habitat below Big Pool (Before wood project). An increase in density was noticed after wood project in stream below Big Pool Falls in Box Canyon.
 - Concerns about quantifying improvement from wood, or are the findings of impact on juveniles good enough? How are gravels sorting and setting out – wood impact...
 - Is this good enough for post-wood monitoring? Or should we try to utilize PHABSIM? What does PHABSIM tell us what we don't know already? Unit capacity models, inventory total amount of habitat and tools that go one step further maybe.
- Peekaboo passage discussion: let's talk about what do we need to do if we want to implement passage and what we need to do regarding permitting processes. Regulatory reintroduction above peekaboo.
 - KCT – focus on collecting data on how to physically create passage.
 - Moving dispersed sites won't be an issue, USFS has good relations right now with KCT and bull trout projects.
 - Mitch is more concerned about regulatory hurdles of releasing ESA listed fish to a space they are not already found in. What's the data we need to gather to get through the regulatory hurdles.
 - YN reintroduction plan – PHABSIM might be worthwhile, though there might be better tools...
 - Wood should be places upstream of Peek-a-boo falls as well if the goal is to reintroduce BT to Upper reaches. Concern is that upstream wood would move, potentially creating another passage barrier or blocking Peek-a-boo again. How do we move forward with this?
 - Hubble – adaptive management. Are we ready to work on upper reaches??

Break

Habitat Patch Model status and plans – Brittany Beebe

- Purposes of the modeling effort
 - Inform introduction efforts to locate areas with a high probability of BT survival.
 - To locate opportunities for fish passage mitigation.
 - Utilize future predicted temperature and flow
- Methods and current status.
 - Looking for feedback and input on certain decision points.
 - A lot of the data comes from the National Data Set.
 - Gather Data → Modify Habitat Patches → Fit Data to Model = Predict Occurrence across basin.
 - Following methods outlined by Dan Isaacs paper: nine physical variables. It would be incredibly helpful to have this data in the Yakima Basin. For Example, Patch Volume, Continuity, Length of patch, road density etc.
 - Brittany is currently doing appropriate applications to specific reaches.
 - Redds are labelled as definite, probable, etc. Redds under the “Possible” category were removed.
 - Reducing spatial scale, defined summer season, removed ag and reservoir areas from the model.
 - The canopy cover constraint removed most lower basin reaches. BT habitat model confined to upper elevation.
 - Brittany is now working on adding known barriers. We want to remove reaches with barriers since fish can’t access them. Types of barriers have varying degrees of passage. Brittany narrowed it down to barriers with 0% passage. Judgement calls as to when to apply barriers in project descriptions. Looking for advice/ methods of how to apply barriers. There is a temporal aspect of barriers. Is it a barrier when applied to our models (rearing/spawning seasons)? Brittany to connect with Alex more regarding applying barriers to the spatial model.
- Reminder that results in presentation are preliminary.
- Other data comes from using Norwest, climate shield, Jason Dunham work but never formally released for state of WA. New flow and temperature available to apply to the models. Both recorded and predicted.

BT Rescue Survival Modeling Results – Scott Kline and William Meyer

- BT rear-release pilot project started in 2017. These numbers were put together in a “dumbed-down” way for a brief executive management habitat subcommittee meeting
- Numbers:
 - 5,935 total bull trout rescued.
 - 5,687 were Young of Year (16 of which died)
 - 2,597 went to YN rearing facility, of which 1125 died (adaptive management has been applied. It was a process to learn about how to rear this unique fish), and 3070 move to upper stream.
 - Basic overview of BT program in Yakima Basin = pit tags, snorkeling, etc. Multiple monitoring efforts combined to get observations of recued fish into the model.
 - About 92% of fish were from Kachess River and 8% from Gold Creek.

- After modeling using survival rates from published literature in other areas, the results showed around 7 Bull Trout surviving to age-5 (spawning age) per year of Kachess rescue
 - Gold showed ~1 adult per year of rescue surviving to age 5. Is it worth it to continue rescuing at Gold Creek??
- For success, we need more YOY at Gold Creek and we may petition to take all YOY from Kachess to rear in hatchery setting (we don't know the survival rate of YOY that are transported upstream to perennial flow zone).
- Todd Newsome suggests holding onto fish from fry to adult for brood stock program before we lose them.
- Discussion:
 - Willey – what's the differential survival between the age classes? This is a novel project – rescuing fish that are going to die anyway. We started the rescue-and-rear process in 2017-18, what's the differential survival between putting in stream and reconditioning at the hatchery?
 - Willey suggests: The story/history/data that is starting to show that those fish we are reconditioning at LaSalle are maybe “outperforming” the fish being placed back into stream immediately, hopefully having greater contribution in the upper basin.
 - Other folks mentioned that a much higher proportion of tags are going into La Salle reared fish than those released into the perennial flow. There is not good evidence that the captive-reared fish are indeed “outperforming” the ones released immediately, but they are certainly able to be monitored more easily.

Redd Data Update – Aimee Taylor

- She is working on processing data current to past. The “iPad era” 2018-present has been more streamlined and consistent with the metrics we want to collect. Prior to that we had paper data sheets, or just summary forms and GPS data points were not collected consistently for each redd.
- Aimee finished checking data from back to 2013 and is now starting on data from 2012. This process is taking longer than initially expected. Not only GPS points for Redds, but some data sets are missing entire sheets.
- Will probably be reaching out for missing GPS points.
 - In 2015 a lot of Deep Creek data is missing from packet for that year. Email Aimee with GPS points!! Especially for the years 2014 and 2013.
- The future goal is to merge BT database with the statewide spawning database for the state of Washington. Danny Warren WDFW is super excited to bring in Bull Trout in a cloud-based SQL database.

2023 Fieldwork Planning / Discussion – Aimee Taylor / Zac Zacavish / All

- MCFEG BTF can provide a LOT of services for Bull Trout projects this year, reach out to request monitoring / other labor.
- Rimrock drainage Indian Creek fish rescue?

- Willey – Money that is funded by federal dollars and permit does not allow for Indian creek fish rescue-and-rear, only SFT, Kachess, and Gold. Technically they can not be collected or salvaged with federal funding.
- What about collection for demographics? WDFW + MCFEG could do this without additional federal funding application processes. Impetus is less, cost is equal, wait for areas with populations on the brink? Collect data this year for future stock collection. The idea is that Indian has a lot of redds and fish can be taken without impact to population due to dewatering salvage nature (network of dry side channels). 2023 season makes sense to commit exploratory research for donor stocks.
- BTTF with PIT tags, MCFEG does not have a pit tag kit, but Russ Byington, or Todd Newsome can provide a kit. Suggestion to take a genetics kit as well in the case of BT mortalities.
- Cabin Creek assessment funding – more broadly than just Bull Trout.
- Zac to go to Deep Creek to test eDNA using new MetaBarcoding tech. He will test tech to see if abundances of bull vs. brook line up with snorkel/demographic data and to test accuracy of assemblage information. Zac to connect with Jose to discuss metabarcoding further

BTAP Update Schedule – Alex Conley

- Alex and Aimee are working through scheduling and groundwork to be done.
- Building Yakipedia page and server to edit, track and share.
- Goal to clean up actions and create a SQL database that allows querying of up-to-date actions whether by type, population, group, etc. vs a PDF that needs to be published every time its updated.