

## Bull Trout Field Season Planning / Research Update Meeting Minutes

Date: August 19, 2014 (1:00 pm - 5:00 pm)

Location: 1200 Chesterly Dr. - Suite 280, Yakima WA 98902

### Agenda Items & Follow-up

Topic	Follow-up
Welcome and Introductions	Judy Neibauer (USFWS) presented the Feasibility Assessment (FA) (BTAP App. D) for meeting context (Fig. 1). Group submitted proposal in March to GNLCC (not funded). USFS & YBFWRB proceed with temperature analysis as part of habitat assessment. Identify funding (IP / USFWS) for full FA and collaborative opportunities from USGS and others. Proposal will be made available for group to review.
Bull Trout Patch Analysis & Discussion	Jason Dunham (USGS) presented the BT Vulnerability Model - Group interested in utilizing model for Yakima BT populations; local partners to acquire data (temperature, barriers, ect. to support model development). USFS & YBFWRB working on temperature and barrier assessment. Update BT November meeting.
Yakima Basin Integrated Plan -Update	Richard Visser (USFWS) YBIP is a basin-wide plan to deal with fish and water resources. Seeking projects for BT Enhancement Package.  Group will submit budget and project description for FA (may edit to align with Vulnerability Model).
Feasibility Assessment: Status Update	Richard Vacirca (USFS) presented temperature analysis on FS lands within the Yakima Basin. Limited temperature monitoring beyond 2012, select sites may be reestablished for monitoring. Requested input from the group regarding thermal breakpoint by life stage.  Chantell Krider (YBFWRB) presented temperature analysis off FS lands (DOE) and Ahtanum Creek (Yakama Fisheries). USGS, BOR, DNR and other data sources identified from the group will be integrated into FA and presented at the November BT meeting.

Topic	Follow-up
	<p>With permission from data sources, temperature data will be shared with the NorWest Project <a href="http://www.fs.fed.us/rm/boise/AWAE/projects/NorWeST.html">http://www.fs.fed.us/rm/boise/AWAE/projects/NorWeST.html</a></p>
Gold Creek Project - Update	<p>Mitch Long (KCT) presented update on the Gold Creek Hydrologic Assessment. Volunteers needed after Sept. 15, contact for training (Monday and Thursday). Contact: Mitch Long <a href="mailto:brooksideprojectmanagement@gmail.com">brooksideprojectmanagement@gmail.com</a></p>
NF Tieton Adult Trapping	<p>Jeff Thomas (USFWS) presented update on NF Tieton Trapping. May need volunteers for monitoring the trap. Contact: Eric Anderson <a href="mailto:Eric.Anderson2@dfw.wa.gov">Eric.Anderson2@dfw.wa.gov</a></p>
Bull Trout Task Force	<p>Cassandra Anderson (MCFEG) presented update on the Bull Trout Task Force (BTTF). BTTF available to assist local bios. Funding support needed for 2016. Contact: Cassandra Anderson <a href="mailto:cassandra@midcolumbiarfeg.com">cassandra@midcolumbiarfeg.com</a></p>
BT Recovery Plan - Update	<p>Judy Neibauer (USFWS) Recovery Plan available for review September 15. Comments due end of December. Opportunity to review &amp; discuss comments during November BT meeting. Group may consider submitting group comments and letter.</p>
Integrated Planning - Habitat Analysis	<p>Scott Kline (WDFW) Update on habitat assessment for DOE (IP Proposed Projects). WDFW looking for habitat assessment gaps associated with IP projects. Will provide workplan to group. Contact: Scott Kline <a href="mailto:scott.kline@dfw.wa.gov">scott.kline@dfw.wa.gov</a></p>
BT Field Season - Logistics	<p>Eric Anderson (WDFW) spawning surveys start the end of August through mid-October. Looking for volunteers. Naches survey crew will meet at the Naches Ranger District 8:30 am other meeting locations are the same as last year. See email (8/21) from Eric regarding survey / GPS procedures. Contact: Eric Anderson <a href="mailto:Eric.Anderson2@dfw.wa.gov">Eric.Anderson2@dfw.wa.gov</a></p>

## **In Attendance**

Mitch Long (KCT)  
Jeff Thomas (USFWS)  
Jeff Trammell (YKFP)  
Eric Anderson (WDFW)  
Richard Visser (USFWS)  
Paul James (CWU)  
Gabe Temple (WDFW)  
Nathan Longoria (WDFW)  
Dave Fast (YN)  
David Child (YBJB)  
Tim Resseguie (YN)  
Alex Conley (YBFWRB),  
Judy Neibauer (USFWS)  
Chantell Krider (YBFWRB)  
Ashton Bunce (CWU)  
Cassandra Anderson (MCFEG)  
Nicole Fenton (MCFEG)  
Pat Monk (USFWS)  
Joel Hubble (BOR)  
Scott Downes (WDFW)  
Scott Kline (WDFW)  
Gary Torretta (USFS)  
Raychel Parks (WDFW)

## **By Phone**

Jason Dunham (USGS)  
Richard Vacirca (USFS)

## **Agenda: 1pm - 5pm**

- Welcome and Introduction - Judy Neibauer, USFWS
- Bull Trout Patch Analysis - Jason Dunham, USGS
- Yakima Basin Integrated Plan Update - Richard Visser, USFWS
- Feasibility Assessment: Status Update & Discussion - Richard Vacirca, USFS & Chantell Krider, YBFWRB
- Gold Creek Project Update - Mitch Long, KCT
- NF Tieton Adult Trapping - Jeff Thomas, USFWS
- Bull Trout Task Force - Cassandra Anderson, MCFEG
- Recovery Plan Update - Judy Neibauer, USFWS
- Integrated Planning - Habitat Analysis - Scott Kline (WDFW)
- Field Season Logistics - Eric Anderson, WDFW

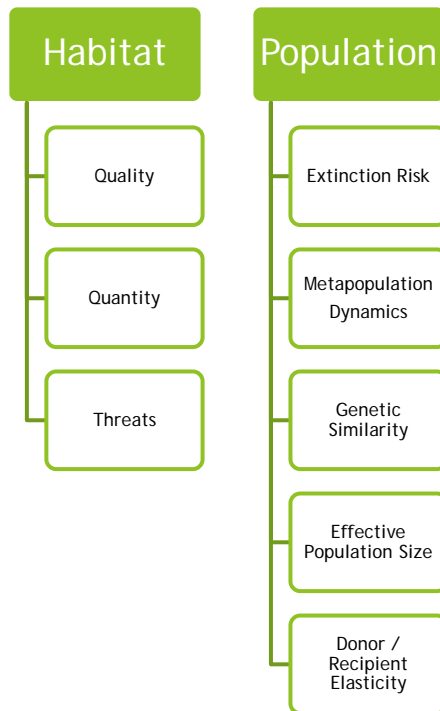


Figure 1. Feasibility Assessment Diagram adapted from BTAP Appendix D

## Full Meeting Minutes

### 1. BT Patch Analysis - Jason Dunham, USGS

#### Vulnerability in 4 steps

- Map suitable habitat “patches” across the species’ range in the conterminous United States.
  - Network temperature models (Isaak, Peterson, et al.)  
[http://nrmssc.usgs.gov/gnlcc/str\\_tempDB](http://nrmssc.usgs.gov/gnlcc/str_tempDB)
  - Scalable management - Site, Patch (local population), Patch network (core area), Subbasin, Region
- Map and attribute migratory habitats for the species and their relationship to “patches.”
- Attribute patches and migratory habitats with information on local and climate related threats
  - Human influences (human footprint)
  - Climate indicators
    - Cold water
    - Winter floods
    - Wildfire
- Model persistence (=presence)
  - Integrate data nodes
    - Flow regime, stream length in a patch, thermal regime, human footprint (positive correlation)
    - Migratory connectivity (negative correlation)
- Model may be tailored for specific basins based on local factors - planning portfolio (Boise, Klamath, Wenatchee, Lower Pend Oreille, Clackamas...and Yakima)

- Need funding for Yakima model development

## 2. Yakima Basin Integrated Plan (YBIP) Update - Richard Visser, USFWS

- The YBIP is a basin-wide plan to deal with fish and water resources. It includes 3-4 billion dollars worth of projects. There is a habitat subcommittee to develop habitat projects to submit to the state for funding. It includes all species: salmon, bull trout, steelhead.
- A list of projects was developed. Couldn't go after 10 years of funding all at once. A 2 year funding list for 5 million dollars was created. Some habitat projects on the 2-year list needed ESA consultation; therefore a separate list was created. It didn't work to have two 2-year habitat project lists. Ultimately, a broad list was created that included everything.
- There are currently 4 lists. There are two IP lists (one being an EIS list) and 2 & 10-year program lists. For the EIS list, the BOR could get funding from the state in addition. There is an ESA list that Judy and Jeff are working list in terms of O&M. A few projects on IP early action: SF Tieton assessment; K-projects enhancement: Gold Creek habitat enhancement; supplementation and translocation funding. ESA: O&M, K projects, short and long term list. Seems to cover everything.
- Q: What's the best way to keep folks in the loop? A: The habitat subcommittee is a good way to stay involved. ESA stuff - internal operations within USFWS.
- Enhancement package: Richard is assisting BOR. They are working on a package now. It could be finished in 2-3 weeks. BOR could share in a couple months. Richard will email update to the group. Q: Possibly in November could we put the lists on the table? A: A couple of these lists - IP 2 year and enhancement projects - should be completed at that time.

## 3. Feasibility Assessment: Status Update & Discussion - Richard Vacirca, USFS

- Stream temperature is a big metric to look at; USFS Upper Yakima and Naches has a large stream temperature data network over the last couple decades. With this huge data set, how can we crunch it down?
  - Look at strengths, weaknesses and frequency of data. Why it was monitored as an index site? What is the meaning for bull trout? Upper Yakima temperature collection ran 2002-2012 at 31 sites on Forest Service land. Daily maximum average and average daily temperature was recorded. The average daily temperature was calculated for July-October months and the average daily maximum temperature for the year.
  - Naches has 16 temperature sites on Forest Service land. Data was collected from 2002-2012, but there are periods of years when there is a gap. The team must crunch data down for a first cut. Is there anything we can say regarding the temperatures that have been monitored?
  - Ran temperature data for each year and created graphs for daily maximum stream temperature for the Upper Yakima. The North Fork Teanaway went through a period of temperature rising starting in 2009. Viewed graphs for the daily maximum stream temperature for the Naches and average daily stream temperature for year. What does it look like across a distribution? Viewed Upper Yakima Okanogan-Wenatchee fish distribution layer map with temperature data integrated. Lethal temps for egg incubation, rearing and juveniles can be stratified. What tributaries are looking like they're too warm? What does that do for localized implementing and recovery actions? Looked at Naches map using same temperature stratification. There are a number of points falling from 8.9-12.2 degrees C and 12.2-14.4 degrees C in BT spawning and migration areas. The data gap is out there and overtime we should fill those data gaps. Maybe start baseline monitoring conditions in other tributaries?

- Q: did money to monitor index sites go away after 2012? A: It has drastically reduced, yes. With the little money that's left we should pull back from index sites and see how to fill data gaps. Q: How does prioritization of sites work? A: Focus on what we need to keep building the existing layers.
- Data collected will go into Dan Isaac's model.

#### 4. Feasibility Assessment: Status Update & Discussion - Chantell Krider, YBFWRB

- Have funding for basic genetic analysis; future funding may fill in population side.
- BT and habitat quality - thermal suitability: high <16C, medium 16-19C, low: over 19C.
- Viewed data. Focused on the mainstem Yakima, then Naches
- There is temperature data from 1960-2012, although there are data gaps in some years.
- Maximum monthly temperature at each site over the entire period of record (1960-2012).  
What's interesting: September gets a mid-peak in temperature for some tributaries in Upper Yakima: Swauk, mainstem Yakima. It is most likely due to the flip-flop; there is less water so the water is warmer. In September the Upper Yakima mainstem is over 16 degrees C for 50 days.
- Ahtanum - redd counts. Viewed maximum temperatures for the lower Ahtanum and forks. Priority actions in Ahtanum were viewed. Next steps for integrating Dunham's work?
- Where to get additional temperature data? Thoughts for data sources: Plum Creek, irrigation company in the Ahtanum, DNR.
- Q: once data gets rolled up, have you thought about modeling? A: Yes, NorWest will model.

#### 5. Gold Creek Assessment Update - Mitch Long, KCT

- This is the second year of assessment
- 2013 had 1.5 miles of dewatering in Gold Creek
- To be completed in 2014: Hydrologic Assessment, geomorphic channel, floodplain and riparian assessment, conceptual design
  - Technical working group to meet late this fall and next year to see where we want the project to go
  - Mitch is doing bi-weekly field recon during dewatering season
    - Recording where dewatering ends and begins
    - 12 photo points installed to look at Gold Cr. Pond experiment
- A new well was installed at a depth of 20 feet at station GW5.
- This year will resume surface water and groundwater well monitoring and will also conduct the Gold Creek Pond experiment and raise the pond by a water surface elevation (WSE) of 2.5 feet to see what effect it has on the channel.
- To conduct the GCP experiment and raise Gold Creek Pond by a WSE of 2.5 feet, some sort of temporary dam will be built on the outlet channel.
- Sept. 15 - Mitch needs assistance with Gold Creek monitoring for two weeks. He usually goes out Monday and Thursday but days are flexible if someone is volunteering.

#### 6. North Fork Tieton Trapping - Jeff Thomas, USFWS

- The objective of the study is to see how successful bull trout are (or are not) at passing the denil fish ladder in the lower section of the spillway and the pool and weir ladder in the upper section of the spillway. When migrating through the spillway, bull trout must pass through the pool and weir ladder because they don't have another option. In the lower section, they must

pass through the bedrock spillway because the denil ladder has a steep slope and is clogged with gravel.

- New antennas were put in place at the bottom of the spillway and over the bedrock in the lower section of the spillway. The antenna at the bottom of the spillway is charged by solar and has worked great. The antenna attached to the bedrock was chewed through by a critter, causing the antenna be offline temporarily until it was repaired.
- The study will determine the extent that North Fork Tieton bull trout use Clear Lake. So far we're seeing that NF Tieton bull trout may reside in Clear Lake. Although, it's all preliminary data. This is the third year of the study and we hope the data answers the remaining questions. 24 fish have been tagged in 2 years (2012 & 2013) with half duplex PIT tags. Of 24 post-spawn fish tagged, 14 have already went up the NF Tieton and not a single one of the 14 went up the spillway this year.
- 2 fish have been detected leaving Clear Lake. Only 1 was detected last year coming back up. It took the female fish who returned to Clear Lake 11 days to pass the spillway in July (18-29?) 2013 and temperatures in the spillway ranged from 16-17 degrees C. She left again last fall and was recaptured in the stilling basin below Clear Creek Dam three weeks ago.
- We expect a lot of recaptures this year. We will tag any new fish encountered. Recently, 10 bull trout were caught via hook-and-line sampling below Clear Creek Dam in the stilling basin and tagged. This method was used because we didn't want to only be tagging the fittest fish who made it over the dam and up the North Fork Tieton.
- Starting to get an idea of what "good flows" for migration is needed in the spillway. Temperatures in spillway are pretty warm right now. Dams operations will soon be automated; hopefully next spring BOR will be able to control what the lake elevation is which ultimately controls flows over/through the spillway. The outlet channel of dam is much cooler than the spillway. Not surprising that fish stay in the cooler water. Including the 10 bull trout tagged three weeks ago in the CCD stilling basin, there are now PIT tags in 34 bull trout. Genetic samples have been taken for all fish - 35 total genetic samples.
- Q: Can we get rid of Clear Creek Dam? A: It's for recreation and the kids. There are a few kids' camps on Clear Lake. There was serious talk about removing the dam in 2006. Nobody has taken it down the removal road again. Even if the study finds out that majority of bull trout live in Clear Lake, there are evidently some bull trout that do not. We want passage and connectivity.

#### 7. Bull Trout Task Force - Cassandra Anderson, MCFEG

- The BTTF operates June-October throughout the Yakima Basin and focuses on outreach to anglers regarding bull trout. Outreach informs anglers how to identify bull trout and reminds them bull trout must be released if incidentally caught while angling. All anglers contacted are given a bull trout identification card. The BTTF conducts dispersed education and structured education such as campground presentations. Campground presentations have been very successful with 40-80 people in attendance.
- The BTTF posts signage in bull trout areas: identification, closed waters, let 'em pass (recreation dams), large wood is fish habitat, special regulations in effect, etc. Signs on recreation boards often get ripped down and need to be replaced. BTTF monitors signage.
- Less recreation dams have been removed this year compared to previous years. We think it's due to constant monitoring and removal, as well as the WDFW let 'em pass sign that states rock dams are illegal.
- The crew is gearing up to start spawning surveys.

- The project has directly educated over 5,000 people about bull trout, removed over 100 rock dams to maintain passage, posted hundreds of signs and assisted with numerous spawning surveys throughout the Yakima Basin.
- The project is funded this year through WDFW ALEA program and the Yakima Basin Integrated Plan. We have Integrated Plan funding for 2015, but have not secured funding for 2016 yet.
- Next steps are to meet with bull trout folks to assure the project is meeting local bull trout recovery efforts. The BTTF aims to assist local bios with data collection and special research projects and would welcome the opportunity to take on additional tasks to aid bios and bull trout recovery in the basin.

#### 8. USFWS Recovery Plan Update - Judy Neibauer, USFWS

- The USFWS Bull Trout Recovery Plan is set to come out for public comment of September 15. USFWS internal comments were already submitted. Judy feels the local internal comments didn't really change the overall plan. Judy's opinion is that the plan may be lacking good conservation biology work and the recovery unit plan needs to be adaptable on a local scale. It's lacking demographic scales. We need to know how to maintain and use our local bull trout working group correctly. Should we have quarterly meetings? Deadline for public comments on the USFWS Recovery Plan is the end of December. The USFWS BT Recovery Plan will be on the website.

#### 9. Scott Kline

- WA Department of Ecology has contracted with WDFW to do fish and wildlife habitat analysis on the projects. Data gaps that may be out there regarding bull trout could be collected. There will be a lot of terrestrial wildlife data collection and the crew wants to help out with bull trout data collection. Scott Kline's question to the group: Upper Bumping - did you stop doing surveys? A: There are periodic surveys and a few redds over the years. They are the same genetic stock as Deep Creek. Yuki got juvenile genetic samples in U. Bumping.
- Scott K: What about Meadow Creek at Keechelus? A: Haven't seen anything there. It used to have warm temperatures because of no riparian vegetation due to logging. The vegetation could have come back by now.
- Q: are you looking at streambeds across the reservoirs? Example: Box Canyon across the dry lakebed. Will it get worse with K-K projects? A: There is interest on Box and Kachess in regards to the project.
- Comprehensive snorkel survey of Keechelus tributaries needs done.
- Bumping: Granite Creek is impassable now. With a pool raise, it could create passage and be suitable bull trout habitat.
- Q: Is Upper Bumping a lost cause? A: It's always nice to do another survey to check.

#### Field Season Logistics - Eric Anderson, WDFW

- Getting ready for spawning surveys. The first survey is at the end of this month. Surveys will continue consistently through September and a few days a week in October. Anyone who wants to participate in spawning surveys and hasn't signed up yet should do so.
- Eric needs additional folks for the Indian Creek survey on September 18<sup>th</sup>.
- For surveys in the Naches we will meet at the Naches Ranger District at 8:30am and carpool from there. People working the North Fork Tieton trap will come down from the trap and meet survey folks at the stream survey site.
- For Upper Yakima surveys, surveyors participating will arrange a meeting time and place.



- Eric sent an email with survey procedures, survey form template, GPS procedures and GPS template.
- Judy will coordinate NF Teanaway snorkel survey(s) and possible upper mainstem Yakima River spawning survey.

Meeting adjourned approximately 5pm.