

## Methow Restoration Council

December 19, 2017

### Participants:

Name	Organization/Affiliation
Chris Johnson	MSRF
Greer Maier	UCSRB
Hans Smith	Yakama Nation
Jacqueline Wallace	TU
Jarred Johnson	Yakama Nation
Jennifer Molesworth	Bureau of Reclamation
Jessica Goldberg	MSRF
John Crandall	MSRF
Jonathan Thompson	TetraTech
Julie Grialou	Methow Conservancy
Kristen Kirkby	CCFEG
Lynda Hofmann	WDFW
Maddie Eckmann	Yakama Nation
Mariah Mayfield	USFS
Rick Alford	Yakama Nation
Rob Crandall	Methow Natives
Robes Parrish	USFWS
Sandra Strieby	Local Citizen
Tricia Gross	TetraTech

**John Crandall – Monitoring Update:** Ecology has a lot of useful information in their water quality monitoring department (<https://ecology.wa.gov/Research-Data/Monitoring-assessment/River-stream-monitoring/Water-quality-monitoring>). They have four sites in the Methow where they do monthly sampling. They have the water quality index – WQI, which is viewable on the site. They had one site at the mouth near Pateros, which ended in 2009 when they moved it upstream to the bridge near Amy’s Manor. You can get scores for each site per year. There is also the information written up in a paper. The Methow is one of the few sites in the state that have had a declining score in water quality.

Kristen Kirkby – is that temperature and turbidity that were driving that?

John – I was asking similar questions. You can look at the variables that go into the score, and my guess is that temperature and sediment are the things driving the decrease in water quality.

Chris Johnson – can you overlay the low score sites to show that water quality has gone down in fire zones?

John – we have the site in town and the site downstream. You can look more closely at the data, which will give you the date and flow.

John – CHaMP data: the program is largely going away, scaled way back. They did 15 sites this year in the basin, and there is an effort now to try to relate the information they collected to fish production and abundance. They tried to set it up to do some fish sampling at CHaMP sites. They are using a QRF model to try to draw circles around attributes that influence the abundance of fish. The model includes a number of variable habitat attributes to predict which things are most important to the fish seen. A lot of folks are working on it, and the results should be done in January or February with a report.

Mariah Mayfield – will they present at the salmon conference?

John – I don't know if they will have their results, but they will be there. Chris Beasley and Kevin See from Quantitative Consultants, Inc. are working on it.

**Rick Alford – Coho Update:** we've gotten the adults back this year to facilitate the natural production phase. We have acclimation ponds constructed at nine locations, and will be showing pictures from a few of the sites:

#### Eightmile

Rick – we have log structures with a scour pool at the intake screen to protect and help keep the screen clean.

Chris J – how do you inspect the screen?

Rick – you can get to it, but the logs hide it, keeping it not visible was important to the FS. It's near some ELJs that the habitat folks installed in 2012. Have reveg, with plantings done by Methow Natives. We have a sediment settling vault, with a long pipe leading to the pond. We over-engineered the site because it is really wet to keep it protected from erosion, and Methow Natives installed a lot of plants. We have an overflow channel, and the site is designed for protection of fish and the facility. We will be able to monitor remotely, but it will also be manned 24/7 during operations. All of the spoils from the site had to go to an approved pit, and when the site is no longer needed in many years, we will refill the pond. The pipe will stay but the intakes will go away; things that are buried will likely stay. Still working on the reclamation plan.

Chris J – what is the operational period?

Rick – about mid-March to mid-June, it is a volitional release, they typically go out starting in May, and the system shuts down after they leave.

Kristen – any other ponds?

Rick – yes, we have nine total will be used. In addition to Eightmile, we have Early Winters and seven more.

#### Early Winters

This site is right between Early Winters and the highway, on private land. We have two ponds, one for coho, and one that can be multi-species. There are two screened intakes going to a common vault; there are also two backup wells. In-water work took less than a week to construct

John – the thought is to get the fish imprinted on the site to attract them to the zone, where will they go, up Early Winters creek, or up the Methow? Any thought of how it will influence bull trout?

Rick – yes, the idea is that returning adults come back and seed these areas, where they go will be determined by the fish. We have to monitor to see the effects and see how it impacts other species

John – In Early Winters creek, you don't have a lot of spawning for bull trout, so we need to be on the lookout for effects. Surveys didn't happen this year for bull trout, but will happen next year. They are an important group of fish, but where they are actually spawning is very small.

Rick – every year with the state we get waypoints for spring Chinook redds, so we can get an exact idea of where these redds are before we even start. It would be good to have that with bull trout

Chris – I'm interested to see how the screens stay clear.

Rick – both ponds have separate release pipes that join to a common pipe that goes to Early Winters Creek. We have predation wires, and the ponds are lined. We have a generator building with electronics and backup power.

Jarred Johnson – what can you tell us about coho adult returns this year?

Rick – it was a surprise, we had about 5000 adults return, and we collected about 1200. The last couple of years their condition has been really good.

John – what was the most upstream location where they were seen?

Rick – Fender Mill, Chewuch had none, Twisp not as far up as little Bridge Creek

Discussion – other sites, Beaver Creek too volatile right now, Gold Creek is also challenging, looking at Libby, etc.

Chris J – how many fish did you put in to get the 5000 back?

John – and are you getting different ages?

Rick – the ones we are getting back are from 2014, many are from wild (2-3%); we released about 500000 in 2014, and I don't have the split from wild/hatchery origin returns. We will be looking at that as we go forward.

Lynda Hofmann – were the fish in Fender Mill in the channel or in the river?

Rick – in the channel. Spawning distribution is mainly from Winthrop down. Our spawning ground survey will mirror spring chinook

**Greer Maier – UCSRB Updates:** The Science Conference will be January 24-25<sup>th</sup> and registration is open now – we are working on getting the draft program up online by the end of the year. We have most of our speakers confirmed. We have two ISAB members coming to give a preview of the update on spring chinook. We also have presentations on species status, predation, and ocean conditions. We have a session on watersheds looking at fish distribution within watersheds and a bunch of presentations on watershed scale topics. Something from TU in Boise on use of remote sensing data. A session on habitat restoration and effectiveness of different restoration techniques. An all-H session that will talk about hydropower and hatcheries, and survival and life history. Check our website in the next few weeks for a full program and abstracts. Please register as soon as you can. Jan 24<sup>th</sup> and 25<sup>th</sup>.

The ISAB review will be wrapping up with a draft report at the end of January. They met on the 8<sup>th</sup> and it was a very interesting discussion. The final report will be interesting. They talked about cost effectiveness and how to look at it.

The Power Council is developing a strategy for M&E; they have had a strategy for research. They are looking for input on what people would like to see in the strategy. It is a good time to give input.

UCSRB has a board meeting this Thursday the 21st. I believe there will be a call in, with updates from WDFW and NOAA.

At the last RTT meeting, they discussed how to move forward drawing the new Assessment Units, John Arterburn is looking at getting those finalized so they can run EDT. They are looking at drawing them at the 12<sup>th</sup> field HUC; they will be sending them out with the boundaries so that people can provide input. John – there are issues with boundaries, because you end up incorporating portions of the mainstem river into small tributaries; there are some issues with smaller and greater tributaries and where they join the mainstem river. It's not a perfect way to do it. Ideally, the mainstem would have its own assessment units.

Hans Smith – I left the meeting thinking that they were asking for recommendations on how to identify boundaries for the mainstem

John – the MRC can weigh in on this. This is an opportunity to give input, because we are the ones that need to use the Assessment Units. May be good to use subunits within the RAs, since they are generally geomorphic breaks.

Jennifer Molesworth – and the alluvial fans of the tributaries, which are really rich

John – a corridor going up, creating Assessment Units around the mainstem

Discussion – lumping/splitting

John – people can send comments to me and we can get the comments to the RTT

Chris – I think it would be good to have a good, collated and coherent set of comments (not edited) to provide to the RTT

John – and this will end up ultimately with a list of prioritized projects.

Chris – and we need to make sure that local knowledge is included in the process

Hans – it is being driven by the EDT process timeline

Greer – we're committed to come in January to come with the breaks and work with the MRC to work on it. The prioritization strategy that Tracy wrote is out there and people can look at it; I think it will be good to see an example.

Jennifer – it will be important for people to comment on that strategy

Greer – I will send it out; I also encourage people to read the notes from the RTT meeting.

Some updates from Joy: The final SRFB decisions were approved on December 7<sup>th</sup>, but the funding tied up with the Capital Budget. Their new funding report has a cool interactive project map.

We will also develop a project list for outreach funds, but it will only happen if we get a budget.

At the board meeting, we will have presentations on previous outreach projects. We will also be talking about project adaptive management and how we can fund adaptive management when things change.

Chris – I had a conversation with Melody earlier in the week that the WAT budgets are also being cut.

This is unfortunate, because this is happening at a time when we are being asked to do more.

Greer – the funding we do have is from YN; the rest of our funding is being tied up in the legislature.

The board will also be talking about that

Chris – I also understand that they will go forward with the 2018 SRFB round, hopefully we won't spend a lot of time until we know it is real – it costs a lot of sponsor time.

Greer – I agree that it would be good to have more certainty; we hope to have more by the time we kickoff the round.

**Jarred Johnson – Beaver Creek Reach Assessment:** I'm here with TetraTech to present on the RA that we are wrapping up right now. We did data collection in 2016, did LiDAR. We are going through the review process with the RTT, and we expect it to be finalized in early January.

[Presentation]

Tricia Gross – we will walk you through the document, at a high level.

Purpose – to develop a science based reach assessment and restoration strategy, address ecological concerns, improve habitat conditions for ESA species, and assist with habitat restoration practitioners with identifying and prioritizing restoration efforts.

This was an information gathering process. We surveyed from the confluence up to lightning creek, 11.1 miles. Acquired topobathymetric LiDAR in October.

- Assessment area conditions section sets the tone for the way things look today.
- Wildfires are an important condition in the watershed, some negative effects and they have important effects on the condition today. Two recent fires have had a big impact on Beaver Creek.
- Water Quality and Quantity are important ecological concerns in the drainage.
- Beaver Creek is changing a lot all the time, and it is difficult to capture the changing situation, important to check back in and consider the context.
- Fish use and population status in the creek
- Ecological concerns – there are seven for the assessment unit identified and prioritized by the RTT.
- Methods – we identified methods that are being used in other areas, so we reviewed existing data, and existing restoration efforts in the field. Conducted geomorphic and habitat field surveys, did USFS Level II protocol, and topobathymetric LiDAR, and did field identification of project opportunities.

Surveys were done in the summer of 2016; things do probably look a little different now in some areas.

Hydrology and hydraulics, geomorphic analysis, canopy height and tree cover, and REI

Seven distinct geomorphic reaches, identified current geomorphic conditions.

Assessment Results – reach descriptions, relative elevation model for each one, both summary and large maps included in the appendices.

Reach-based Ecosystems Indicators, evaluated for adequate, at risk, and unacceptable. There is an entire appendix about the REI. Based on pathways and indicators by NOAA and local work by Reclamation and YN. I encourage you to look at the data that backs it up, because it may not be as dramatic as it looks in the summary tables

Discussion – things are changing, depends on when you look, still need to refine information when developing a project

Tricia – Restoration Strategy overview, existing and target habitat conditions, reach scale strategies, project opportunities and potential actions, and prioritization of project opportunities.

Action types were divided into two categories: resource preservation and land management, and instream and floodplain restoration. Once actions were identified, we went through a scoring and prioritization process, looked at multiple elements evaluated, and prioritization based on a total benefit score first, and then secondary prioritization based on benefit to cost score. All of the scoring details are in an appendix. It is Excel-based, so you can use it at a local level and go in and re-evaluate, re-score.

Project scoring and prioritization is meant to be a guide, not a prescription.

For each project area, we developed a summary that includes potential restoration actions, with description and rationale, a map, and a photo; this is in Appendix E. The data is presented in multiple ways.

Jennifer – they did a thorough job, and the maps are really great.

Tricia – the report will be available after the New Year, and we will have electronic versions of the appendices available with the report

Jacqueline Wallace – did you look at hydrology?

Tricia – we did the best we could with the information available

Discussion – Volstead creek

Jarred – there is a discussion of Volstead in the report, but only with regard to how it affects Beaver Creek

Discussion – emerging issues, what we know has changed since the report was done; report was a snapshot in time; post-fire effects on Beaver and Frazer

Hans – it begs the question of how we look at our RA framework in a post-fire condition

Discussion – look at the scoring based on what we know now, and see how it may change how projects fall out

Jennifer – I don't think it would change the conclusions that much; I think it is still very relevant. I think you did a good job of capturing the situation there.

John – a question is that we have already done a lot of work, how do we look at what we have done, and what have we gotten with the work we have done, and now we have a list of prioritized projects. Is there a method to getting the projects on the ground? Beaver Creek is in flux now due to the fire, in the middle of the process playing out. But if all of the work we've done hasn't changed it that much, how are we going to move forward so that the projects we have done do make a difference?

Hans – we didn't spend any time evaluating the past actions, but the data speaks for itself in terms of what the current condition is. There are still a lot of impairments in the system that need to be addressed, and we didn't really evaluate whether the system is doing some of that naturally. We will need to look at that at the project level. We do need to have that community outreach component.

Chris – we've seen a lot of effects out there from the volatility of the creek

Jennifer – other than the fire effects and the associated hydrological effects from roads, there are some great things happening in Beaver Creek

Jacqueline – we are also seeing effects to flow from the leases and purchases

Chris – some of the issues are due to people's response to fires

Jennifer – and the question is how do we keep everyone at the table as they need to maintain the irrigation diversions; the irrigators have a solution, but it isn't very friendly to fish.

Discussion – basin is adjudicated, irrigators have a right to the water, wells would be ideal but costs are high and now water is free/gravity; landowners are interested; passage is a problem, many things in Beaver Creek are functioning pretty well.

Jonathan Thompson – the REI are also at the watershed level, and flow rolls up into that as well

Hans – I think this will be helpful to the RTT in what they are doing to update the Biological Strategy

Discussion – doing REI for the LMRA, difficult because the Level 2 habitat assessment is not really designed for such a large river, which is not wadeable. Lower Wenatchee RA may be a good thing to look at as an example for the LMRA

### **Roundtable**

**Robes Parrish – USFWS:** thanks to the people who took the time to submit the proposals for our RFP. We do not have a firm timeline on when we will let folks know about decisions. We will let folks know the timeline when we know one. We get proposals from all east-side watersheds; we plan to spend money in the Methow and Yakima.

**John Crandall – Methow Monitoring:** I have an update from Heide Andersen on the WCC crew; she will be convening a work group. There is a report from the Pacific Lamprey Conservation Initiative; the members are onboard with moving forward. A lamprey working group is working on a number of different fronts, including mainstem passage. There is a lot of money going into that, translocation of adults, raising larvae in hatcheries, and they are also looking at contaminants and other threats. There are working groups for each of those, screening and passage in the tributaries; different techniques are being tried – pretty interesting stuff. They are getting a lot of success for small amounts of money. A lot of tribes are involved.

**Hans Smith – Yakama Nation:** Chris Butler has awarded a construction contract for finishing up Chewuch Rivermile 15-20 and the Twentymile fan; it will include helicopter placements of wood. We're continuing our analysis on the Eightmile Creek fish passage barrier and will be looking at habitat conditions upstream of Twentymile.

From the 2010 RA, we are looking at the WDFW property around RM 4; the landowners are moving a house away from the left bank, looking at ways to address the erosion in the system; we are just starting an assessment of the area.

**Rob Crandall – Methow Natives:** I rented a building at TwispWorks where we will have a retail space. It also has bedrooms so it will be available for interns, etc. There are 3 bedrooms, full kitchen, big living room, outdoor space connected to the native garden. We will have a plant nursery there.

**Kristen Kirkby – CCFEG:** we are moving forward with Burns-Garrity; it's a perennial side channel project, still in early stages. Maddie and I tried to talk to folks in the Beaver Ponds reach; we have a couple of potential projects in the downstream end of the zone where we are working with MSRF. Soon I would like to meet with folks to discuss barriers ahead of the barrier assessment this summer.

**Mariah Mayfield – USFS:** it's end of year at the FS, so a lot of people out with Use or Lose time. Gene has a few things in the works for issues to be addressed in the future; we will be looking at grazing allotments and how we deal with irrigation diversions.

Mission Project – it will be going out for another comment period, but only for those who made previous comments and only on a portion of it; the document should be finalized soon, Gene is working on the Biological Assessment and that should be in February.

John – what is the process for getting involved in the restoration work up there?

Mariah – Crystal Elliot (TU) is taking the lead on that, right now the only thing that is really going forward are the BDAs and beaver reintroduction, and Crystal and Robes are working on that, also looking at culverts, Colville Tribes may be interested in that. Gene is the lead on the aquatic issues for the Mission Project.

**Jacqueline Wallace – TU:** we are hoping to go to construction on the Barkley Irrigation Project this summer; working with a landowner on the Methow south of Carlton, converting a surface diversion to a well. Also working with a landowner on Beaver Creek to convert him to a well.

**Lynda Hofmann – WDFW:** we are looking at the potential culvert replacement on Upper Bear Creek, would like to coordinate WDFW with the local FS; right now most of the work is happening at the regional level; mostly a heads up

**Rick Alford – Yakama Nation:** we are working on season ending activities. We have between 1.2-1.3 million eggs, picking among those to send to lower river facilities and they will come back to us in 2019. Discussion – adults that came back this year were offspring of adults that spawned in 2014 and then left as juveniles in 2016. They left post-fire, a good sign.

Rick – main densities of spawning distribution are mainly between Twisp and Carlton. Run sizes are similar to coastal stocks

**Jarred Johnson – Yakama Nation:** we just started our MOU process with WDFW on two projects, one on the Fawn Creek area, where we got good direction from WDFW, and the other is on WDFW land on Beaver Creek about 6 miles up.

Hans – it is good to know the Corps is planning to repair the Fawn Creek levee in 2018

Jarred – we went out with NOAA last week

Chris – I also have been talking with the County

Hans – a lot of discussion will take place

Chris – they did a full inspection this spring on all of the listed levees, and they proposed repairs on the Fawn Creek and Okanogan, we put them off a year in Okanogan

Jarred – we're still working with WSDOT on the Acord property on Beaver Creek

**Chris Johnson – MSRF:** we are giving presentations to the UCSRB board this month – one on outreach to allow sponsors to continue to use those funds

On the Barkley/MVID irrigation project, we are working on the FAA approval.

We are at 15% design for TRFP II, and we just finished the 30% review on Barkley Bear with RTT

On Twisp to Carlton, we had a meeting with landowners in addition to Kristen and Maddie's meeting

**Next MRC January 16, 2018**

<b>Definitions of Commonly used Acronyms</b>	
AEM	Action Effectiveness Monitoring
ANS	Aquatic Nuisance Species
AREMP	Aquatic and Riparian Effectiveness Monitoring Program
AU	Assessment Unit
BACI	Before, After, Control, Impact (study design type)
BDA	Beaver Dam Analogue
BEF	Bonneville Environmental Foundation
BO/BiOp	Biological Opinion
BPA	Bonneville Power Administration
CAC	Citizens Advisory Committee (for SRFB funding applications)
CAO	Critical Areas Ordinance
CBFWA	Columbia Basin Fish and Wildlife Authority (pronounced “cubfwah”)
CCFEG	Columbia Cascade Fisheries Enhancement Group
CCT	Colville Confederated Tribes (newer acronym is CTCR – see below)
CTCR	Confederated Tribes of the Colville Reservation (older acronym is CCT – see above)
CHaMP	Columbia Habitat Monitoring Program
CMZ	Channel Migration Zone
CREP	Conservation Reserve Enhancement Program
CSF	Community Salmon Fund
DEM	Digital Elevation Model
EDT	Ecosystem Diagnosis and Treatment
EQIP	Environmental Quality Incentives Program
ESA	Endangered Species Act
FCRPS	Federal Columbia River Power System
FFFPP	Family Forest Fish Passage Program
FIA	Forest Inventory and Analysis program (USFS)
Four “H”s	The four factors affecting salmon recovery: Hatchery, Hydro, Habitat, Harvest
HACCP	Hazard Analysis and Critical Control Point
HGMP	Hatchery Genetic Management Plan
HPA	Hydraulic Project Approval
HSRG	Hatchery Scientific Review Group
HWS	Habitat Work Schedule
IMW	Intensively Monitored Watershed
IS	Implementation Schedule
ISAB	Independent Science Advisory Board
ISEMP	Integrated Status and Effectiveness Monitoring Project
ISRP	Independent Scientific Review Panel (reviews BPA projects)
IT	Implementation Team
LW/LWD	Large Wood/Large Woody Debris
M2	Middle Methow (a project area defined as the reach between Winthrop and Twisp)
MaDMC	Monitoring and Data Management Committee (pronounced “madmac”)
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MRC	Methow Restoration Council
MSRF	Methow Salmon Recovery Foundation (pronounced “em-surf”)
MVRD	Methow Valley Ranger District

MWC	Methow Watershed Council
NFF	National Forest Foundation
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPCC	Northwest Power and Conservation Council
OCD	Okanogan Conservation District
OBMEP	Okanogan Basin Monitoring and Evaluation Program
OWL	Okanogan Wilderness League
PCSRF	Pacific Coastal Salmon Recovery Fund (pronounced "Pacsurf")
PHABSIM	Physical Habitat Simulation
PIBO	PACFISH/INFISH* Biological Opinion
PNAMP	Pacific Northwest Aquatic Monitoring Partnership
PUD	Public Utility District
QAQC	Quality Assurance, Quality Control
RA	Reach Assessment
RCO	(Washington State) Recreation and Conservation Office
REI	Reach-based Ecosystem Indicators (used in Reach Assessments)
RFEG	Regional Fisheries Enhancement Group
RFP	Request for Proposals
RM	River Mile
RPA	Reasonable and Prudent Alternative(s)
RTT	Regional Technical Team
SEPA	State Environmental Policy Act
SMP	Shoreline Management Plan
Snerd	Fish Capture-Snorkel Herding
SOAL	State Owned Aquatic Lands
SOW	Statement of Work
SPIF	Specific Project Information Form (used with the Corps ESA programmatic)
SRFB	(Washington State) Salmon Recovery Funding Board (pronounced "surfboard")
SRP	State Review Panel (for SRFB funding applications)
STEM Database	Status, Trend and Effectiveness Monitoring database at NOAA's Northwest Fisheries Science Center
UCSRB	Upper Columbia Salmon Recovery Board
TRT	Technical Recovery Team (NOAA)
USFS	US Forest Service
USGS	US Geological Survey
VSP	Viable Salmonid Population
WAT	Watershed Action Team (the MRC is our WAT)
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington Department of Natural Resources
WNFH	Winthrop National Fish Hatchery
WWP-TU	Washington Water Project of Trout Unlimited
YN	Yakama Nation

\*PACFISH/INFISH The PACFISH/INFISH Biological Opinion (PIBO) Effectiveness Monitoring Program was initiated in 1998 to provide a consistent framework for monitoring aquatic and riparian resources on most Forest Service and Bureau of Land Management lands within the Upper Columbia River Basin.