

Methow Restoration Council

November 21, 2017

Participants:

Name	Organization/Affiliation
Allen Lebovitz	DNR
Amy Martin	Okanogan Conservation District
Chris Johnson	MSRF
Greer Maier	UCSRB
Heide Andersen	Methow Conservancy
Jaqueline Wallace	TU
Jarred Johnson	Yakama Nation
Jason Lundgren	CCFEG
Jen Herdmann	CCFEG
Jenni Novak	WDFW
Jennifer Molesworth	Bureau of Reclamation
Jessica Goldberg	MSRF
John Crandall	MSRF
Joy Juelson	UCSRB
Ken Muir	Cascadia Conservation District
Kristen Kirkby	CCFEG
Maddie Eckmann	Yakama Nation
Mariah Mayfield	USFS
Robes Parrish	USFWS
Sandra Strieby	Local Citizen

John Crandall – Monitoring Update: Paper of the Month – *Multiscale Thermal Refugia and Stream Habitat Associations of Chinook Salmon in Northeastern Oregon*, Torgersen et. al. 1999. The researchers were mostly OSU folks in Corvallis. It was a study that looked at how Chinook adults in the middle and north fork of the John Day used habitat on their way up to spawn. They used FLIR and instream temperature loggers. They wanted to look at a variety of scales, and they found some patterns. Fish selected microhabitat in warmer streams, and in alluvial reaches, small pockets of cold water are important. They also found that fish pushed through warmer reaches to go upstream to deep pools. An interesting paper. They found temperature selection on both micro and macro scales in streams.

Next, here is a sneak preview of the Upper Columbia data gaps, a preview of what you will be looking at. This is something that RTT and MaDMC have been working on sporadically for 8-10 years now. It is a ranking of data gaps; things we think we want/need to know. We are going through a revision process of the list through MaDMC, and we've taken some gaps out, retooled others, and added some new things in. It's a list of things we want to know and understand. It includes key management questions that the data gap will address with each. For each gap, we have a category, sub category, geographic location, species, etc. We will rank the list, hopefully in December. The list will be tiered, but I'm not sure what that will look like or mean. It will tie to VSP, abundance and productivity, etc.; that will be how it is scored. The list may be ready for distribution by January. It will be a living document.

There was a webinar last week about temperature heterogeneity in streams, and the results were that temperature varies over space and time, being altered by land use. They were looking at relative refuges, areas of relatively cooler in warm stream. I am using something like this and looking at the

Methow, Twisp, and Chewuch longitudinal breakdowns of temperature, and I will do this especially for the Lower Methow Reach Assessment. We won't have the data to look at change over time. Water temperature is highly correlated to air temperature. Having long time series is helpful, and we only have 7 years of data

Chris Johnson – this ties into what Andy with USGS is doing, using fiber optics to take temperatures over a km; we will be tying that work into the beaver project

John – the take home is that if you are doing projects, think about temperature, and I mean more than just putting in a logger. Also, with loggers, where you put it matters. We have FLIR here from 2009.

Mariah Mayfield – I worked with a guy in grad school who had a cheaper way of doing similar work; you can use a temperature logger with a level logger and drag it along the stream, and if you have a GPS, you can get something like that

Chris – but that only works if that is a floatable stream.

Mariah - true

John – scale and precision matters

Heide Andersen – WACC in the Methow: I've got a bit of a presentation that I prepared for the Trails Collaborative. I'm here to talk about the WACC that we have used for the past few years. We are looking at going from a spike crew, which is from Wenatchee, and they come up for 6 weeks to work on our easements and WDFW easements. We are looking at the possibility of getting a crew that is based in the Methow with a crew leader with local expertise. We could also have a locally hired crew, but we would need to have enough demand and work for the crew for 6 months. There are costs associated with using the Wenatchee spike crew that make it more expensive than a locally based crew.

[PowerPoint]

This came up because we had a labor shortage for stewardship activities on our easements. We had two interns do a feasibility study in 2013. Then we did a second feasibility study, and developed a pilot program to bring in the spike crew as an easy first step.

In our first year, we got some donor funding; we paid for the crew to work on burned properties and then we did a cost share on other properties. It was a good experience, and we had an excellent crew, but they lacked strong leadership. Last year, we gave the program more input and feedback, and we had a great leader and crew. It costs about \$1000 per day, includes crew leader and crew, vehicle and tools. John – they've been doing the sediment sampling for about a decade and they cost about \$4800 for the week, but you lose a lot in the travel at each end of the week.

Discussion – If the Methow had a crew, someone would need to facilitate it, but individual organizations would need to facilitate their own activities. Once the crew is trained, they can do many types of activities

Heide – they say that restoration activities are the primary things they do

John – as Heide says, the crew leader is important

Discussion – cost per week would be the same for 6-month crews; may be some pushback from local contractors; Trails Collaborative will use some labor

Heide – many land trusts on the west side have a crew year-round; it will be key if WDFW and the Forest Service want to use them, especially for fence repair post-fire; it will come down to who can say that they have funding and can help pay. I think they need to know by January

Amy Martin – we have needs for planting

Jaqueline Wallace – would they be able to work in the Okanogan?

Heide – definitely. It would be great to plan it together with people who are interested, and it would be nice to identify the time of year people have needs

Jason Lundgren – I think it would be great to have a local crew, and I think that it could be fundable through the tributary or SRFB. It would allow our salmon recovery dollars to go further

Heide – anybody that is interested, email me and I will set up a meeting

Joy Juelson – UCSRB Updates: we have had some staff changes at UCSRB. James White was with us for 10 years, and recently he moved to Oregon with his family. Now we have a new James, James Fletcher in that position. He's been working with Wild Fish Conservancy in the research end of the world, an analyst. MarySutton went over to Cascadia Conservation District. Brian Abbot with RCO passed away, and Steve Martin moved into that position with GSRO; he's been working in the Columbia Basin, and he's focusing in on predation, which can be a hit of up to 35% of the springers.

SRFB process update: the SRFB report just came out. We are at the end of our process, where the SRFB funds the ranked list and blesses our projects, but we are waiting on a capital budget. Capacity funds may move forward in a special session, but SRFB funds are not certain. The PCSRF funds are there, but the state funds that are the match are held up with the capital budget.

[Project list] SRFB will make project decisions at their meeting on December 7, pending a capital budget. We will have some kind of debrief for the process. We also don't know the status of the 2018 SRFB round, whether it will be delayed or if we will have one.

Discussion – effects of delay of capital budget

Greer Maier– Upper Columbia Science Conference: the call for registrations went out, and this year there is a \$50 registration fee. If you are a sponsor or exhibitor, you get two free registrations.

The call for abstracts is closed, but if you know of any good talks let me know; we won't be making final decisions until the first week of December. We are getting a few members from the ISAB coming to present the results of their review of our UC spring chinook. We've been able to get some good speakers to commit to coming to the conference. There will be a social event and a silent auction on the night of the 24th. We have a room block at the Coast Hotel, but it fills up quickly, so reserve early. Let Barb or me know if you have questions about the conference.

Updates on the reach networks or Assessment Units (AUs): this is already done for the Methow (and Okanogan), but if you have areas in really small tribbs in the Wenatchee or Entiat that are important that isn't on the initial list let us know. RTT will make that decision at their next meeting December 13th. At that point, we will have an updated AU layer for the region.

The prioritization subgroup met, and Tracy has circulated an updated draft of the strategy; if you are interested in reviewing and commenting let Tracy know. They will be looking at that at their next meeting as well. This is a three step process for the region – update AUs, identify limiting factors and threats, and then prioritize projects and the WATs and the IT will help with that based on social and economic factors. The outcome will be a prioritized list of projects working from the AU to the population level scale. They will be pulling from the Reach Assessments, etc.

Chris – we need to distinguish between reach based and point based issues

Greer – that is why the WAT input is important

Jason – there also needs to be a connection with process; we tend to look at reaches separate from the processes that create them. We try to do process-based restoration, but I don't think we actually do it. I think we have a long way to go before we can link process with Assessment Units

Greer – I believe that the RTT is really thinking about that, and the actions to address the ECs don't necessarily have to occur in the AU

Jason – we are really tied to the Biological Strategy and the funding when it comes to making decisions, we do a lot of Band-Aid stuff

Greer – this process is taking place because we recognize that, and it gives the opportunity to think through what is the real issue and try to address it

Discussion – DNR uplands vs SOAL, having a connection in a document could be useful

Kristen Kirkby– after this prioritization, will it be a living document?

Greer – I think the Biological Strategy has always been a living document. Okanogan is on a schedule for updating EDT and that is when they can look at their priorities, but I think that any time things change they are open to updating the biological strategy.

Joy – to be clear on the roles, the RTT is running this process and will engage with the WATs; UCSRB staff is in a support role to the RTT. There is also a prioritization subgroup

Greer – the Methow is on a faster timeline than the Wenatchee and Entiat, Methow EDT will be done at the beginning of the year, and I'm not sure RTT has a schedule set yet. They are moving forward, initial steps are a little bit behind the scenes. Also, John Arterburn pulled data from EDT for the Okanogan, and RTT will be updating the current Biological Strategy soon with that. I'm not sure of the timeline; the intent is to work as quickly as we can.

Discussion – need to coordinate with Tracy to make sure that the Methow is represented in the prioritization subgroup/discussion, Jennifer may be able to participate, maybe John

Greer – HWS/IS: all 2016 completed projects need all of the required information. I will be pulling that data at the end of the month and will use it to make the report to NOAA.

Discussion – HWS, sorting, 2016 projects are the ones that need all of the information to be correct.

Then, sponsors need to make sure that the Implementation Schedule is cleaned up for future projects.

Maddie Eckmann – A revision to the guidance document for the HWS would be helpful now that the website has changed

Greer – I will do that and send a link to Jessica. All the data in HWS has to be updated by the end of the month, and I will send out a copy of the current data for Jessica to distribute

Joy – the IT will review and bless the list to NOAA on December 5th, and then our Board will approve it, and we will send it to NOAA on the 21st after Board approval. This is the record of projects in the Upper Columbia

Greer – we appreciate everyone's time, and if you have suggestions for improvements let us know. Also, if you have projects that were completed in 2017 please go through and mark them complete.

Chris – will the prioritization list be set in stone?

Greer – it will always be a draft, but I don't think that they have set a schedule

John – it's too big of an effort to do every year

Greer – project opportunities may be updated more frequently. You can have input on how often the prioritization of projects is updated, vs how often they go through the whole modeling effort

Joy – The next IT meeting is December 5; it is usually comprised of agencies, tribes, folks that work in salmon recovery, and try to have representation from the watersheds. Information sharing, getting input, and overcoming obstacles across the region. It will be 10-3, and the annual year in review, so that is why we need information on 2017 projects. We will also be focusing on the Entiat subbasin in the afternoon. We will also be highlighting projects, and Beaver project will be among those highlighted.

UCSRB Board meeting will be on December 21st. We will have outreach presentations from last year's grants. Usually we have an outreach grant process for Okanogan County, but this year it is on pause because of the capital budget. As soon as I know, I will run a process. Usually there is about \$25k.

Discussion – current use of these funds for outreach and education, need to keep the existing programs going, but there is need for project sustainability. The ongoing programs have a lot of value, because they build support and understanding of the broader work that we do

Joy – unfortunately, they may end up being PCSRF funds, which then can only be things that fall under project development, so they need to lead to projects; it will depend on how GSRO views it. We are fighting hard to keep the funding available.

Amy – having clear guidelines for adult outreach and project development would be helpful

Joy – it is lead entity funding, so we have to look at whether these actions will lead to projects, and the interpretation has been broad. Now we are hearing that we may need to justify more of a direct link to

projects. The more you can show the link, the more successful you can be. Citizen science may also be a more direct link.

John Crandall – Goat Creek Update: it's about 9 miles up from Goat Creek road, about a mile downstream from Vanderpool crossing. Not a lot of large wood near the stream due to logging, not a lot of complexity in the stream. Project went in to try to change the bed form to create areas of gravel deposition, creating areas of scour and pool creation targeted bull trout. There were two project areas where we had intensive project work, one at the crossing and one downstream where there were dispersed campgrounds. We put in 172 pieces of wood at the two locations, and between the two project areas we dropped about 30 trees into the creek with a chainsaw. The whole project was about 0.9 miles. Post project the pool frequency doubled, wood went way up, and we are getting some gravel deposition. [drone flight videos] A lot of the wood moved, and a lot moved downstream and formed jams; there are at least three places where the wood we cut made logjams. Redd counts for migratory fish in Goat Creek have been really low over time (all were upstream of culvert), but this year they were zero. We are looking for reasons for that; lower Goat Creek dewaterers and there is a canyon, but I did see a migrant fish. There is still some work to be done there. We did eDNA up there and as a result we extended where the redd survey goes upstream by a few km.

Robes – wood placement was all based on upstream analogs

John – we did find upstream from the crossing that several natural wood barriers have formed upstream, so currently there is less habitat available up there for them

Robes – we had some significant natural passage problems up there before; it comes and goes, and this year we had such high, sustained flows. It is a dynamic place, so they probably won't stay barriers forever, but may persist for a while.

Discussion – wood placements, criteria, wood movement during high flows, not a recreational stream and not infrastructure concerns

Robes – we talked about this as a bull trout project, but there is no reason that it isn't equally benefitting steelhead, but we don't know that because it is so inaccessible to people during steelhead spawning

Discussion – other project benefits

Roundtable

Kristen Kirkby – CCFEG: we've been doing education stuff, and we continuing to develop potential projects in the Twisp to Carlton Reach in the Beaver Pond neighborhood, will be partnering with MSRF, and may be working with the Bureau on that for technical support.

Jenni Novak – WDFW: we've been working with engineers to work on designs for fish screens on the Icicle in the Wenatchee. I have also been looking at potential mods to the spillway at Twisp Power; I have been working with their ditch master, and we may be able to modify the operation of the diversion to address stranding issues. We may need to pipe the spillway to prevent stranding. In addition, I have been looking at the Skyline where we get some stranding at shut off.

Chris – one of the things we've talked about is putting a second spillway before the screen; then it would dump into the MacPherson channel area.

Jenni – it was designed to have it drain out the upstream end of the pipe, but there has been deposition over the years and I know we are getting stranding. It would be nice to do something to get the fish out of there.

The other thing is I've gotten a few emails, have been working with Walt Foster's daughter after we replaced the screen at Goat Creek; they may be interested in purchasing a headgate if someone might help them install it.

Chris – what do they need?

Jenni – they can use the existing headgate, but it is an old wooden frame that is falling apart, the gate itself is fine, so it is leaky, it is impossible to shut down. Initially I was thinking a pre-cast concrete box would work, but the structure is pretty long.

Chris – I have a few salvaged steel box headgates you can look at next time you are up

Jennifer Molesworth – Reclamation: tonight Amy Snover from the Climate Impacts Group at UW is giving a talk on climate change, water, and our future hydrograph. It's part of the MWC speaker series.

I'm reviewing the Beaver Creek RA; it will be a good document, thanks to the YN for pulling it together. It has green LiDAR of Beaver Creek.

We're at 30% design for Barkley Bear, and we're working on Twisp River Floodplain Phase II, waiting on appraisals to go through. We will soon be working on the Sugar Levee project; we will be looking at both sides of the river. It will probably be multiple projects that come out of it, first year will be assessment, survey, etc.

Allen Lebovitz – please stay in touch with me on that; it is exciting

Chris – a few of the previous roadblocks with the Corps and the County have been resolved

Jennifer – we're also working on a new round with M2 3R, and adaptive management at Whitefish with MSRF – the base flow condition there is a little lower than we had hoped.

We're working with CCFEG on Twisp to Carlton, and Burns Garrity

Jennifer – we're also working on a report on all of the monitoring efforts that have been going on. It will be available for review soon, on whether we can say anything about all of the monitoring work that has been done on whether we have made any difference for fish. Early 2018.

John Crandall – Methow Monitoring: the Methow River Watershed signs are installed, one is on HWY 153 heading up from Pateros, one is on HWY 20 on the Loop, and one is on HWY 20 on WA pass.

There will be a new updated Columbia Basin lamprey identification guide. There will be a lamprey summit down in Portland in a few weeks.

The Lower Methow Reach Assessment is going; the 1D model is done. We will run HSI on the entire reach, and will add in fish data, etc.

Jason Lundgren – CCFEG: we hired a new staff member, so we are complete now. Jen Herdmann is from Colorado; she will do mostly education and outreach. She will also help in the field, and help with construction projects. She will be helping Kristen a lot.

I've been working for a long time to get a nutrient enhancement going, got a permit from Ecology to do it in the Chiwawa; it has been a long time coming and I'm very excited.

We're working on the Twisp to Carlton stuff, and we will have regular updates on that. Kristen will develop an adaptive management project at Silver, and there additional things we want to do there, like adding some more wood

TU has extra fish tanks, so if you have ideas for more salmon in the classroom areas let me know

WE have a couple of FFFPP projects that will be funded if the capital budget is approved. One on Benson Creek. We got a grant from the Community Foundation for outreach in the region. Burns Garrity is moving again.

Amy Martin – Okanogan Conservation District: we are still working on the Voluntary Stewardship Program with the county. We are working on getting review from stakeholders. It will go to the technical review panel in June. In Okanogan, we will host a river film produced in the Canadian Okanagan in March, which will also be a fundraiser for education programs. We are doing planning on a project on the Okanogan River, south of Oroville. Working with CTCR on that one.

Maddie Eckmann – YN: Chris Butler wanted me to pass on that we have completed all topo surveys on the Chewuch for RM 4.2-5 and 8.1-9.1, and for the Upper Chewuch RA. He will be working on that over the winter.

I got out, did a night snorkel at Fender, and saw a lot of fish, 170 Chinook and around 50 steelhead and a pair of coho adults, 10 brook trout. Not as efficient because I was alone. I did a day snorkel first, and I only saw about 10 fish total.

We've completed Alder Creek surveys in Twisp to Carlton reach, from just below Silver to around river mile 33. Those are done, and we're working with MSRF, CCFEG, and others on the Beaver Pond, looking at surveys in the area to see what types of restoration options there are.

Mariah Mayfield – USFS: I'm back in the Methow after being detailed to Chelan/Entiat. The FS this year is doing something different with our Program of Work. Forest-wide, we have things that have been put off and we can't put them off any longer, renewing programmatics, grazing planting, etc. Most of our resources are going to these priorities, which means that most restoration is off the books for the year, and most partner projects are on hold while we take care of this. It will be an interesting year, but I hope it will help us streamline things in the future.

Jason – It would be beneficial for some of us to understand the program of work, to understand how we can sync up our efforts with your schedule.

Mariah – we'd like to know as well. This year is up in the air, but planning for FY 19 will start in January and we will prioritize projects in March. When they start that process of asking for projects, we have someone who will be soliciting information from various groups. This last year we had the same kind of timeline, but it didn't happen.

Allen – do you know how that planning process fits in with the Good Neighbor Authority?

Mariah – I think most of that is fire-related, and they aren't on the same process. I really don't know anything about that process.

Jarred Johnson – YN: we recently completed the beaver creek RA, and it is going through RTT review. We paired that up with the Lower Wenatchee RA, and those should be wrapped up soon. We are trying to get everything done by January 1st.

For summer 2018 we are looking at a Twisp to Carlton river user and recreation assessment, which will be available for everyone to use

We are working with MSRF to do some feasibility analysis on Poorman Creek side channel; we did some pit tests, and so far, it looks positive. We have a design contract with Cardno, and they will be looking at feasibility.

We are working with WDFW on about a mile section on Beaver Creek near the big field; it will be a wood project. Also working with a private landowner on Beaver Creek whose bridge washed out and DOT has a chronic environmental deficiency site there.

We have three different projects with the FS. We started the MOU process with WDFW for the Fawn Creek area, which will involve many stakeholders

Allen Lebovitz – DNR: I will continue to try to coordinate, and if you need me to come out here let me know. I want to extend thanks to Jarred and the YN for getting the Big Valley project done this year. I would like to see more of that done on SOAL, also thanks to Chris for finding a home for the people mover. Cindy Preston is back as the land manager for the area and her contact is 509-925-0969, Cindy.preston@dnr.wa.gov. We are a little hamstrung like others due to the capital budget. Our new commissioner is really committed to restoration. We are working on a strategic plan, and I think we will

have a new and increased focus on restoration, so once we have funding, please do think of us as a potential partner. I am eager to figure out how to work more with the Forest Service and DNR uplands.

Sandra Strieby: I'm a land use and natural resource planner, and I also do some freelance writing. I have been working in the basin for several decades, and I'm thinking about ways to get information out to the public. Contact me at 997-2576 if you have ideas.

Chris Johnson – MSRF: we just put in a 70 ft. bridge on Frazer Creek, landowner put in a 50% match. A large bridge with a split channel below it and a 45 ft. free span, a lot better than the 24-inch culvert that failed. Jay Kidder is the designer, with RCO funds. They had to pull many burned cottonwoods to set the bridge, and the landowner has agreed to scatter it instead of burning it.

That is the second to last one, the last one the landowner turned down our first offer and their culvert failed and they now have a 90 ft. chasm and options are more difficult.

Beaver Project – we're looking for opportunities to work in the anadromous zone, as well as additional funding opportunities

Looking at the area upstream of Upper Beaver/Batie where the creek nearly went through the road, have an application in to Tributary Committee for an appraisal to purchase the upstream property.

Next MRC Meeting December 19

Definitions of Commonly used Acronyms	
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.