Methow Restoration Council
February 19, 2019

Participants:

Name	Organization/Affiliation
Greer Maier	UCSRB
Hans Smith	Yakama Nation
Jenni Novak	WDFW
Jennifer Molesworth	Reclamation
Jessica Goldberg	MSRF
John Arterburn	Colville Tribes
John Crandall	MSRF
Kristen Kirkby	CCFEG
Maddie Eckmann	Yakama Nation
Paul Wagner	Colville Tribes
Sarah Walker	UCSRB
Steve Kolk	Reclamation

Meeting Notes:

Kristen Kirkby – CCFEG: Methow Barrier Assessment Update: We're looking for some feedback on a few things. We are entering our second field season. We got funding from SRFB and Tributary Committee for barrier and diversion assessments – a comprehensive assessment on fish bearing streams in the Methow. We used the WDFW protocol, had a crew of four out doing surveys. They got quite a bit of work done last year; this year we will be hiring 2-4 people
Discussion – sources of information to determine which additional streams should be surveyed, looking at all fish bearing streams, not just anadromous, fraction of passability rating is a range of possibility passability in bins: 0, .33, .67, 1, and unknown; it is not a percent passability for a specific stream. Steelhead IP layer is good to look at because not just anadromy. Some will remain unknown if the characteristics of the downstream reach aren't known
Kristen – my hope is that people can use this to apply for FFFPP funding, which is not dependent on anadromy. Data collected will be summarized and put into the UCSRB prioritization strategy. Data will also be available for people to use, available from CCFEG or WDFW. This year will focus more on private land, which will take longer, especially with absentee landowners. Will be doing more to focus on addressing private landowner issues
Jenni Novak – we've made the map more user friendly, hoping to play a role in helping to clean up the map/database
Discussion – need to zoom into the map to see if a point is on a mainstem or a tributary
Greer Maier – if the crew is mapping something that is really close to where a tributary enters a mainstem it's important that they map it really well
Kristen – WDFW quality checks all of the data when we enter it and they call us and ask questions
Greer – may need to move the point a little way upstream on the trib
Discussion – changing symbology, people need to zoom into the data and click on it to be able to see whether a point is on the mainstem or on a small trib
Kristen – we will be focusing on private land this year, but need feedback on where we should go
Jenni N – we need info on habitat as well

Discussion – crew is not doing habitat assessment above the barriers, not feasible and would be especially difficult with private landowners
John Arterburn – to the extent possible, if you can make sure that every reach in the EDT reach layer is included, that would be my preference
John Crandall – EDT plus bull trout would be the first priority
Discussion – focusing on natural barriers, culverts. Crew is taking minimal documentation on irrigation diversions and passing them along to WDFW. Minimal documentation/noting of natural barriers
Jenni N – we don't have staff to review every diversion at this time
Kristen – our crews have minimal training in assessing irrigation diversions
Discussion – some diversions haven't been looked at, once we have prioritization we will look more closely
John A – natural barrier info is really useful to get as many as possible. One way to boil that work down is Ryan Klett has developed a GIS layer that helps identify likely places where there will be natural barriers that only need to be ground-truthed. We found a bunch of new ones we were unaware of when we did that
Kristen – it would be interesting to see if there is a difference between that and the Forest Service layer
Greer –Tracy Hillman is looking at that for the Wenatchee; we should run it for the region, to look at habitat available above natural barriers
John A – it's pretty accurate in predicting where you are going to find a natural barriers. It doesn't pinpoint an exact reach, but narrows down an area
Discussion – looking at potential for removing natural barriers

John Arterburn – Methow Monitoring Habitat Data Gaps: we have a Methow Data Gaps report available on the OBMEP site: https://www.okanoganmonitoring.org/Reports/ViewReportsForType/8. It's really quick reading, the report portion in only about 6-7 pages long, the appendix is quite lengthy. It will identify every reach and every input to EDT and the level of detail available to populate that. It's a lot of information, and a bit daunting. There is a single results and conclusions page: when we did EDT work, the majority of the information was from one-off assessments. This doesn't establish a very good baseline for status and trend reporting, which is what we use for the model. It's a matter of concentrated effort and continued need to update things unless you target/monitor for a specific data set. One of the criticisms we have heard is a frustration that Wolf Creek is coming up so high in the prioritization. People who know the basin are confused, and Wolf Creek is one of the places where we have considerable data gaps. We did the best we could with what we have available.
Jenny Molesworth/John C – The FS took flows in Wolf Creek for a while; it is regulated. That was for 2-3 years, around 1998-99
John A – truncated data sets are problematic. We also couldn't find sediment data. Ideally, you need the values for every reach in the stream. I'm trying to highlight the fact that there are huge data needs. The way to solve it moving forward is to focus monitoring on these data gaps, and we've lost monitoring in the Methow. Some of the best data you can apply to the data is flow monitoring, sediment monitoring, gradient monitoring, and these should be a high priority. We can identify a specific need for information that is missing to help us make better decisions. I'm trying to get people on board with getting monitoring, particularly habitat monitoring in the Methow. We still don't have a monitoring plan for the Upper Columbia.
John C – we do have a monitoring plan, but it could use updating. The gaps that you are mentioning are specifically for EDT, but not everyone agrees that this is the need. Until we change the current monitoring strategy, it is the one that we have. We did lose CHaMP, but we still have several other programs. If we want the monitoring to be EDT specific, then the region needs to get behind it.

Otherwise we get a one-off. It is a bigger conversation, needs to be regionally set up – we need to have a regional strategy.
John A – the monitoring in the Methow only covers about 20% of the need
John C – for EDT. We also need to have good monitoring for how the condition is changing over time. The Reach Assessments have real data
Jenny M– some level or repeating reach assessments to understand how the streams are changing, something iterative. Reclamation dollars are going to be going into monitoring specific reaches where we have projects
Discussion – FS stream surveys aren't going to be done any more, the stream inventory was really good because it was repeatable, rapid, and covered the whole stream
John A – the problem with Reach Assessments is that they aren't iterative; we need to develop the need for the habitat monitoring
Greer – at the last RTT meeting the action item was to get the MaDMC committee to look at this and get back to the RTT. We need to have the MaDMC come out with our priorities, need some level of agreement on the data gaps that are needed for the decisions that are being made now, hope to start that conversation with the MaDMC
John A – some things like gradient could be a one-off, better to measure it in specific areas. Trying to give some specific targeted advice on things that we could be doing now while we work out the long-term plan

Hans Smith – one thing that is missing is the entity that is responsibility for the effort, contracting
John A – it is important to the funding agencies to hear the message that it is a need
Jenny M – people in this room are focused on getting projects on the ground, monitoring for the projects
Discussion – Champ and ISEMP didn't effect projects specifically, need to communicate with the funders about what we need for habitat monitoring
Sarah Walker – I heard MaDMC discussed a couple of times, a vehicle to start the conversation, what do people think about that approach?
Jenny M – I think until the sponsors need it for project development, I worry they don't have the time or resources to really do it
Greer – they can start by identifying the customers in the region to identify the needs of different customers at different stages of the process, anything I can get from the region to take to those forums would be really helpful
John C – we're trying to get to recovery. NOAA has put out what they need. The one thing we may be overlooking is that the only fish we have that have very specific needs for habitat are bull trout – they are the most inclusive species we have in terms of recovery because their habitat covers everything else. The critical habitat parts are very close to being spot on; there are only a couple places that they've missed. There will be an action plan for the recovery zone and then will start getting into the specifics. We need to work with USFWS and hand them their recovery plan on a platter
Brian – requirement for FMO habitat will not account for rearing juveniles of the other species
Jenny M – it is a good thing for the WATs to see what we are missing and what we need; this is an IT issue as well

Greer Maier– RTT AU Draft Priorities: we have a website that is tracking all of the different pieces of this. Have metrics that will be used to score each AU; the weights and scoring criteria are still in draft. They calculate how much of the IP is occupied, so the scores will be higher for restoring IP and for protecting highly occupied IP. Life stage use, AUs that support multiple life stages, they are still

considering whether restoration rules will be the same as protection, prioritizing restoration areas that are missing key life stages. New update to fish data will look at what is there and what is missing
Kristen – how do you determine what should be there?
Greer – it is professional judgement at this point, John Crandall populated a lot of the data for the Methow; if you feel like you can contribute to populating these spreadsheets, please let me know. A good point; we need to make sure that we are fulfilling all of the life history needs of the species.
Kristen – so this is being populated by people who have on the ground data?
Greer – the fish data was contracted out to a consultant, it was handed to me, and then we started asking some of these questions. Not sure how in depth we will be able to get, it may be professional judgement and then the next iteration we can do a better job. For some of them we do have real data, like the redd layer
Jenny M – do you think you have a lot of gaps in it?
John C – the best thing we have now for this are redd locations; we have GPS points for many years on adult spawning. Also, how do we define the grey areas? I overlapped everything, they need strict definitions so that you can understand and specifically define what you are looking at, breaks for summer vs. winter holding. First you need to look at the layer of AUs, pulled out the mainstem. We know almost nothing about juvenile use and rearing.
Greer – we have a data portal, and a map portal, creating web apps to explore the data so you don't have to download all of the data. We need to QAQC and get these data correct, if you would like to help please let me know
John C – I went through it, and it definitely needs more eyes on it. I think send it out and have people comment on it
Greer – if you want to help with this please let me know. Spawner abundance definitely needs QAQC; the data seems to have a lot of errors
Jenny M – it would be good if the people collecting the data do that
John C – redds per mile seems like a good way to do it, not fish per mile
Greer – it is currently set up as fish per survey km, but in some of the small streams they only surveyed the lower km
Discussion – methods, issues, spring chinook surveys are complete census, steelhead are harder because flows come up, dependent on PIT tags, estimates
Greer – habitat quality, this one is complicated, data is on a web app, currently a composite score of cold, connected, complex, clean. We had to use data sets that were readily available, common for the region, and not specific to an area. For protection, the higher quality habitat, the higher priority, the priority for restoration is the medium – restorable habitat quality. Most habitat is some shade of restorable, the tool prioritizes areas that are more restorable to less restorable. We used a consistent methodology in comparing AUs to one another
Climate change similar used to barrier prioritization, uses models, and looks at how flows change over time
Land stewardship – percent of the watershed that is protected
Discussion – public lands are considered "protected," even if they are grazed, pretty coarse scale, indicator of future security of the investment
Non-native species – looks at number of non-native species, could use input and QAQC
Greer – all of the metrics and the data are in a spreadsheet, can look at the raw data and the scores that are generated, indicator weights, all the pieces of the tool. It's a transparent and interactive tool, you can also manipulate it and see where it affects the outcome. The MRC has a key role in the QAQC, whether it reflects your understanding of what is happening in the Methow. Hope to have draft priorities next month.

John A – on the functionality of this thing, you can filter each column, but you can't reshape the table in terms of ranking it in terms of another score, and you can't re-sort the results because it messes up all of the values
Greer – it is in a worksheet that is two over, the view when you download it is wrong. I will reupload it so that the initial view is what you are looking for. All of the N/As are because of the fish data that we need to fix
Play around with this, knowing that this is your chance to familiarize yourself with it, know that the fish data has been taken out and is being dealt with separately, so it isn't accurate now. If you can, call into the next RTT meetings
Discussion – fish data, fish data in the tool currently is not accurate and being QAQC'd in a separate spreadsheet and will be cleaned up
John C – we need to have definitions so that we are talking about the same thing in each area, everyone defining the life stages in the same way. Need to have different life stages for bull trout as well, they don't have the same
Greer – will work on fixing it and bring it back to MRC for comment
John C – pay attention to the weightings as well
Greer – may be a survey for weighting once you understand the data
John A – it's important to understand what went into these things before you weight them, often things are being used more than once, like temperature
Discussion – uses NOAA IP layer, except for bull trout, which is the layer developed for the barrier prioritization a mixture of climate shield, norwest, and steelhead IP
Greer – the goal was to have the draft AU priority by February, now hoping for March before the SRFB round, the next step 2 is to dig into prioritizing reaches, limiting factors, activity types

Sarah Walker – RTT Prioritization – Step 3: Feasibility: Step 3 to prioritization is feasibility, and I'm engaging the WATs to have a common currency to how we talk about feasibility. Different sponsors may have varying definitions of feasibility. Tracy has some straw dog bullets for how to define feasibility, so RAs have some of that. Guidance from the RTT is that the WATs need to develop some kind of consensus on feasibility. This is a task we can get going on now before we get lists. Will be working to reach out to the WATs with an updated version of the document and will have the discussion at the IT meeting in March. I pushed on the RTT to start getting some information out to the WATS.

Round Table

Jennifer Molesworth – Reclamation: our Funding Opportunity Announcement (FOA) is out
Steve Kolk – Reclamation: the Announcement is Upper Columbia-wide for sponsors that are interested in securing some project development funds. There is an emphasis on smaller projects that allow individual sponsors to complete more of the actions that are involved in implementation, could involve design. Smaller projects, like Cheap and Cheerful, BDAs, smaller crossings. We have time at the IT meeting to discuss and have their questions answered
Jenny M – could be a five-year agreement
Jenny M – the Barkley pipe project first phase has begun construction, the modification of the headgate at MVID, they are mobilized and just waiting for warmer weather, moving along, will be a lot going on this spring

Greer Maier – UCSRB: There are changes to Manual 18 coming soon, Pete will finalize the regional process guide when that comes out. The SRFB kickoff is March 13th from 1-4 at the CFNCW. I have been updating the JotForm to make it easier to use – if you had issues that you want fixed let me know ASAP.

For assessment proposals, if you have any please let Pete know, we have a cap this year, and if you are doing monitoring we have a cap on that as well
John C – there is a tiered scored data gaps list that you have to work from for monitoring projects
Greer – the Salmon Recovery Conference is in Tacoma this year, register now for early bird pricing
John A – it overlaps with WA/BC AFS
Greer – our regional science conference is currently scheduled for January 22nd and 23rd, I may move it because of the possibility of government shut downs...
We have a board meeting on the 28th, will be reviewing the hydropower report, update on prioritization

John Crandall – MSRF: the Lower Methow Reach Assessment is moving along, bull trout – from this year's survey we got shut out of many places because of fires, we went to places where we hadn't been surveying and found bull trout spawning in places where we hadn't even been looking, took eDNA samples, will be looking at more areas where they are unknown. There's a lot spawning in Cedar Creek, Robinson, Eightmile Creek some of the lowest elevation spawning. We're using eDNA above the upper barrier, every sample we took in Eightmile in 2016 and 2017 came back positive for bull trout, basically bull trout the whole way up. We're also running the samples we got this year also for brook trout. EDNA opens the door up for more investigation.
It would be great to get people together to discuss outreach and education plan for the year.

Kristen Kirkby – CCFEG: we are hiring a new CCFEG staff for the Methow, hopefully this week; we have some good candidates. Hope to have someone starting up here in April. We'll be hiring a barrier crew for Methow and Entiat. Burns Garrity is on hold; WDFW wants to wait on high water to see what happens. Hancock Springs we are working on this year, looking for small diameter wood with rootwads, will be starting in late March, early April

Brian Fisher – MSRF: we are moving forward with TRFP Phase II and will have construction this summer, still up in the air on construction at Barkley Bear whether we do some this year or all next year.

John Arterburn – Colville Tribes: we have an RFP for EDT model for including Ecological Concerns and some other regional concerns that have been expressed
Discussion – need more money to include bull trout

Jenni Novak – WDFW: we finished fixing the upper Wolf headgate in September. I've got an eye on Twisp Power, put a trash rack in, would like to see them take and spill less water; it creates a stranding hazard. The trash rack should help with the icing, hoping to fix with management changes.
At MVID – I would like to see a new fish bypass, the bypass is too high, so the sluice is what is used but this year it was plugged
Discussion – fish bypass and sluice at MVID
Jenni N – I have some money set aside for projects that come out of the barrier assessment, if you have diversions that you are concerned about, I would be happy to partner on that. Let me know.

Maddie Eckmann – Yakama Nation: we're continuing development on the Alder Creek projects, we've broken it into three different construction projects slated to go to construction over three years starting in 2020. Mainstem wood and floodplain projects.

Paul Wagner – Colville Tribes: we have MOAs in place for TU and MSRF to partner and do restoration projects in the valley, streamlines the contracting process. I just finished my annual report, and am

going through a project prioritization process using EDT results and preparing projects for our July 1 contract.

Next MRC April 16

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
EC	Ecological Concern
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