

Methow Restoration Council

October 18, 2016

Participants:

Name	Organization/Affiliation
Brian Fisher	MSRF
Chris Johnson	MSRF
Crystal Elliot	TU
Jenni Novak	WDFW
Jessica Goldberg	MSRF
John Crandall	MRC
Ken Muir	USFWS
Kirsten Kirkby	CCFEG
Lee Bernheisel	OWL
Mariah Mayfield	USFS
MarySutton Carruthers	UCSRB
Nell Scott	TU-Klamath
Paul Wagner	Colville Tribes
Pete Teigen	UCSRB
Rick Alford	Yakama Nation
Robes Parrish	USFWS
Susan Crampton	Local Citizen

Meeting Notes:

John Crandall – Monitoring Update: Lamprey update – last fall late September the Yakima Nation released about 300 adult Pacific lamprey that they got from downstream on the Columbia. They released at Carlton hole, Twisp confluence, and Chewuch confluence. This was done because the adult returns at Wells have been so low for many years. There has not been a strong run of Lamprey in the Upper Columbia since about 2003. If adults spawn and make ammocoetes, then the adults home in on pheromones from the ammocoetes. They were all pit tagged, so it has been interesting to see them move around. Most have gone up the Chewuch, none up the Twisp, and some in the Upper Methow, where we haven't seen them previously, but there is good habitat. This August, I worked with the YN to look for larval lamprey. It was an interesting year; we had a 5-year flow event and a lot of sand/silt movement. This moved some of the long-term larval monitoring sites around, and previous monitoring sites aren't such good lamprey habitat anymore. We need to sample appropriate habitat in order to find them, so we will need to think about how we sample. We had the fires, and in a spot below Danzell Road that was very affected with nothing seen post-fire, now two years later we found 140 larvae. We even saw young of the year larvae, which we had never seen before. We will sample some to see if they were progeny of the released adults. We saw the young of the year at a number of sites. Larvae stay in the silts for 7-8 years, and they haven't been replenished, so seeing the young of the year is exciting, also exciting to see returning use in areas that were affected by the fires.

Chris Johnson – have you seen anything up beaver creek?

John – we've never seen them up there, even before the fires. So far, this year seven lamprey have been counted over Wells Dam. However, there were more than 3000 at Rocky Reach, and higher further downstream. Fish ladders are different and the counting stations may be different too. Fall is when the adults return.

Discussion – returns over the dams, various species, predation

MarySutton Carruthers – there is some interesting data coming from NOAA, looking at arrival to Bonneville combined with PIT tag information to try to get information on predation for specific populations. They are finding that the populations that come earlier to the dams are subject to more predation, and ours are some of the earliest to arrive. Methow spring Chinook: 2015 estimated predation from pinnipeds is 35% of the population from the mouth to Bonneville dam, accounting for other things that affect survival. They are also looking at some delayed mortality from predation that could be associated with some of the pre-spawn mortality that we are seeing. Still preliminary data, more to come on that.

Susan Cramptom – what kinds of things affect sea lion population size?

MarySutton - ocean conditions, other than that I'm not sure

Kristen Kirkby – Columbia Basin Bulletin had some interesting items on that

(<https://www.cbulletin.com/437749.aspx>)

Chris – how are they coming up with the statistical number?

MarySutton – I'm not certain of the details; Mark Sorel would have that information, some combination of PIT tag data, modeling information, run information, etc.

Robes Parrish – so with the later run time, do the sea lions go back to sea?

Discussion – a lot going on, some culling of sea lion effects, also avian predation, timing; hatchery fish from Leavenworth come back first, so may be protecting other fish or may be attracting predation

John – paper of the month: *Rethinking the longitudinal stream temperature paradigm: region-wide comparison of thermal infrared imagery reveals unexpected complexity of river temperatures* (Fullerton et al, 2015). They took a lot of temperature data from all over the Pacific Northwest. It is not just cold at the top of the stream and warmer at the downstream end. Many things drive cold water at the top; different climate change scenarios can affect how these temperature profiles can be changed

Lee Bernheisel – how many temperature monitoring stations do we have in the Methow?

John – around 300. The Beaver project has a lot of them. The temperature data gets uploaded into the Ecology EIM database. It is not real time. The loggers sit in the streams for about 6 months; then we go download the data and then they are uploaded to Ecology. It happens about a 2x per year, and there is a bit of a backlog in the processing at Ecology. We have some of the best temperature monitoring around.

Crystal Elliot and Robes Parrish – Presentation:

Triple Creek Restoration Project – Beaver Dam Analogs at Work, Chesaw, WA

Crystal – this project was not in the Methow, but we thought it would be interesting to the group. A very collaborative project – Okanogan Highlands Alliance, TU, USFWS, WDNR, Ecology, WDFW, NOAA, and CTCR were all partners. Robes contributed all the baseline data collection, design work, and some implementation, funding. Ecology and DNR contributed funding/in kind. WDFW gave some design support, Michael Pollack from NOAA Fisheries Science Center gave advice, and CTCR did the cultural. The area is called Triple Creek, but it is actually on Myers Creek. It is at the base of Buckhorn Mountain, which is the largest Gold mine in the state. Wetland area at the southern end of the site, sensitive plants and amphibians, rare birds. The norther part of the site needed help, stream incision after a flood in the late 90s, and the beavers left the site.

Susan – do you know why the flooding occurred?

Crystal – that is up for debate, many locals blame a clear cut upstream, but it is speculation at this point. It was a higher flood event than is usual for the stream.

[Aerial photos - time series]

Robes – two beaver ponds mostly went away and the stream downcut. We started this in 2014, but NRCS was invited to the property earlier to look at opportunities to restore the meadow. NRCS originally looked at full channel reconstruction, but the project was too much disturbance for the landowners. We proposed the current design, which was more acceptable to the landowners.

Crystal – right now, the site is virtually all reed canary grass

Robes – about 6200 ft of topo survey, localized incision is about 1900 ft; very flat

Goal – improve ecological complexity and function within the reach

Objectives:

- Increase channel length
- Raise streambed elevation
- Increase sub-surface water elevation – we have a network of piezometers and the channel acts like a drain
- Re-establish native riparian vegetation within the channel corridor
- Re-establish favorable geomorphic and vegetative conditions for beaver

Robes – the goal is to trap sediment within the incision trench to lead to deposition and multi thread channels. Need to intervene at the right time to make this happen. Over time processes would lead to similar effects, but a long time. Incised channel hadn't changed much over time since the incision in the 90s. Goals geomorphically focused, not fish-based. A Red-band stream, but there are a lot of brook trout. No anadromous species because of Chief Joseph dam. We put in plots of vegetation on the sides that will engage as the channel aggrades. The two structure types are what I call "deflector dams", a series of small diameter posts to span 75% of the bank full channel. These are intended to push water in one direction and scour the opposite bank, done in a series with the second type, The Post-line wicker weave type have a curved shape, and this is where the aggradation would occur. We expect that the structures would be flanked in time, which is expected for beaver dams. Chose our spacing based on the existing plan form of the channel, trying to further elongate the meanders.

Crystal – we already have beavers and bear at the site

Robes – have also had a lot of wildlife, including otters, screech owls, deer, ducks, etc.

We used a mini excavator with an extendable boom, and a hydraulic impact driver. We had to trim the posts to make them fit, and we also pencil sharpened the bottoms. Different equipment might be adaptable for larger material. We went for 50% embedment, not all piles were the same length, and the longest piles were on the banks. Having a small diameter substrate is key with these smaller diameter piles. In banks where you expect erosion, you need to go deep with the piles. Many of the piles were easier to put in by hand. Simple tools and a small crew can do a lot in a small stream.

Brian Fisher – so do you come back and do additional weaving when it gets flanked?

Robes – yes. There is a large adaptive management component with this, these will not be one and done. Need to be able to work with the channel as it evolves. Plan for a longer-term effort.

Ken Muir – the contractor brought in dogwood cottonwood, alder, and you just weave it in

Robes – was very difficult to estimate the weave quantity, ended up needing more than expected

Crystal – for the livestakes, willow worked the best, about one inch in diameter

Robes – and as green as possible

Discussion – using slash for the weaving, fir works but is brittle, mix is good to encourage resprouting, can almost completely bury livestakes

Discussion – permitting, work windows, if fill or excavation need a Corps permit, fish passage requirements and porosity, sediment supply

MarySutton Carruthers – UCSRB Updates: as many of you have heard, we are in our five-year adaptive management cycle with the recovery plan. We are asking ourselves and our partners what we should do to adaptively manage and what should we do differently than last time. We are thinking about looking at how we are prioritizing our actions. We have heard concerns that the board or RTT might come up with a list of projects that we would hand off to implementers, and that is not what we plan to do. We had a presentation on some different processes. We want to hear from the WATs. One thought is that the Okanogan could be a model with their EDT process.

Jessica – to clarify, you are talking about how we adaptively manage the implementation of the Recovery Plan itself, not the individual projects that we have put on the ground

MarySutton – yes. We are looking at finding the best framework that leads us to recovery. We don't want to be pushing an agenda

Chris – the WAT is not a single voice, does not have a single voice or opinion. Each project sponsor is subject to different rules on how they spend their money, how their projects are reviewed, etc. We all have a different perspective. The concern is that it is a model-based thing that it needs to be iterative with regard to the reality on the ground.

MarySutton – agree that the feasibility for projects best lies in these forums. We are looking at whether there is a better way to get the biological information into the decision making.

Chris – we have the Reach Assessments, and I would be curious to hear if people think that there is something missing from those, or if we need another layer, etc.

Robes – the RAs were very geomorphically based, what is missing is the fish component. I also think that it is important to start with the data, and have everyone working off the same playbook.

Chris – agree, but each of the RAs have different authors. I think that they should be laid out and reviewed and have someone look at them to identify where we need more information.

John – also with the update to the Biological Strategy that could change how we look at assessment units; smaller areas where we have very little data. Things will change in terms of the coverage of how we view the assessment units

MarySutton – the other piece is that the action agencies will be going through some level of prioritization, and if we can be proactive, it would be better than just responding to what they come up with.

Kristen – also important to look into the uplands and non-fish bearing streams to think about how those affect fish bearing stream habitat

Robes – is there a way to bring the Forest Service priorities more in line with folks from the MRC?

Mariah Mayfield – we are working on a model that is more of a whole watershed, it is how we're making our restoration calls and priorities

Discussion – coordinating with the Forest Service, getting a list of projects, need to stay engaged via the Forest Health Collaborative to ensure that aquatics are a priority

Pete Teigen – the next Collaborative meeting will be December 7th here in Twisp

Robes – you have to get in on the Forest Service's prioritization process early enough to have influence on the list

Mariah – we have a new Natural Resource manager and we're hiring a new fish biologist

Crystal – the opportunity is now to influence the list via the Collaborative

Discussion – time and money can also influence participation with the Forest Service; Collaborative helps with trying to get creative with the funding, find solutions, etc.

Pete – the strategic prioritization is for the whole forest, the map they are taking for the next five years and will consume most of their resources.

MarySutton – I have been handed off the Implementation Schedule, which has led to many questions. We are looking for ways to make it better, more useful. It started as a planning tool, became a reporting tool, and we're looking at ways to make it a better planning tool

Discussion – visual representation, GIS

MarySutton – Source Water Initiative, RFPs will probably come out next month, new funding source, mainly driven toward municipal water source improvement. I will send links and any additional information to Jessica to send out.

John Crandall – Outreach Update: we are having an outreach meeting here at 3 pm today; we are reconstituting the coordinating group we used to have. We are trying to align the work we are doing in schools with the new International Baccalaureate (IB) curriculum.

Roundtable

Robes Parrish – USFWS: reminder – our RFP is out for National Fish and Wildlife program, National Fish Passage program, and Partners for Fish and Wildlife. If you have project ideas please let me know. Kate is asking for them by Nov. 1st.

John Crandall – Methow Monitoring: bull trout spawning is just about wrapped up for the year. We are transitioning to using the redd survey protocols used for spring Chinook, ongoing quest to find the funding needed.

Goat Creek –good things are happening there, but no redds found this year. Numbers had been going down, and there may be something else going on with that local population. We had some spawning but not much. Still working on eDNA, just submitted a grant through the Western Native Trout Initiative (WNTI) for eDNA for bull trout; CCT, WDFW, FS have all contributed to that proposal

Rick Alford – Yakama Nation Coho Project: we are working with the FS and a private owner up in Early Winters to establish coho acclimation ponds, idea is to construct next summer. Part of the natural supplementation phase of the program. This phase is designed to take the fish progeny and release them into the upper tributaries. These are volitional release.

Currently we have five release points, new sites will be upper Methow, two in Twisp and two Chewuch. Then we will have nine sites.

Difficult to get sites that can handle the release sizes. Comes down to water availability, landowners, size, access, etc.

Discussion – site locations and selection, numbers

Rick – two site we are planning to implement next summer

Discussion – not many coho this year

Rick – we are at a 500k smolt release; we've had over ten years of smolt releases, broods are now from Methow fish

Crystal Elliot – Trout Unlimited: The Methow headwaters campaign has been very successful, a couple of weeks ago the FS committed to moving forward with a withdrawal, but they haven't done it yet. There is a link on the Methow Headwaters site to send the Forest Service a letter encouraging them to move forward; it needs to be done by the end of the month.

Still working on local abandoned mine cleanup and suction dredging issues.

Still moving forward on Barkley, and Johnson creek.

Nelle Scott – Trout Unlimited Klamath: it is great to travel outside of the basin you normally work in and hear how other places are working through issues. If you are ever in southern Oregon, you can come see how things work in the upper Klamath.

Mariah Mayfield – US Forest Service: the FS is redoing the headgate and irrigation structure with WDFW on Wolf Creek. We will schedule a field trip next week, so send Jenni Novak an email if you are interested. Bank restoration at Early Winters campground is happening next year. Mission is in progress, when approved will include a suite of actions.

Next project is in Tonasket, where we will work with Crystal on aquatics prioritization.

Kristen Kirkby – CCFEG: Reclamation is coming next week to survey for Burns Garrity, bathymetry. Silver is pretty much wrapped up. I am still working on education pieces with schools. WDFW will be electroshocking/surveying fish at Silver.

CCFEG this year hired a bunch of seasonal workers to do barrier assessments in the Wenatchee, wondering about assessments in the Methow

Discussion – there is an old WDFW survey, which probably needs to be updated. John did an assessment of projects that had been done to address barriers. A lot of known information that needs to be updated, and many unknowns.

Pete Teigen – UCSRB: we have the Forest Health Collaborative here on December 7th. The agenda isn't set, but it will be good if people can come. Will send the agenda out.

Jenni Novak – WDFW: Upper Wolf diversion work is happening, we dismantled everything behind the concrete headgate and the new headgate is installed. Ken, Robes and I are going to look at the spillway/fish return. We expect to wrap up this week or early next.

At the Maltais/WDFW diversion, we had an engineered design that was supposed to go to construction, but Frazer Creek is too messed up at this time.

Chris – we've contacted Okanogan Conservation District to gain funding for a test well at Maltais. They are doing the cultural now, we did a site visit, and we have funding from OCD and some other funding from some other sources. We will find out if it works after the pump test. We are also waiting for OCD to get the cultural approval, and the funding expires in June.

We are also working with OCD a little further downstream to put in an infiltration gallery that may allow us to avoid replacing dams and surface diversions.

Paul Wagner – Colville Tribes: no major changes since last time, eleven projects, Barkley moving forward with TU, Lawson fence and trough, and the Red Shirt Ditch production well. Six projects with MSRF, Gann wetland assessment, M2 trail loop and signage, Silver Reach instream structure feasibility, Aspen Meadows production well, beaver relocation program, and Maltais roughened channel on Frazer creek. Also in partnership with CCFEG on Silver and Burns Garrity.

We are bringing EDT to the Methow; trying to facilitate that and acquire data.

Chris Johnson – MSRF: MSRF/BPA/Reclamation are working on the Barkley Bear Habitat project that would follow up the irrigation project. We are working on alternatives selection, will be submitting a SEPA supplement to the M2 project.

Burns Garrity project is a good model for coordination between groups.

We are working with Colvilles on two large land acquisitions, one in the Upper Methow and one in the Chewuch with the Conservancy and CTCR.

~Adjourn

Next MRC Meeting November 15th



MRC Project Tour – Silver Side Channel, September 20, 2016

Definitions of Commonly used Acronyms	
AEM	Action Effectiveness Monitoring
ANS	Aquatic Nuisance Species
AREMP	Aquatic and Riparian Effectiveness Monitoring Program
BACI	Before, After, Control, Impact (study design type)
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
EDT	Ecosystem Diagnosis and Treatment
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
ISEMP	Integrated Status and Effectiveness Monitoring Project
ISRP	Independent Scientific Review Panel
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
MYAP	Multi-year Action Plan (also sometimes called the 3-year workplan)
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
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.