Methow Restoration Council
April 15, 2014

Participants:

Name	Organization/Affiliation
Chris Johnson	MSRF
Crystal Elliot-Perez	Trout Unlimited
Don Phillips	Local Citizen
Hans Smith	Yakama Nation
Heide Andersen	Methow Conservancy
Jenni Novak	WDFW
Jessica Goldberg	MSRF
John Crandall	MRC
Julie Grialou	Methow Conservancy
Kent Woodruff	Forest Service
Kristen Kirkby	Yakama Nation
Lee Bernheisel	Okanogan Wilderness League
Lucius Caldwell	Yakama Nation
Michelle Dewey	Dewey Consulting LLC
Robes Parrish (phone)	USFWS
Terri Williams	Okanogan Conservation District

Meeting Notes:

John Crandall—Monitoring Update: There is a new Action Effectiveness Monitoring program (AEM); it is BPA's effort to try to understand the effect of the actions they are funding on fish populations and habitat. It doesn't replace other programs. Projects that are funded through the Fish Accords and projects that are funded through the targeted solicitation are selected for potential sites. They are mostly interested in projects that are not yet completed. It is coming; some people are excited about this. What it will mean is that we will have more CHaMP-like monitoring site; mostly looking at habitat.
Chris Johnson—did they mention training our folks to use their protocol?
John—they didn't talk much about that yet. In the Methow, there are a suite of YN projects, MSRF's Twisp River Floodplain, and Silver Side Channel. Largely the project classes they are interested in are channel reconnection/levee setback projects. It will happen this year; they are trying to gather all the existing information about what has happened there. There may be work to help with that. Habitat survey with topo info; very meshed with CHaMP. There will be 8-10 sites in the Methow.

There are some changes to the Bureau's effectiveness monitoring program; their Research, Monitoring, and Evaluation (RME) program has shifted focus, and USGS will no longer be working on that program in the Methow; the USGS contract expired, and there is an effort to have other entities pick up the work, some through MSRF. It is a shift in momentum, but a lot of people want to see that work continue.
Chris—we have managed to work with Reclamation to fund continuity; Grace Watson will work for MSRF on that program; we will try to pick up five of the tasks that USGS was doing.
John—the fish tag arrays will also stay in place so that piece will help with the survival monitoring;
Chris—we've taken that on to continue with this; we will also up our game on monitoring projects that AEM is taking on and that USGS is no longer monitoring; we will be working on building a protocol for all of our projects
Lee Bernheisel—are you distinguishing between native and hatchery; is the emphasis is on native fish?

John—yes, all the recovery stuff is on native fish, but it is complicated. Not all juvenile steelhead are clipped, but all hatchery Chinook are clipped; the steelhead stay around for a couple of years. WDFW does scale samples, primarily at the trap, to study relative reproductive success. Take the fin clip to analyze DNA of young fish to be able to tell if the parents were wild fish. The literature shows that progeny of the wild fish are more fit than the hatchery fish.
Discussion—hatchery vs. wild, fitness, being able to tell if the progeny are wild or hatchery derived an important piece of information. WDFW is marking fish as part of their study. We are not very close on genetic recovery of species.

John—the Bureau is still working through the RME program to develop a productivity model, trying to get habitat and water quality information. The "data harvester" is developed at the University of Idaho. They are still working on it, could be really cool down the line, could give us the ability to store our data in one place and then people can query the database and upload the information into the model.

John Crandall—Outreach Update: Watershed Watchers is up and running; we've done a couple of programs at the elementary school, and the 3rd graders are doing a unit on floods. The field days will be at the end of May, and if you would like to help let John know.

Chris—the YN uses pond five at the Twisp ponds discovery center for coho acclimation; we currently have around 70,000 coho, and the YN have built a float for cover/predator relief. If we are able to get some kids who want to build more floats, the people at Home Depot will donate the pvc pipe for the kids to build the floats. At the Twisp site, we have some of the highest numbers of returning fish to that site.
John—other outreach items:
We are developing a watershed display for the interpretive center; it will be a permanent installation there. Jennifer Molesworth and I have been working on ideas for it, and they want it pretty soon. It is a living installation—we expect to tweak it over time, and we imagine having it interactive for kids eventually.

June 14th is National Fishing and Boating day at the Winthrop Hatchery. Itwill be similar program to what we had in the past.

June 7th is an art opening at the Confluence gallery, theme is "Our River"; also an art walk day. There will be a barbeque at the RiverBank, maybe a fish parade.

Chris—last year we put up the first of 8-10 kiosks to let the public know about restoration; there will be a sign at the WDFW property where we did the big M2 project last year, and also at Witte Road near the Whitefish Island site. We are doing cultural for signs at the Winthrop Barn and Susie Stephens bridge
John—may consider putting some in the lower Methow—the put-ins downstream get a lot of use.

Chris—spring newsletter: a newsletter to let people know about what we are doing, try to time it to before high water. We plan to get it out in the next few weeks, so if people want to have something to include, let Jessica know. A good opportunity to show how the groups work together. The MRC web page is tied to the MRC calendar, and it changes monthly.

Crystal Elliot-Perez: Local Abandoned Mine Challenges: Spotlight on the Red Shirt Mill [PowerPoint]
With the Silver RA started this spring, it is a good time to talk about a contaminated site within the reach
Abandoned mines in Context

- Legacy of abandoned mine sites
- EPA estimates that 40% of headwaters nationwide are impacted by contamination by abandoned mines

Mining in the Methow—a boom in 1880s and 1890s, primarily gold and silver; both placer and hard rock mining. The town of Silver was established five miles south of Twisp, and Twisp was originally a supply post for mines up the Twisp River; Marcy Stamper put together a history of mining in the Methow that is a good reference.

DNR has documented over 50 abandoned mine sites in the Methow watershed, some pose a threat to native fish; not all of the sites impact water bodies, but the ones that do are of significant concern to groups like TU.

Mines use water to process the material; if there wasn't water at the mine, they moved the ore to a mill site to process it. At the mill site, they would have the mill building, often on a hillside to use gravity in the process, use water to grind the material finely; they used cyanide to extract the gold; in many cases the mill sites are more of a threat than the mine sites. The tailings often contain copper and zinc, and form a sludge of sulfuric acid and dissolved metals; you can get acid rock draining and direct contamination from the tailings

Direct heavy metal effects—acute toxicity and chronic toxicity in fish, can disrupt the olefactory systems that make the fish confused, it is known that copper and zinc can cause these problems, can cause problems with predator avoidance and prey avoidance, as well as problems with growth and survival. Zinc accumulates in the food chain, impacting invertebrates and prey species.

Also get stream acidification effects, which affects fish, invertebrate communities, prey species, etc.

Red Shirt Mill site—located just west of the Twisp Airport, RM 39.5, within the left bank floodplain of the river. The mill operated in the 1930s and 1940s, a lot of the material probably came from the Alder mine.

Chris—has there been any sampling downstream?

Crystal—not that I know of

Chris—we own property downstream if you would like access; we would be very interested in knowing before we do restoration

Crystal—I just submitted a grant to Trib for an assessment. The mill site is over two acres in size, when the impoundment would fill up they sluiced it into the river. Approximately 20-30,000 cy of tailings are on site today. In some areas the tailings are exposed, in some places they are covered by alluvium. The main issue is runoff and sloughing.

They estimated that about 5.2 cy of tailings are mobilized each year, and as the bank erodes, we are getting into deeper tailings. The site is in a historic overflow channel. Ecology has been studying the site since the early 2000s. The mill site received a hazard ranking of 1; they removed the mill building in 2002. Full removal of tailings at the site would be about 5million, but they didn't have that money, so they did an interim action in 2003, but it was unsuccessful.

Challenges to site remediation:

- Funding gap—no federally appropriated funding source for abandoned mine cleanup in the US—cost is for hauling and disposing of the tailings
- Site ownership—Ecology TCP funding is only available to local governments, and the site is privately owned (miners long gone—no LP identified by Ecology); no one from the mine that Ecology can go after for the cleanup
- Determining best alternative in the context of the species recovery and economic reality (full removal + remediation = ~$5 million);

The question is how to tackle the problem in a way that is best for fish. I would like to brainstorm this with MRC. Ecology will provide the funding if we can show that the site can be repurposed; the

landowners approached me. We have a field trip to the site after the meeting, and can answer more questions if people have them.

Roundtable & Public Comment

John Crandall—Methow Monitoring Coordinator: Heide Andersen and I have been working on the cage-a-tree program. We are looking at ways to assess the project and go in and remove cages; we will be doing that this spring.
I am well into the draft of the Lamprey guide, and hope to have it ready this fall.

Crystal Elliot-Perez—TU: recently submitted a proposal to Trib Committee to look at a study that would be a supplement to the Silver RA, would look at areas in the reach that are impacted by abandoned mines.
Also, TU will be doing a farm to table benefit dinner this summer at Beaver Creek at pipestone canyon ranch in August.

Kent Woodruff—USFS: we've been fairly successful in the Beaver Project to transition from MC stewardship to MSRF stewardship, MC will be involved for two more years. We have been pretty successful in grant funding, just heard that we have NFF funding, Seattle City Light, and Ecotrust, we hope to have a hiring announcement in the next couple of days through the WDFW for the crew. If you know people who would be interested, you can contact kent.

Heide Andersen—Methow Conservancy: Hans has a project on the Conrad property easement, a cottonwood restoration project that is well underway. We will be doing another riparian project upstream on the Lehman property with Rob and Robes, and we also have the M2 3R project with MSRF and the Bureau this fall.
Chris—we had a site visit to 3R yesterday with WDFW, and we are ready to move to the 90% design. Also talked about Thompson Creek and looking at keeping options open for restoring a confluence.

Jenni Novak—WDFW: we got approved for additional 2 years of funding for my program; Goat Creek will be happening in October after irrigation shutoff, quite a few projects are in development.

Hans Smith—Yakama Nation: Habitat restoration projects—two on the Twisp River, going to bid shortly on wood enhancements in the lower Twisp. We have two projects on the Methow; one at the Two Channels WDFW site and the other at the 1890 side channel, scheduled for August. We are continuing to work with WDFW on Fender Mill, Big Valley, and the Chewuch Campground areas on RM 10 for 2015. Just got bids for the Upper Methow RA, from Trout Creek to Weeman; it probably won't be finished until next spring. I have reviewed draft Middle Twisp RA, and I expect to have a draft to share with MRC soon—it is going pretty well, and i hope to have the final by the end of May. We are still working on the restoration signage—we found that the cultural resource clearance for the signs is taking some time.

Julie Grialou—Methow Conservancy: SRFB sent out an email on the potential policy change on riparian buffer widths, do people want to comment?
John—this comes from EPA; Ecology has it in the Centennial grants. They do have constraints and exceptions in the RCO guidelines, which are reasonable. We won't be able to change the EPA guidelines
Chris—MSRF will be commenting; I find it a step in the right direction because the exceptions were better laid out. I do want to document that we want to make sure that the arbitrary standards are flexible
Discussion—MC, MSRF, and possibly OCD will comment on the guidelines

Lee Bernheisel—OWL: a question, are groups looking at doing work on public lands beyond WDFW?
Chris—we are working on a MOU with WDFW, DNR is challenging because they don't have a full determination of what they own, DOT is very difficult, although we did have success at the Whitefish Island Site; unfortunately, we still find that private landowners are often easier to work with than public landowners.

Lucius Caldwell—Yakama Nation: working with YN as a biologist, new to the valley and to the project; working on Hancock Springs, focusing on monitoring the effects of past actions; working with John Jorgensen

Chris Johnson—MSRF: we acquired the property upstream of the Sugar Levee, and we will be completing a Boundary Line Adjustment to fix the messed up legals in the area. That property is the start of the 1890s side channel.
We are in the final stretch of the effort to get the 3R project on the ground in the middle Methow—it is an alcove and wood enhancement project. For the previous M2 project sites, we are in the adaptive management phase; internally MSRF will be doing additional monitoring of the fish component at both sites.
At Twisp River, we are moving forward with the Twisp Floodplain site in the area of the MVID West diversion, where we are planning to repurpose what is left behind and restore the floodplain. We are currently completing alternatives review, data collection, and looking at the constraints.
We are also looking at some of the other aspects of our increasing inventory of land, and we may be doing some small timber planning and management, trying to get off of only looking at the river and also looking at the hillslopes. We want to be good land managers.
We will have another art installation at the Twisp Ponds site this summer; Steve Love's sculpture will be installed.
Beaver Creek—we have re-upped our landowner agreements on the ag lands we purchased, which are all still in ag use. The Batie ditch was rehabbed last year; we tested it this spring and it worked. We will be monitoring that to make sure that it meets expectations. We have a USGS monitoring site on lower Beaver Creek and we will be meeting with the landowner to talk about moving the site and renewing landowner agreement. We will be restoring the Fort-Thurlow diversion again; we have a roughened channel chute pool system designed by Bureau. We will also be rebuilding the Marracci diversion as well. We also have an emerging opportunity where Beaver Creek enters the Methow and where it used to enter the Methow, looking at acquisition and restoration opportunities.
Lee—do you have plans for the Buckley diversion at MVID?
Chris—it has to be part of our plan. We are in an interesting situation there.
John—also on Beaver Creek, Ecology will be installing two telemetry stream gages, one at Hwy 153 and one above all of the irrigation diversions, so we will be able to track flow in and flow out. We will be able to look at water use and availability and fish use.
Chris—at Beaver Creek, we are monitoring where the wood goes from our channel relocation project
Robes Parrish—we have three cameras out there at the project site that will give us an image every 10 minutes so you can watch any wood movement and the evolution of the channel.
Chris—the monitoring will help us respond to changes if needed.
Robes—think the changes that we will see will be localized, so far everything looks good.

Robes Parrish—USFWS: we have a lot of ongoing monitoring at the Silver site and hoping to have a 60% design for potential restoration actions by this summer, and will share when we get it in. Expect that it

will probably be similar to what we did at Hancock Springs; WDFW is still optimistic that they will be able to make an offer for easement to the landowner by the end of the month.
As a follow up to my snow pack and hydro presentation in January, we are now at or slightly above normal, overall things look good, but it may be melting a bit early. There is also a better than 50% chance of going to el Niño conditions this summer.

Next MRC Meeting May 20th

Definitions of Commonly used Acronyms	
ANS	Aquatic Nuisance Species
AREMP	Aquatic and Riparian Effectiveness Monitoring Program
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
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
OBMEP	Okanogan Basin Monitoring and Evaluation Program
OWL	Okanogan Wilderness League
PCSRF	Pacific Coastal Salmon Recovery Fund (pronounced "Pacsurf")
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. This 7-year status report gives our funding sources, partners, and the public an overview of past activities, current business practices, products and publications, and future program directions. It is designed to increase accountability and summarize our accomplishments during the initial phase of the program.