

**Final Water Resources Technical Advisory Committee Meeting Minutes**  
**September 13, 2016**  
**Noxon Emergency Services Building**  
**10:00 a.m. (MST)**

**Attendees**

WRTAC Representatives

Avista – Eric Oldenburg

Cabinet Resource Group – Jim Nash

Green Mountain Conservation District (GMCD) – Howard Bakke (departed at 12:15 p.m.)

Idaho Department of Fish and Game (IDFG) – Ken Bouwens

Montana Fish, Wildlife and Parks (MFWP) – Ryan Kreiner

Montana Department of Environmental Quality – Randy Apfelbeck

Montana Department of Natural Resources and Conservation (MDNRC) – Ada Montague  
(arrived at 11:30)

Noxon-Cabinet Shoreline Coalition (NCSC) – Al Stohle (alternate)

U.S. Forest Service (USFS), Cabinet Ranger District – Doug Grupenhoff

Other

Avista – Nate Hall, Lisa Vollertsen, Paul Kusnierz, Shana Bernall, and Sean Moran; Avista Grant Writer – Ruth Watkins and Susan Drumheller; Cabinet Resource Group – Cesar Hernandez; Lower Clark Fork Watershed Group (LCFWG) – Brita Olson; Montana Fish, Wildlife and Parks – Jason Blakney and Mark Deleray (departed at 2:45 p.m.)

**Welcome**

Eric Oldenburg welcomed those in attendance and invited participants to introduce themselves. A meeting announcement was distributed prior to the meeting and three consent mails were listed on the announcement. The goal of this meeting was to review the ongoing 2016 Annual Implementation Plan (AIP) projects and identify any issues that needed to be addressed at the upcoming September Management Committee (MC) meeting. Attendees were encouraged to provide project proposals to program leaders as early as possible, in an effort to provide program leaders sufficient time to review and assist with development of project proposals. Oldenburg explained that Avista is implementing a new process for tracking work products to ensure reporting deadlines are being met.

**Agenda**

After discussion of the AIPs Jim Nash requested time to discuss the Hecla Mine and Ruth Watkins will provide a grant writer update.

**FERC Annual Report**

Avista's FERC Annual Report format was discussed at the March MC meeting and informal discussions with FERC occurred to make the document more user friendly and focus on compliance. Oldenburg provided the group with a brief overview of the revised working template, which will be discussed at the September MC meeting. Jason Blakney asked if the new format would be used for the 2016 Annual Report. Nate Hall was unsure, it will likely be a hybrid between the old and new formats. Cesar Hernandez asked if the report is available on

Avista's website. Hall replied the most recent annual report and AIPs are available on Avista's Clark Fork project website and technical reports can be obtained by contacting the Avista program leader or Oldenburg.

### **Appendix A: Idaho Tributary Habitat Acquisition and Fishery Enhancement Program**

Ken Bouwens discussed projects under this Appendix.

#### **Habitat Annual Operations:**

Habitat Restoration and Monitoring Fund: Continued to monitor and maintain previously funded restoration projects as needed. Large rocks were placed to prohibit motorized vehicle use on Sullivan Springs Kokanee spawning grounds.

Continuation of Acquired Properties: Continued to pursue opportunities cooperatively with Kaniksu Land Trust and others for protection of Lake Pend Oreille (LPO) high priority Bull Trout habitat in Trestle, Johnson, Granite, North and South Gold, and Grouse creeks and the Pack River through purchase or easement actions.

Nate Hall explained that for the Avista-owned property on Trestle Creek (375 acres) a subgroup continues to work on developing a timber treatment plan. Timber harvest in the Trestle Creek drainage is challenging, and the goal is to work on a plan in the fall with a work product to the WRTAC by the end of the year.

In 2015, Japanese knotweed identified in the Trestle Creek drainage and Lakeland Restoration Services was hired in 2016 to inventory and treat any knotweed found in the drainage. Herbicide treatment will occur this fall when the plants are most susceptible.

Bouwens explained that the Natural Resources and Conservation Service and USFS started the Lower Lightning Creek Working Group. The goals of the group are to prevent Federal Emergency Management Agency led removal of large wood within the system and to develop plans for future restoration projects in the lower portion of Lightning Creek.

In August, the MC approved a consent mail for the Twin Creek acquisition. Hall continues to work with Kaniksu Land Trust (KLT) and the landowner on details (conservation easement on 150 foot corridor and land across the county road) and the acquisition is ongoing. Hall anticipates completing the acquisition this fall.

Continue to pursue opportunities cooperatively with Kaniksu Land Trust and others: Bouwens and KLT visited several parcels this summer and will continue to investigate other opportunities. Bouwens and KLT created a map of potential parcels around LPO and key tributaries.

Twin Creek: Contractor started construction last week, this project was slightly delayed due to contractor availability. The original project proposal was to backfill with rock dredged from underneath the bridge; however, the dredged material was too sandy. Additional rock was purchased. Planting will occur in spring 2017.

Lightning Creek Large Wood Salvage: This project involved salvaging usable trees from nine acres of blow down, and storage for use on future restoration projects. This project did not move forward due to lack of approval by the USFS (not consistent with road less designation of this area).

Grouse Creek: This project was a continuation from 2011, and was a cooperative effort between U.S. Fish and Wildlife Service (USFWS), USFS, Avista, and adjacent landowners. The project was completed last week and included installing additional large woody debris complexes to upper Grouse Creek.

Pack River Temperature Monitoring: Temperature loggers were installed earlier this year and the Pack River Watershed Council maintains the loggers. Temperature loggers will be retrieved in the fall during low flows.

Spring and Mosquito Creeks Pathogen Survey: This was a carryover cost-share project between appendices A and C. The purpose of the project was to quantify the risk of spreading infectious pancreatic necrosis (IPN) and/or other viral pathogens from Spring and Mosquito creek fish populations to fish populations in the lower Clark Fork River. Data were collected in 2015 and analysis is underway. Preliminary results indicate the majority of Brook Trout and one Brown Trout that were sampled from Spring and Mosquito creeks tested positive for IPN.

#### **Fishery Management:**

Research and Monitoring Work: Stream surveys were completed and fish abundance was similar to previous years.

#### **Potential project proposals, in various stages of development, for 2017 AIPs:**

- upper Pack River – USFWS
- Strong Creek
- Rattle Creek – USFS
- Westslope Cutthroat Trout – Panhandle Chapter Trout Unlimited

Oldenburg added, if you are interested in submitting a project proposal, contact the appropriate Project Leader. Next year the project proposal due date will be from November 2-15 to ensure Project Leaders have enough time to review and request additional information, if needed.

#### **Appendix B: Montana Tributary Habitat Acquisition and Recreational Fishery Enhancement Program**

Blakney provided a PowerPoint presentation and discussed tasks implemented under Appendix B.

#### **Habitat Annual Operations:**

Habitat Restoration Monitoring and Maintenance Fund: This fund is used for maintenance of properties, taxes, etc.

Monitor Habitat Restoration and Native Salmonid Abundance: Efforts were focused on revisiting long-term monitoring sites on the South Fork Bull River, Crow Creek, and upper Prospect Creek.

In 2016, in coordination with LCFWG and Montana Conservation Corps crews, restoration project maintenance included fence repair, planting, downsizing enclosures, and removing enclosures on Crow Creek, Bull River, and Graves Creek. In the future additional funds need to be included in the budget for monitoring and maintenance of restoration projects.

Electrofishing was conducted on 15 sites in the Vermilion River, South Fork Bull River, Cooper Gulch, and Crow Creek.

Montana Key Streams Outreach: Continued to contact landowners in each targeted tributary and provide information regarding Avista, KLT, and MFWP interests in acquiring fee title or conservation easements on stream habitat in their watershed. Bull River property acquisition is pending private landowner litigation.

Rock/Graves Stream Flow Gages: In 2011, stream flow gages were installed in Rock and Graves creeks. New pressure sensors were purchased and will be installed this fall.

Cabinet Ranger District Automated Snow Recording Site O&M: This station provides real-time data for snow levels, precipitation, air temperature, humidity, solar radiation, and wind. The information is available for public access online through the National Oceanic and Atmospheric Administration website.

Lower Clark Fork Watershed Coordination Agreement: This agreement is used to fund LCFWG administrative costs associated with habitat project implementation. Two projects on the Bull River and USFS lands were implemented.

Miner's Gulch Restoration: Doug Grupenhoff provided an overview of this multi-year project, located one mile downstream of the Chapel Slide restoration reach. Miner's Gulch was identified in the Vermilion River Watershed Assessment as the next major source of sediment. This project was a cost-share (Appendix B, USFS, grants, and MFWP). Implementation was a massive undertaking and involved coordination from multiple agencies (USFS, MFWP, Avista, and others). Phase I included removing 6,000 cubic yards of material from the channel within the floodplain and terraces to create large pools. Blakney added electrofishing was conducted at two sites above and below the project site with good densities of adult and juvenile Bull Trout.

This winter Brita Olson will edit video footage of the project. An annual monitoring report will be produced by USFS. In 2017, revegetation of the site will occur. After a bank-full event the site will be surveyed and using adaptive management future downstream projects may be proposed and implemented.

Dry Creek: This carryover project involves removing four culverts, re-contouring portions of the road prism, and revegetation of disturbed areas. The public scoping process was initiated in 2014 and the National Environmental Policy Act (NEPA) process resulted in several comments from the local snowmobiling community. The USFS is in the process of providing justification for an alternate route in order to provide recreational access. A decision will be made in April or May of 2017 and the project is anticipated to be implemented in the summer of 2017.

Crow Creek Bull Trout Investigation: This is a two-year project involving electrofishing surveys, habitat assessments, spawning-incubation conditions, and redd surveys in Crow Creek and associated tributaries.

**Recreational Fisheries:**

Noxon and Cabinet Gorge reservoirs and Bull River Creel Survey: Field work was completed in 2015. Noxon Reservoir results from angler survey data for species specific (Yellow Perch, bass, Walleye, and Northern Pike) include catch estimates, demographic information, and harvest rate. Shana Bernall asked if the results were compared to mail-in surveys. Blakney replied mail-in surveys provide different estimates and were not included for comparison. Mark Deleray explained that a mail-in creel survey is conducted every two years to estimate angling pressure.

Ryan Kreiner provided an update on the three Walleye studies.

Noxon Reservoir Fisheries Status Predictive Model: The purpose of this project was to develop a science-based predictive model to estimate the status of each resident fish species in the Noxon Reservoir over the next 20 years under two management scenarios. In 2014, a researcher from the University of Idaho was selected to develop the model. The revised model was finalized earlier this year. Based upon historic data, a logistic model, and physical characteristics of Noxon Reservoir, the Walleye population would likely not dominate the current fish community. Noxon Reservoir aquatic vegetation may provide a buffer and safe refuge for small young age class fish from predators. There seems to be a balanced relationship between predator and prey at this time, when compared to the 1990's.

Update of Walleye Expansion in Montana Environmental Assessment: This is a carryover project. In 2014, a researcher was hired from Montana State University to update the original Environmental Assessment, including updating four case histories for Walleye introduction into western waters and the effects on existing fish communities, as well as information on Canyon Ferry Reservoir following the illegal introduction of Walleye. This information will assist with future Walleye management decisions on the lower Clark Fork River. The contractor is working with MFWP to complete a revised draft report. There has been no significant change since the original case histories. Limiting factors were identified for Walleye population expansion including reservoir retention time, forage availability, and water level fluctuations.

Walleye Economic Study: This is a carryover project from 2014; the purpose is to analyze impacts of a proposed investigation of Walleye suppression in Noxon Reservoir on the local economy. A researcher was hired from the University of Montana to build a bio-economic model that relates current and historical fish populations in Noxon Reservoir to angling pressure and incorporates MFWP data and concurrent Walleye studies to predict the future economic situation. A draft report is anticipated in October. Watkins and Sue Drumheller will follow-up with Kreiner on data from the Walleye Economic Study Report.

Cabinet Gorge and Noxon Reservoir Fisheries Monitoring: Reservoir monitoring is an annual effort including: summer beach seining, fall gill netting series, bass tournaments (seven proposed for Noxon Reservoir) monitoring, and Walleye monitoring. Ryan Kreiner noted that the take home message from spring Walleye electrofishing surveys was that sampling on consecutive

nights reduces catch rates, increasing effort does not seem likely to increase catch rates, and spring sampling is biased towards male Walleye. Annually anglers are handling thousands of Walleye. Fall gill netting indicates an upward trend in the abundance of the top three predators (Northern Pike, Smallmouth Bass, and Walleye). Densities of native minnows and suckers appear to be declining, while Yellow Perch and Pumpkinseed fluctuate.

Bouwens asked at this point is it reasonable to expect the Walleye population to reach an equilibrium. Blakney replied Walleye were introduced into Canyon Ferry at the same time as Noxon Reservoir. Walleye population exploded in Canyon Ferry, while Walleye population is fluctuating in Noxon Reservoir. A potential limiting factor that is not identified in the literature is the low retention time for Walleye eggs and fry in Noxon Reservoir.

Delaray stated MFWP's current management direction for Walleye in Noxon Reservoir is to continue to give anglers the opportunity for unlimited daily harvest. There are a variety of management tools to capture and control the Walleye population, if needed.

Cabinet Gorge Bathymetric Map: The map was finalized and printed in April. Copies of the map are available on the back table.

Mountain Lakes Fisheries Monitoring: This is a four-year survey of high-mountain lake fish populations in top priority drainages. In 2016, surveys were conducted in Fishtrap, Moran Basin, and Rock Lake. St. Paul Lake sampling will occur in October. Thompson Falls State Park and Frog ponds will be sampled as well.

Aquatic Invasive Plants on Noxon and Cabinet Gorge Reservoirs: Hall provided a PowerPoint presentation and background information for this project. Both CFSA and grant funding was provided to Sanders County Aquatic Invasive Plants Task Force (Task Force) to assist with controlling Eurasian watermilfoil (EWM) in Noxon and Cabinet Gorge reservoirs. The overall goal of the project is to control the spread of EWM through a multi-pronged management approach with the use of herbicides, bottom barriers, boat check stations, and educational public outreach. This project is a cost-share between appendices B, G, and H, MDNRC, NCSC, and in-kind support from Sanders County Task Force, and Montana State University.

There were unique challenges starting in 2015 in controlling EWM, when environmental conditions (i.e., low flows and high water temperature) were ideal for rapid, early growth of all aquatic plant species, including EWM. Due to these conditions, areas of EWM that were previously reduced to maintenance levels in Noxon Reservoir saw significant re-growth. Therefore, focus shifted and the planned approach of starting aggressive treatment on Cabinet Gorge Reservoir and was redirected to treatments on Noxon Reservoir to avoid losing the progress that had been made over the past six years. Dr. Getsinger (U.S. Army Corps of Engineers) provides technical guidance to the Task Force on herbicide applications. The Task Force is in the process of developing a long-term maintenance control plan.

Last year hybridized (native and non-native) water milfoil plants were discovered in Noxon Reservoir. Hybridized EWM plants are more resistant to herbicides and have a fast reproductive

rate. The Task Force is working with Dr. Ryan Thum, geneticist from MSU, to research the hybrid plants and effectiveness of herbicides.

Post-treatment monitoring is scheduled for October 5. If you are interested in attending contact Paul Kusnierz, Nate Hall, or Ruth Watkins. Blakney asked how the results looked after last year's herbicide treatment (52 week survey). Hall replied the 52 week post-treatment survey was completed earlier this month and results are pending. Deleray questioned how long will the hybrid research be conducted. Hall responded that it will continue at least into 2017 to determine the efficacy of herbicide treatments that occurred in 2016.

Hall explained the cost for herbicide treatment is approximately \$1,000 per acre. In 2016, pre-treatment surveys of Noxon Reservoir were completed and a public meeting was held in July. In 2016, they treated 199 acres in Noxon Reservoir. The herbicide treatment is effective at targeting EWM and does not appear to impact native vegetation. The ultimate goal of the herbicide treatment is to reduce EWM to a point where only periodic maintenance treatments will be needed.

Hernandez asked if harvesting would be more effective. Hall replied EWM harvest is utilized in closed water systems. Noxon and Cabinet Gorge reservoirs are open water systems and EWM fragments could escape downstream, harvesting does not kill EWM, but instead creates a monoculture. Deleray asked where boat bottom barriers are installed. Hall replied boat bottom barriers are installed in partnership with NCSC at private use docks. Boat barriers have high maintenance costs associated, as they need to be removed annually, and are also installed at some of the public recreation sites. Deleray asked if LPO has hybrid EWM plants. Watkins replied that LPO has hybrid EWM plants. The Task Force coordinates with Tom Wolfe (Idaho Department of Agriculture). Bouwens added one benefit LPO has is the long winter drawdowns. Hall explained the challenges associated with drawdowns on the reservoirs and requires specific weather conditions for a prolonged period of time.

Oldenburg requested an update on the Field Station Review. Blakney is unaware of any progress on this project.

Potential project proposals, in various stages of development, for 2017 AIPs:

- Graves Creek habitat enhancement – USFS, Avista, and MFWP
- Crow Creek – Continuation from 2016
- Revive the Noxon Reservoir Bathymetric Map
- Elk Creek Road – USFS
- EF Blue Creek
- Vermilion River survey and design – USFS

### **Appendix C: Fish Passage/Native Salmonid Restoration Plan**

Bernall provided a demonstration of the Avista Reports DVD-based database. Contact Bernall if you would like a copy of the database.

Upstream Fish Passage Program: Avista continued to collect adult Bull Trout below Cabinet Gorge Dam and send genetic samples to Abernathy Lab for analysis. To date, 22 adult BLT

have been captured and transported to Montana. Bernall provided a presentation and reviewed the second year of the Westslope Cutthroat Trout experimental transport program. Pathogen samples will be collected in the fall from Bull Trout, Kokanee and Lake Trout and will be analyzed prior to applying for a MFWP import permit for 2017. Bernall continues to work with MFWP and IDFG on an ArcGIS-based database to store information on genetic purity of Westslope Cutthroat Trout populations in the lower Clark Fork River. In addition, the PIT tag database was revised this year to make it more user friendly.

Fish Capturing Facilities Operations, Development and Testing: Continued moving forward with ancillary components of the Cabinet Gorge Hydroelectric Dam (HED) Permanent Fishway project. The MC held a special meeting on August 16 to discuss the Clark Fork Settlement Agreement (CFSA) amendment and scheduled a follow-up meeting for September 23. Deleray asked if comments were received from the Confederated Salish and Kootenai tribes and USFS. Bernall replied no formal comments were received.

In 2015, Avista solicited proposals to construct the Cabinet Gorge HED Permanent Fishway. All bids were significantly higher than the planned project budget, with the cofferdam driving the cost of the project. Avista rejected all of the bids and developed a Value Engineering contract with one of the bidding firms to evaluate risks and costs. A Value Engineering Assessment of the original design was initiated to evaluate the project cost (cofferdam, rock excavation, dewatering, and potential flood risk during spill season). Two alternative design concepts (Two Chamber Trap and Forebay Water Source) were selected and presented to the Design Review Team (subgroup of the MC) in July.

Once the CFSA amendment is approved by the MC, Avista will award the contract for construction. Avista continues to refine documentation for the FERC license amendment application and draft NEPA analysis for the project. These documents (Biological Evaluation and Assessment) will facilitate Endangered Species Act (ESA) Section 7 consultation with the USFWS leading to an issuance of a Biological Opinion and allowing the completion of construction permitting.

Tributary Trapping and Downstream Juvenile Bull Trout Transport Studies: Oldenburg provided a PowerPoint presentation on activities for this program. In 2016, revised tributary trapping protocols and refined capture methods and transportation guidelines were approved by the MC by consent mail. These refined methods and guidelines are focused towards increasing capture efficiency of juvenile Bull Trout and return rates of adult Bull Trout. To date, 52 juvenile Bull Trout have been transported downstream of Cabinet Gorge Dam.

Graves Creek permanent weir trap modifications appear to be effective at retaining Bull Trout and will continue to be evaluated. The Monitoring and Evaluation Plan will be reviewed by the Aquatic Implementation Team this fall to evaluate the operation and fish capture effectiveness of the Graves Creek permanent weir trap.

Passive integrated transmitter (PIT) tag arrays were installed and operated in upper Prospect Creek, Cooper Gulch, and Trout Creek. This study was recently completed and found Bull Trout populations to almost exclusively express stream resident life histories.



Continued sampling efforts for bedload movement monitoring in the East Fork Bull River; however, due to unusually low spring runoff, bank-full flows were not reached and this sampling will continue in 2017.

Non-Native Fish Suppression East Fork Bull River: Sean Moran explained the purpose of this project is to restrict non-native salmonid access, perform abundance monitoring, and collect a sub-sample of eggs from positively identified Brown Trout redds. This year monitoring data shows an increase in Brown Trout abundance, while juvenile Bull Trout abundance appears to be below the long-term average.

Fish Abundance Monitoring: Fish abundance monitoring was conducted, in coordination with Appendix B, in the Graves Creek drainage with less intensive sampling in Pilgrim and Deadhorse creek drainages. Redd surveys are scheduled to begin in October. Hernandez asked for Rock Creek redd survey results for 2015. Moran replied that typically one to five redds are found. Rock Creek is a challenging tributary to conduct redd surveys (minimal gravel availability, algae die-off, size of redds).

#### **Appendix D: Bull Trout Protection and Public Education Project**

Moran provided background information. This program is a collaborative effort between IDFG, MFWP, and Panhandle Chapter Trout Unlimited.

IDFG focused efforts on providing fish identification and proper release techniques to anglers participating in the LPO Angler Incentive Program, the WaterLife Discovery Center project, and other educational activities within the local community. MFWP continued the “hooked-on-fishing not on drugs” program in the public schools, and the Bull Trout trailer was located at the Sanders County Fair and the Huckleberry Festival.

Enforcement staff continue to pay particular attention to Bull Trout spawning streams and field crews maintain communication with enforcement staff as to any suspicious activities.

Panhandle Chapter Trout Unlimited continued to ensure an adequate supply of Bull Trout materials and participated in events including the Panida Theater Fly Fishing Film Festival, Trout and About Festival, as well as a new fundraising effort to support “Casting for Recovery”.

Bouwens noted that the fish identification cards show Bull Trout in non-spawning colors, while Brook Trout are illustrated with spawning colors which has led to several incidences of misidentification. He suggested the fish identification cards have both spawning and non-spawning colors. Watkins added that there are grants available for education and enforcement efforts (i.e., cameras), as implementers come up with project proposals contact Watkins and Drumheller to discuss funding opportunities. Moran will follow-up with the Appendix D implementers at the October coordination meeting for revisions to the fish identification card illustrations and grant writer availability. Moran will send the Appendix D meeting information to Drumheller.

### **Appendix E: Watershed Council Program**

Continued to coordinate with Green Mountain Conservation District and Bonner Soil and Water Conservation District to assist with program implementation and support administrative efforts for existing watershed councils in Montana and Idaho.

### **Appendix F1: Lower Clark Fork River Water Quality Monitoring Program**

Kusnierz explained that the Clark Fork Coalition, Avista, Montana DEQ, Idaho DEQ, University of Montana, and City of Missoula held their annual kickoff meeting in May to review the 2016 water quality sampling program. The Clark Fork Coalition is the lead for coordination of the subgroup, posting of final data, and reporting this information on their website. Avista continues to collect water quality samples at the three designated locations on the lower Clark Fork River (March – November).

### **Appendix F2: Monitoring of Noxon Reservoir Stratification and Mobilization of Sediment Nutrients/Metals**

Avista continues to monitor river flows which steadily decrease until about mid-August. The water column monitoring “trigger” is outflow from Noxon that is less than 8,000 cfs for at least 4 out of 7 consecutive days between July 1 and September 30. The trigger criteria was reached on August 4 and flows have continued below 8,000 cfs for 33 days. A proposal may be included in the 2017 AIP for collecting the third and final sample pending discussion with the WRTAC.

### **Appendix F3: Aquatic Organism Tissue Analysis**

There were no proposed activities for 2016 in conjunction with this PM&E. Projects under this program are dependent on IDFG and MFWP activities. Due to several industrial sites upstream of Noxon Reservoir which are probable sources of dioxins, furans and PCBs previously found in fish in the lower Clark Fork River, a fish tissue study was implemented in 2014 and 2015. A final report for the Noxon and Cabinet Gorge reservoirs mercury concentration study is anticipated in the fall.

### **Appendix F5: Dissolved Gas Supersaturation Control, Mitigation, and Monitoring**

There are four basic components to this PM&E: 1) project operations, 2) total dissolved gas (TDG) monitoring, 3) TDG alternative mitigation and monitoring program, and 4) Gas Supersaturation Control Plan (GSCP) alternative.

Operations: In 2016, continued to follow the spill gate procedures as defined in the GSCP. For Cabinet Gorge Dam this now includes the operation of the ice and trash gates, and was amended to include operation of the modified spillway #2 during spill. Spillway operations were amended in 2016 to include use of spillways #4 and #5 during spill.

TDG Monitoring: All of the monitoring equipment was sent back to the manufacturer for annual calibration and maintenance. Seasonal TDG monitoring equipment was deployed on March 17 at three locations. Kusnierz provided a PowerPoint presentation to illustrate 2016 spill conditions, structural spillway modification testing, and TDG levels. Peak flow at Cabinet Gorge Dam occurred on May 28 at just under 53,000 cfs.

LPO Angler Incentive Program: Bouwens provided background information on the program. This year overall there is a decline in angler catch rates for Lake Trout.

LPO Trap and Gill Net Program: Components of this program are the same as previous years. In 2016, funding for the 2017 program was approved by the MC at a reduced amount to reflect an increased cost-share from the Bonneville Power Administration. IDFG personnel continue to modify strategies in an attempt to improve catch efficiency and reduce by-catch mortality.

Box Canyon Reservoir Northern Pike Suppression: Continued to implement the project through the use of gill nets to target Northern Pike. This is the second year of implementing the program at a reduced level.

LPO Bull Trout Survival Study: The primary goal of this study is to evaluate the outmigration to returning adult survival of Bull Trout and Westslope Cutthroat Trout in Trestle and Granite creeks. This is a multiple year study and Bouwens is just starting to see the return of adults tagged as juveniles.

Clark Fork Field Station Feasibility Study: The site is used by IDFG and Avista personnel as field offices. A contractor uses the facility as a base of operations for the LPO Trap and Gill Net Program. An environmental review and hazardous materials survey were completed to determine what facility repairs are needed. After the final report is received IDFG and Avista will discuss next steps.

Strontium Isotope Baseline: The goal of the strontium isotope baseline study is to collect water samples this fall to establish baseline data throughout the system. This information will be used to help develop future projects.

Water Quality Trophic Monitoring: Continued water quality trophic and phytoplankton monitoring with the goal of identifying the trophic status of LPO, compared to lower Clark Fork River and Pend Oreille River.

GSCP Alternative: Completed construction of modifications to spillways #4 and #5. This fall conduct additional post-construction TDG testing. Based upon those tests, begin final design engineering for spillways #1 and #3.

**Potential project proposals, in various stages of development, for 2017 AIPs:**

- Bull Trout population modeling – IDFG
- Lower Clark Fork River, Pack River, and Lightning Creek spring creel survey – IDFG
- Strontium isotope study – IDFG
- Fall Walleye netting study – IDFG

**Appendices F4 and T: Water Quality Protection and Monitoring Plan for Maintenance, Construction, and Emergency Activities and Project Operations Package**

Oldenburg provided an overview of the measures contained in these appendices. All costs for these measures are borne by Avista. The project operations package defines general operating limits for Noxon Rapids and Cabinet Gorge dams and the protection and monitoring plan serves

as standard operating procedures under certain circumstances, such as operating outside of the general operating limits. Avista held the Project Operations meeting and relayed information to the USFS. There were no variances from the general operating limits and none are anticipated for the remainder of 2016.

### **Grant Writer Update**

Watkins provided an update on 2016 grant funding, with a total of \$224,000 received. Grant funding was secured for the Bull River riparian revegetation project, Thompson Falls State Park trail, and Sanders County EWM herbicide projects. Watkins is in the process of phasing into retirement and is training Drumheller to be the new grant writer. Contact Watkins and Drumheller for assistance with project proposals.

### **Other**

Nash requested an addition to the agenda – Rock Creek water right application. On April 28, 2014, Hecla submitted a water right application for water use inside of the future mine. On September 2, 2016, the objection period for the preliminary determination to grant the permit from DNRC closed. Nash asked if Avista reviewed Hecla's water right application. Hall replied that Avista reviewed Hecla's water use application, and clarified a water right permit is different from water use permit. Avista did not submit any objections to Hecla's water use permit application and has no standing to do so. Avista holds water rights for storage in Cabinet Gorge Reservoir. These storage water rights are subordinate to other water uses. Avista is not the regulator for this process. The hope is that all activities that involve a public natural resources will be held to the same standards that Avista is held to. Grupenhoff stated that it is important to understand that 3D modeling is just a model, the Rock Creek bedrock system is complex and fractured, and there are unknowns associated with the project until the hole is drilled. Neither the USFS nor the USFWS deem it necessary to provide additional protection for Bull Trout through in-stream water rights.

Nash questioned if it right to move forward drilling a hole for the mine when there are so many unknowns for the surrounding ecosystem and aquifer and stated that Avista has a lot of money and influence, a multi-million dollar corporation, with a direct and vested moral and personal interest in the Clark Fork Project. Nash feels that it is important that Avista use their political clout to push the issue forward. Hall understands Nash's position; however, this is incumbent on those regulating agencies that have authority, Montana DEQ, USFWS, USFS, and MFWP, and not on Avista. These agencies have the authority to hold Hecla accountable to ensure the project is properly permitted and regulated. The WRTAC members discussed Murphy law, water right, and water use permits.

Hernandez stated Cabinet Resources Group was an original signatory for the CFSA which was at the time a useful tool for implementing projects, now it appears to be a political document. This year is an election year and politicians are advocating for the mine to move forward. Cabinet Resources Group wants all of the WRTAC stakeholders to keep this in mind. Nash plans on meeting with Hecla representatives in Libby and would like Avista to attend. Hall replied Avista does not have standing to push the issue and relies on those regulating agencies to ensure that all applications are thoroughly reviewed and projects are held to high standards.

Oldenburg added that Avista has provided comments every step of the way for this project. Oldenburg asked Nash and Hernandez to clarify if they were making a request of the WRTAC or of Avista. They clarified that this was a request of Avista. Oldenburg stated that in that case, Avista would be willing to meet with Nash and Hernandez if they wished to discuss further. Montague offered to provide Nash with contact information for personnel that can provide clarifications on the water use permitting process.

### **Wrap Up**

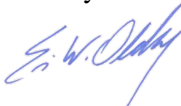
Upcoming meeting schedule:

- Wednesday, January 4, 2017 – Project Ranking Meeting
- Tuesday, January 17, 2017 – WRTAC Meeting

Oldenburg encouraged stakeholders to provide feedback and suggestions on the WRTAC meeting, thanked everyone for attending, and the meeting was adjourned at 4:15 p.m. (MST).



*Memorandum*  
*Noxon Natural Resources Office*

**DATE:** August 30, 2016  
**TO:** Water Resources Technical Advisory Committee (WRTAC)  
**FROM:** Eric Oldenburg, Avista   
**SUBJECT:** Fall WRTAC Meeting Announcement

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I would like to invite you to our upcoming WRTAC meeting to be held Tuesday, September 13, 2016 in Noxon, Montana. We will begin at 10:00 (MST) at the Emergency Services Building, directly across the street from the High School. Lunch will be provided and I expect us to adjourn before 5:00.

Our agenda will be straight forward. The 2016 Annual Implementation Plans (AIPs; as approved by the Management Committee [MC] on March 15, 2016) will be used to facilitate our discussions; thus, it would be useful if you would bring a copy to the meeting. We will review the water resource AIPs with regard to what has been completed, what needs to be completed, and any variances. In addition, beginning at this meeting, Aquatic Program Leaders will be updating the group on new work that may be proposed for 2017 as well as changes to existing programs that may be proposed for 2017. The goal of this effort is to ensure all Parties have the opportunity to participate and provide input as proposals are being developed. Lastly, we will need to identify whether there are any issues or actions that will need to be forwarded to the MC for their September 27 meeting.

Since our meeting on January 19, you have received correspondence on a few issues. Below is a short review and update:

- January 15: Appendix B Consent Mail; design and printing of Cabinet Gorge Reservoir bathymetric maps; approved February 3.
- March 15: The MC approved the 2016 water resources AIPs, with some minor modifications, as approved and/or modified by the WRTAC on January 19.
- July 21: Appendix A Consent Mail; request to utilize up to \$1,500,000 for the purchase of 330 acres along Twin Creek; approved August 5.
- July 21: Appendix C Consent Mail; Tributary Trapping and Juvenile Bull Trout Downstream Transport Program protocol revisions; approved August 8.

If there are any other specific agenda items that you would like to discuss at this meeting, please let me know as soon as possible at 406-847-1290 or [eric.oldenburg@avistacorp.com](mailto:eric.oldenburg@avistacorp.com), so that I can ensure we have the appropriate information on hand. Please give me a call with any additional questions or concerns. I look forward to seeing you all on September 13.

cc: Bruce Howard, Tim Swant, Nate Hall, Catherine Kenney, Lisa Vollertsen  
Enclosure: Clark Fork Settlement Agreement 2016 Aquatic Program Leaders (APLs)  
Ref: WRTAC\_MEMO\_2016\_08\_30\_FINAL

## September meeting agenda

- Walleye studies presentation – See January 19 WRTAC meeting minutes – page 5.
- Inform interested parties of proposal due dates and provide the opportunity for them to learn of proposed future plans and have their views heard earlier in the AIP planning process.