
COLUMBIA RIVER BASIN 100TH MERIDIAN TEAM MEETING

June 27–28, 2017
Helena, Montana

Attendees: Eric Anderson (WDFW), Randy Arnold (MT FWP), Beau Baker (U Montana), Linda Beck (USFWS), Martina Beck (BC Ministry of Environment), Rick Boatner (ODFW), Tom Boos (MT FWP), Justin Bush (WA Invasive Species Council), Cameron Scott (US Dept. Interior), Cameron Scott (US Dept. Interior), Bryce Christiaens (Missoula County Weed District), Janet Conlin (Cocolalla Lake Association), Tim Counihan (US Geological Survey), Lisa DeBruyckere (Creative Resource Strategies), Tim Dykstra (US Army Corps of Engineers), Leah Elwell (Invasive Species Action Network), Joanne Grady (USFWS), Erik Hanson (Flathead Basin Commission), Thomas Herron (Idaho Department of Environmental Quality), Stephanie Hester (MT Invasive Species Advisory Council), Bryan Horsburgh (US Bureau of Reclamation), Rayola Jacobsen (NW Power & Conservation Council), Lloyd Knight (ID Department of Agriculture), Tamara Knudson (Spokane Tribal Fisheries), Madelyn Martinez (US Army Corps of Engineers), Tom McDonald (Confederate Salish & Kootenai Tribes), Sue Mills (US National Park Service), Caryn Miske (Flathead Basin Commission), Alan Monke (US Bureau of Reclamation), Nathan Owens (Utah Division of Wildlife Resources), Blaine Parker (Columbia River Inter-Tribal Fish Commission), Stephen Phillips (Pacific States Marine Fisheries Commission), Christine Pratt (Seattle City Light), Anthony Prisciandaro (US Bureau of Reclamation), Stevan Raye (US Bureau of Reclamation), Johnna Roy (USFWS) Jesse Schultz (WA DFW), Adam Sepulveda (US Geological Survey), Hilary Smith (US Department of the Interior), Aurelia Skipwith (US Department of the Interior), Mike Stephenson (Idaho Power Company), Mark Sytsma (Portland State University), Pam Taylor (WA DFW), Richard Turner (US Army Corps of Engineers), Damian Walter (US Army Corps of Engineers), Kate Wilson (Alberta Environment & Parks), Bob Wiltshire (Invasive species Action Network), Tom Woolf (MT FWP), and Nic Zurfluh (ID State Department of Agriculture).

Remotely: Karen Vargas (NDOW), C. Allen and M. Anderson (Glen Canyon NRA), Leslie Bach and Stacy Horton (NW Power & Conservation Council),

I. Montana Fish, Wildlife & Park Welcome (*E. Ryce, MTFWP Hatchery Bureau Chief*)

Eileen Ryce welcomed everyone to Montana and the *Montana Wild* education facility.

II. Montana Update: Response to Quagga/Zebra Tiber/Canyon Ferry Incident (*R. Arnold, MTFWP Montana Mussel Response Team*)

Randy Arnold described Montana's response to the Tiber/Canyon Ferry invasive mussel incident in two Montana reservoirs. Upon detecting mussels in these reservoirs, the Governor declared a natural resource emergency, which increased awareness, liberated resources to enhance response, and consolidated a command and decision making structure. The Incident Command Structure was implemented, which included a dual command structure and traditional ICS roles (Operations, Planning, Logistics, PIO, Liaison), and then the Operations Chief created taskforce teams, which included control and containment (WIS, decontamination, drawdown), and sampling/monitoring teams (backlog, current, and future). Response included development of a plan for spring monitoring, WID, and decontamination activities. The plan included mandatory inspection before launch for any boats coming into the state; any boats or equipment coming into the CRB require inspection before launch; increased WID stations, including days and hours/day; and significant increases in sampling and monitoring effort. The Montana Response Team first had to address needed resources to implement the plan, which included FWP/DNRC existing budget, an emergency fund (\$750,000), and a funding request and timing, which included Governor approval, HB3 special appropriations, federal assistance and Water Resources Development Act, and joint FWP/DNRC budget appropriations. Once resources were defined, the team shifted to implementation, and Operations developed several task force teams to implement. Rules and regulations were implemented, local water boater programs were implemented at Canyon Ferry and Tiber reservoirs, monitoring increased from 610 to 1,500 samples, and from sampling on 180 to more than 200 water bodies. Lessons Learned included communication/involvement; public, partner, and legislative support; and recognizing the

inherent elastic nature of staffing and impacts; and integration with existing programs in agencies during and post response.

III. Montana Invasive Species Advisory Council Update (*B. Christians, MISAC*)

Bryce Christiaens talked about the Montana Invasive Species Advisory Council and its 21 members. The Council was created by statute, and they began their work by describing the need for a statewide assessment. A statewide management assessment was conducted in Montana, which included more than 200 individuals and entities; a Governor's summit was then held to vet the results of the assessment. Then an invasive species framework was developed (which was completed two weeks prior to the detection of mussels at Canyon Ferry and Tiber reservoirs). The connections built with the legislators through the assessment and summit as well as those enhanced during the legislative session contributed to many of the results achieved associated with the initial response and planning efforts. During the mussel response, MISAC began planning for 2017 activities, which included the development of a rapid response plan, which is currently being developed through FWP and DNRC. There are three major tasks the council seeks to move forward:

- Continuing rapid response development—and a request for a 2018 RR exercise in Montana;
- Develop a larger science advisory panel versus one that just works for Montana; funding exists for people to participate on the science advisory panel (from the western states—not just Montana); and
- Identify individuals that could take on the ICS roles associated with QZ response, including skill development and training.

IV. Preventing the Spread of AIS - Flathead Basin AIS Update (*C. Miske*)

Caryn Miske, the Executive Director of the Flathead Basin—their statutory mission is to protect the waters coming into and out of the Flathead Basin. They created an AIS fund to address emerging AIS issues. The Flathead workgroup convened to discuss the management of the Flathead and initiate an inspection before launch program (address limitations of firewall/perimeter defense; as well as limitations of containment/local boater programs). They sought to increase seasons/hours of watercraft inspection stations as well as greater enforcement, increased eDNA monitoring, a rapid response plan, and preemptive measures. HB622 created the Upper Columbia Pilot Program, which allows the Flathead Basin to operate certification stations, establish a boat sticker program, initiate automated inspections, and petition FWP for rule-making (closure of launch sites, inspection before launch program, and prohibition or restriction of certain vessels and equipment). They are also discussing a closure on recreational seaplanes. In the meantime (while HB622 is underway for 2018), the Flatheads are operating a new station in Kalispell, conducting monitoring, revisiting the K9 program, participating in draft rulemaking, and adopting a Lake County Ordinance and mill levy to generate funding. The CSKT has a modified “inspect before launch” on the southern half of Flathead Lake/River—boats must be inspected prior to launch; if you're a Flathead resident and don't leave the basin, you only need to be inspected once. If you are a nonresident, you need to be inspected each time prior to launch. An MOU exists between the Flathead Commission and the Blackfeet Reservation—all water bodies are closed to motorized use except for four water bodies, where motorized equipment is allowed (the inspections are water body specific—each piece of equipment must be inspected prior to launch in that water body). Other restrictions in the Blackfeet AIS program in 2017 include three mandatory stations, two certification stations, one decontamination station, expanded hours/seasons, limitations on motorized boats, a ban on felt-soled waders, eDNA monitoring and enhanced enforcement. Glacier National Park does not allow motorized boats. The City of Whitefish has gated Whitefish Lake—both launch sites are gated, there is a \$40 mandatory decontamination prior to launch for boats; boats with ballast tanks, or that have launched in a mussel fouled water in the last 30 days, have standing water, and are too dirty to inspect, must be decontaminated before launching. Rulemaking will bring consistency and integration to the various Flathead AIS programs while retaining the highest levels of protection.

V. State of Utah: Update on Lakes Powell; Deer Creek, Bear Lake (*N. Owens, UTDNR*)

Lake Powell has a local boater program that includes an online course and a sticker they attach to their boat. A new rule change allows whitewater rafting companies to apply for a certificate of registration, which allows them to decontaminate their rafts using quaternary ammonium (five companies have signed up, including one from Grand

Junction). Near the Bullfrog area, two companies are certified to decontaminate larger and complex boats, or any boats that pull out of Lake Powell with mussels attached. Utah's program is transitioning: All interdiction work has transferred to enforcement; this effort has increased the amount of time biologists can monitor and sample (sending 4,000 samples for microscopy in 2017); and the separation of interdiction and monitoring has resulted in the development of a more flexible rapid response strategy. The 2017 strategy includes rule changes (boats that pull out of Powell must be decontaminated and must wait 30 days before launching elsewhere in the state); mandatory plug rule; new decontamination services in Salt Lake City (private businesses); a concentration of resources at high priority waters; and a Deer Creek Local Boater Program (focus efforts on boats that leave Deer Creek Reservoir). At Bear Lake, there were Idaho/Utah redundant inspection stations; now Idaho passes funds to Utah to augment existing Utah inspection stations. Utah hires Idaho people to staff the stations. This approach will likely occur with Wyoming at Flaming Gorge. Powell developments include new AIS interdiction specialists, closer coordination with NPA, documentation of more mussels (mussels floating in the water column—hydrostatic mussels) and more anchors with mussels (boaters are not required to pay for decontamination); and some day-use boats found with attached mussels. Hite Marina has opened for the first time in several years—trying to figure out a way to direct staff there and fund it, but it's difficult because of the remote location. Two administrative checkpoints are targeting Bullfrog (408 boats contacted, compliance of 76%—of the noncompliant, 63% were from Utah, and the remaining number were from Colorado). Utah is currently assessing whether it can staff 19 hours/day at downlake Lake Powell and 1-15 Point of Entry; if there can be increased engagement with Arizona to provide more coverage at Antelope Point Marina; further work with NPS to ensure advanced notification for commercially-hauled boats retrieved from Powell; brochure development specific to uplake versus downlake, with incorporation of Arizona and Colorado information; and increased law enforcement coordination with Colorado and New Mexico. Deer Creek is listed as suspect through January 2018, with bi-monthly early detection sampling, two dive surveys planned, and development of a local boater program (sticker) (as many as 90% of boats are Deer Creek-only boats).

VI. USACE Watercraft Inspection Program Update and Review

STATE UPDATES ON STATION OPERATIONS

- **Montana Fish, Wildlife & Parks** (*Tom Boos, FWP*)—18 Class I (permanent) inspection stations and 10 Class II stations (at offices). There is an MOU with Wyoming to accept boats that have been checked in Wyoming. There is an agreement with Alberta (checking both ways at Coutts). Outreach is ongoing and complex, including signs, billboards, etc. New this year – every boat inspected is sealed with a white seal, purple seals are installed at decontamination stations (every boat off Tiber and Canyon Ferry – if inspected and decontaminated, has a purple seal); increased enforcement presence, and high focus on standing water. In 2017, more than 9,800 boats have been inspected (7 boats have been fouled with QZ); tournaments are easy to handle because boat owners are very aware and there are pre-tournament meetings with fishing tournament directors. Montana needs 159 seasonal staff to be fully staffed. New staff include a bureau chief, five area supervisors, an outreach specialist, and four game warden positions. There are four decontamination stations at Canyon Ferry and two at Tiber; every boat coming off the reservoirs needs to be decontaminated unless it's a local boater program. Ramps are open only to local boaters; all other ramps are open. Public ramps have decontamination stations attached to them. The local boaters take an online test, then receive a sticker, and can launch at local boater ramps. If they are moving their boat to another water body, they must be decontaminated.
- **Oregon Department of Fish and Wildlife** (*Rick Boatner, Oregon Department of Fish and Wildlife*)—Oregon's program is hosted with the Oregon State Marine Board. In 2016, about 17,000 inspections were conducted. Ontario—6,294 inspections; 260 decontaminations (12 boats with mussels); Salem—4 inspections, 2 decontaminations; Gold Beach—1,987 inspections, 8 decontaminations; Central Point—7,371 inspections, 81 decontaminations; Klamath Falls—838 inspections, 38 decontaminations; Lakeview—242 inspections, 1 decontamination). Boats came from 49 states, Mexico and Canadian provinces. In 2017, two stations started earlier; almost 8,000 boats have been inspected to date. ODFW has 13 staff; all funding is through the Aquatic Invasive Species Prevention Permit—without the WRDA funding, the program would have shrunk by \$150,000. Two boats from Tennessee with

zebra mussels in 2016. During the 2017 legislative session, HB 2321 requires drain plugs to be removed, requires a permit for 8 feet or longer, allows Oregon State Marine Board to combine permits, and has specific directs for law enforcement (must send watercraft back to inspection stations if the watercraft bypasses the station).

- **Washington Department of Fish and Wildlife** (*Eric Anderson, Washington Department of Fish and Wildlife*)—WDFW's WID program has been entirely housed within the enforcement program. The program started out as sporadic roving check stations, and has since been overhauled. 2017 is a building year, and WDFW is hosting two static stations near Spokane and I-395. At least two technicians conduct the inspections, and one officer is available for anyone that bypasses the stations. They have completed 2,200 inspections to date in 2017. The two inspection stations are at ports of entry. For 2018, staff are working on a secondary site in the Spokane area that is an abandoned weigh station that will establish a permanent inspection station on the Washington border with Idaho.
- **Idaho Department of Agriculture** (*Lloyd Knight and Nick Zurfluh, Idaho Department of Agriculture*)—19 boat check stations are slated to be open this season, but four new check stations are opening at Rose Lake (south of Cedars), Nez Perce Tribe site at Kooski, southbound on I-15 from Montana, and highway 93 out of Salmon. Three roving crews will staff tournaments and boat shows. Idaho has agreements with local entities (about 20 hours/week average); great support from local law enforcement. Cooperative agreements foster local buy-in. WRDA funding could provide additional law enforcement support. Idaho will have a \$3.2 million state-supported program (a growth phase for them). There are four new positions to fill as well as replacing two staff, who recently left the program. Idaho does 800-900 samples per year for monitoring, and will likely increase with WRDA funding. Idaho has intercepted 17 fouled boats to date.

USACE UPDATE (R. TURNER, T. DYKSTRA, US ARMY CORPS OF ENGINEERS)

Tim Dykstra, Environmental Stewardship Program Manager—USACE Northwest Division office (covers about 1/3 of the country). The Corps needs both authority and appropriations (funding) to do anything. The Water Resources Development Act is the authorization piece, and it passed in 2014; it included a provision to modify an existing program that gave the Corps the authority to establish WID in the Columbia River Basin (CRB). Four issues:

- WRDA language said that the Corps would work with the state to establish WID stations in the CRB (which meant that resources could not be expended outside the CRB);
- Implementation guidance was required (Assistant Secretary of the Army);
- There was uncertainty about the availability of funding, and the Asst. Secretary was not eager to write the implementation guidance without funding; and
- Lack of a plan (letter report), which described how the program would be implemented.

The four problems have been solved; the authority issue was changed in the WIN Act passed by Congress in December of 2016 – the new language states the Corps is authorized to fund the states at a 50:50 cost share for the establishment of new and existing WID stations; the stations must be within the four states but with the intent to protect the CRB; implementation guidance was issued in March of 2017; there is \$9 million for the Corps for WID stations and associated monitoring; the letter report was completed in April of 2017. The FY18 bill is currently being drafted. Pacific States Marine Fisheries Commission played an integral role serving as a liaison among the states and the Corps to disburse the funds and provide oversight to the program.

VII. UMPS IV/ 2017 RR Exercise/2017 WRP Meeting/ WRP Website (L. Elwell, ISAN; L. Beck, USFWS)

- UMPS IV—Chemical decontamination; currently, UMPS III recommends hot water. Chemicals can have detrimental effects on plants, animals, and microbes. The goal is to improve knowledge on chemical use in boat decontamination to compile information about the efficacy of chemicals, determine legal or appropriate use, incorporate suggestions, and correct misinformation in a methodical fashion.

- WA Rapid Response Exercise—A rapid response exercise will be held this fall in the Wenatchee area; looking at the Columbia River area so that the group can test a variety of scenarios.
- WRP Annual Meeting—Annual meeting is in San Diego September 13–15, 2017 at the Horton Hotel (www.fvs.gov/answest/); the agenda will include a California-focused session, a coastal-focused session, a dreissenid-focused session, and a field trip to the San Diego Port and Tijuana River National Estuarine Research Reserve. WRP is under a FACA review, and it could potentially affect the WRP.
- WRP website—Linda Beck (Region 1 Invasive Species Coordinator)

VIII. Invasive Mussel Initiative (*Scott J. Cameron, Acting Assistant Secretary for Water and Science, and Principal Deputy Assistant Secretary for Policy, Management and Budget DOI and Aurelia Skipwith, Deputy Assistant Secretary for Fish and Wildlife and Parks, DOI*)

Scott Cameron discussed an action document titled, *Safeguarding the West from Invasive Species: Actions to strengthen to federal, state, and tribal coordination to address invasive mussels, which can be found here:*

https://www.doi.gov/sites/doi.gov/files/uploads/safeguarding_the_west_from_invasive_species.pdf. The document includes **prevention efforts** (risk assessment and identification, watercraft inspection/decontamination – Columbia River Basin, watercraft inspection/decontamination – data sharing, West-wide watercraft inspection/decontamination coordination), **early detection monitoring** (eDNA and other detection technologies, sample analysis and confirmation, regional and site-specific monitoring, regional monitoring coordination), **rapid response** (technologies for rapid response and control, rapid response team), **containment and control** (facilities and infrastructure protection, prize competition, Colorado River Basin containment activities), **outreach and education** (Stop Aquatic Hitchhikers! (SAH!) website, multi-state marketing evaluation, effectiveness of outreach campaigns), **research** (research and development program activities), and **increasing capacity** (regional, state and tribal support; leadership engagement and coordination, department and agency policies and plans, regulatory improvements).

The document was developed through a series of federal agency teams that have been convening during the past several months to address dreissenids in the West. Scott emphasized the desire and importance of the federal agencies being good partners to the states in these efforts.

A total of a \$4.5 million budget increase is in the President’s budget for the Bureau of Reclamation. The Department is making a financial investment whereas much of the rest of the department is taking significant reductions. A total of only 5 programs in the US Geological Survey are not taking budget cuts in 2018, including their invasive species program.

BOR will be focusing on Vulnerability Assessments, eDNA technology improvements, compiling best practices and best strategies and technologies to control/contain dreissenids, and initiating a prize competition. The US Geological Survey is developing predictive models and methodologies to identify water bodies at highest risk, and developing and testing a portable eDNA tool. The Bureau of Land Management will be convening a workshop on the Lower Colorado from Lake Havasu downstream (expending \$1 million in 2018 on dreissenids). The Bureau of Indian Affairs will be working with the Salish Kootenai College to train students as well as supporting WID stations on the Blackfoot Reservation, and working with the Columbia River Inter-Tribal Fish Commission (CRITFC).

Aurelia Skipwith discussed the collaborative efforts of the federal agencies, states, tribes and others to address invasive species issues. Sound science, the rule of law, and common sense drive outcomes. She talked about the mission of both the USFWS and the National Park Service. She described the role of the federal and state agencies in engaging in effective communication and identifying key gaps to enhance efficiencies. She described elements of the action plan that the US Fish and Wildlife Service and the National Park Service are leading. She noted the National Park Service is recognized as an economic engine for everyone, including local communities. The action plan emphasizes the NPS role in WID programs (Glacier, Grand Teton, Lake Roosevelt and Yellowstone), data sharing, and the leveraging of the technology with partners (which requires integration of systems and communication).

Between now and the WGA meeting this winter, there will be further exploration of the action items in the action plan to assess how best to implement and to work with the individual agencies on implementation approaches.

IX. “Building Consensus” —Albuquerque (J. Grady, USFWS)

Phoenix 2012 convened attorneys general, AIS coordinators, law enforcement supervisors, and natural resource agency attorneys, and the outcome was a 26-point action plan. We have developed model law, protocols and standards, and are at the model regulations step in the process. We have held *Building Consensus* meetings in Denver (August 2013, February 2014, and April 2016) as well as in Albuquerque (April 2017). Numerous subcommittees and related groups focus on WID protocols and training manuals, waterbody sampling, lab standards, legal team, data sharing, inreach/outreach, boat industry partnership, WISCE, and marine owner engagement. One of the most significant tasks *Building Consensus* tackled was watercraft inspection and decontamination definitions, protocols, and standards. The western AIS website, www.westernais.org, contains information specific to coordination, education/outreach, news, pathways, response, regulations, and training. Waterbody sampling addresses monitoring, definitions, field sampling, and lab standards committee. Waterbody classification definitions were developed through *Building Consensus*. The group also achieved consensus on when waterbodies could be delisted. Regional WID data sharing is a boat inspection data system used by AZ, CO, NM, NV, UT and Lake Tahoe, with the goal to have all states, provinces, NPS and other entities performing WID participate. The highest priority is providing timely electronic watercraft movements from infested waters to negative locations. A secondary priority is overall improved WID operations, reporting, management and customer service through rapid, standardized data collection and risk assessment. The *Building Consensus* group also achieved consensus on seals – the seal tells the next inspector that the watercraft has not launched since it left the inspection station, and the receipt provides information about the previous launch. All boats inspected or decontaminated that are destined for a different state should be sealed and given a receipt. Dry time – there has been some consensus, but work to be done. Essentially, heavily encrusted, large, complex, boats from infested waters require full hot-water decontamination, per UMPS, followed by a 30-day minimum dry-time period. *Building Consensus* has also addressed inreach and outreach through a PSMFC webinar series, boat industry partnership, WAFWA/WRP dialogue, NISAW, and web pages. Future needs are focused on specific targets of AFWA/NABLA/fish coordinators/expand to other regional groups/National Association of State Legislatures/State invasive species councils/any regional invasive species groups/PNWER/WGA. In addition, we need to develop attractive, consistent, and standardized outreach pieces.

- Phase I - Model legislative provisions were developed: *Preventing the spread of aquatic invasive species by recreational boats: Model legislative provisions and guidance to promote reciprocity among state watercraft inspection and decontamination programs.*
- Phase II - The second piece to the legislative goals was the development of model regulations for state watercraft inspection and decontamination programs.
- Phase III – A model MOU to encourage collaborations across state lines.
- Phase IV – Workshops for agencies and attorneys general (potentially in association with NISAW). Throughout this process, there has been increased coordination and communication with the Western Association of Fish and Wildlife Agencies and Western Regional Panel. The group has also been working with the boat industry (ABYC) to design boats to better drain and not host invasive species.

X. AIS Program Informational Reports

- **Nevada Department of Wildlife** (K. Vargas)—QZ mussel monitoring (biologists routinely monitor for QZ). There have been no new QZ mussel detections in Nevada (Colorado River only). Nevada uses PCR (DNA) and microscopy. 2016 – 17,000 inspections (10,000 at Lake Mead NRA); 1,000 decontaminations (664 Lake Mead NRA). 2017 (first six months) – 6,000 inspections, 350 decontaminations, 276 @ Lake Mead NRA. Nevada’s Wildlife Commission approved the drain plug rule in December of 2016—any time you travel on a public highway in Nevada, you must have your drain plug removed. Nevada has a draft AIS management plan; it’s out for review; anyone is welcome to comment. Comments to date have focused on reciprocity. Direct any questions to Karen Vargas @ kvargas@ndow.org.
- **Montana Fish, Wildlife & Parks** (T. Boos)—New laws and rules include mandatory inspection prior to launch for out-of-state boats and boats that cross the Continental Divide; decontamination requirements at Canyon Ferry and Tiber; no lake or river water can be transported in the state; ramp restrictions; local boater program. SB 622 puts the invasive species council in code, creates the Upper Columbia Conservation Commission, provides county authority to adopt ordinances/resolutions, includes a Missouri River containment program,

and an Upper Columbia pilot program. HB 363 is an AIS prevention pass and a hydropower quarterly fee. FWP's monitoring program will address mussel high-risk waters. Montana will be collecting samples in Tiber (process using DNA and microscopy) to compare when it is best to sample using which method; are revising protocols on sampling.

- **Washington Department of Fish and Wildlife** (*J. Schultz*)—
 - **Funding Committee**—WA created an AIS Funding Committee to develop ideas to pursue new sources of funding. WA currently has a \$2 resident boater fee. The proposed sources of funding include the resident boater fee, a non-resident boater fee, an aquatic conveyance/seaplane fee, and a public utility tax diversion). This would total \$2.25 million.
 - **European green crab**—The state has been spending a significant amount of time addressing a European green crab introduction at Dungeness spit. It is a prohibited Level 1 species, which means a management effort must be made to attempt to control. A possible source of the infestation is East Sooke, BC, where a healthy population exists. They implemented a rapid response, which included setting 25–125 traps per day. To date, they have caught 50 males and 30 females.
 - **African clawed frogs**—A prohibited level 1 species in Washington. They have been trapping the clawed frogs, which outcompete bullfrogs. WDFW erected fences around all three ponds (about 5 miles of fencing). WDFW proposed a 100% sodium chloride eradication chemical treatment – sodium chloride at 16 ppt for 24 hours. The permit and label was obtained (WDFW had to create the label).
 - **Recreation Conservation Office Boating Facility Grant**—Two grants were approved for decontamination stations in Spokane and one at Moses Lake. Construction will occur in 2018, and the stations will be up and running in 2019.

- **Idaho Department of Agriculture** (*L. Knight, N. Zurfluh*)—Several house bills provided increased funding for WID in 2017 and 2018. The total fund is now \$5.5 million. A new executive order replaces the previously expired order to keep the IS council up and running. The Council meets twice annually. Idaho will be pulling 800–900 samples for monitoring waterbodies. Idaho's rapid response plan defines how they would respond if they have a detection.

- **Glen Canyon NRA** (*C. Allen, M. Anderson*)—The area faces hiring challenges, primarily because of the shortage in housing for seasonal employees. Glen Canyon NRA seeks to reach boaters that sell their boats and slips by working with concessionaires.

- **Spokane Tribal Fisheries** (*T. Knudson*)—Spokane Tribal Fisheries Staff removed 2,000 pike from the upper portion of Lake Roosevelt. There is monitoring going on among the partners responsible for managing the lake, and there is a proposal for development of a long-term eradication plan.

- **Yellowstone National Park** (*S. Mills*)—Yellowstone National Park installed barricades that note an inspection is required before launching. Once boaters come off the water, they can remove the barricade. They are looking to develop a science panel to assess AIS management, operation, monitoring of Yellowstone's AIS program. There are no other increased restrictions.

- **Canada Updates:**
 - **British Columbia** (*M. Beck*)—BC is undergoing ongoing eradication work and is conducting plant surveys across BC during the summer of 2017, a *Don't Let it Loose* Campaign for prohibited fish/aquarium trade species, ongoing northern pike suppression work in the Columbia River/Kootenay region. British Columbia has an ongoing partnership with invasive species across the province on AIS and invasive plant work. One of the more recent discoveries was cherry shrimp, a freshwater shrimp averaging 15–30mm in size; the species is native to China, Japan, Korea, Vietnam, and Taiwan; they were found in a public warm spring pool near Atlin Lake – likely an aquarium pet release. BC is partnering with its Department of Fisheries at the federal level to assess eDNA as a detection tool for invasive species, targeting invasive fish species (yellow perch, smallmouth bass, northern pike, largemouth bass, ZQ). The goal is to assess eradication success. The BC Invasive Mussel Program incorporates WID (including outreach and education) and lake monitoring. In 2017, there is \$4.5 million for the program (funded through provincial and hydropower companies). The

program is currently operating with 68 inspectors (9 stations dawn to dusk, 7 days/week, 1 station operating 24 hours). The inspection season is now April/June to mid-November. The 2017 program expansion included the addition of a mussel-sniffing dog. A total of 46 tickets and 36 warnings were issued in 2015 for failing to stop at inspection stations (\$138 fine). In 2016, 24,500 boats were inspected, and 17 mussel-fouled boats were detected. In 2017 to date, 6,657 boats have been inspected, and 7 mussel-fouled boats have been detected. The 24-hour stations started on June 11, and a total of 11 boats have been inspected during the night hours – all low risk. BC is in the process of developing a 1-800 number to be displayed on reader boards when stations are closed. BC has an ongoing partnership with highways for reader boards. 2017 lake monitoring – will be doubling the number of samples collected compared to 2016; will be increasing lab capacity for sample analysis; expand and build on existing partnerships for sample collection; risk matrix/strategy for lake selection. Samuel Fischer and Mark Lewis (University of Alberta) are trying to determine how boaters travel from infested jurisdictions to other locations. He has preliminary results. BC has a notification address for receiving all watercraft notifications: COS.Aquatic.Invasive.Species@gov.bc.ca. BC is working with the Canadian Border Service Agency for notifications on movement of watercraft. BC is interested in understanding when jurisdictions want to receive watercraft notifications (only for mussel-fouled boats?). It's important to know when jurisdictions are applying seals.

- **Alberta** (*K. Wilson*)—Zebra mussels are multiplying in Lake Winnipeg, and are now found on shorelines. A third lake, Singush Lake, was found in Manitoba (40 miles from the Saskatchewan border) – only local boaters can boat there, and they cannot take their boats anywhere else. Parks Canada bans motorized boats in Waterton Lakes park – significant community resistance. 2016 watercraft inspections – 19,000 inspections, and 17 mussel-fouled boats. In 2017, there are 13 inspection stations, and two new stations at Ports of Entry. There is increased operational season and hours – 24 hours at Coutts and Dunmore, 16 hours at Vermillion, and 10–12 hours at all other stations. Response staff are on call, and there is no shared database. In 2017 to date, there have been 5,980 total inspections, 1,693 high-risk inspections, 147 commercial hauls, 71 canine inspections, 518 night inspections, 1,692 skippers, 5 mussel-fouled boats, 198 hot washes, and 58 weeds. Alberta is conducting their own decontamination training. Canines have a new target – *Thesium arvense*, a perennial herb in the Sandalwood family. 2016 fisheries regulations include pull the plug – all watercraft being transported must have their plug pulled. The *Clean, Drain, Dry* campaign is being implemented. Both quagga and zebra mussels are prohibited in Canada – dead or alive. There is a western AIS agreement with BC, AB, SK, MB, and YK and a working group of AIS coordinators from each province/territory. Brand new commercially hauled boats have been tested in potentially dreissenids-infested waters, and travel through Canada carrying water – Alberta is reaching out to manufacturers to create a safe list for newly manufactured boats (Montana has the list). The only jurisdiction that is currently considered low-risk is British Columbia. Alberta is working with BC on a passport pilot for frequent boaters that boat only in Alberta or BC. Alberta has diploid versions of flowering rush, and has only one herbicide registered for use. *Phragmites* was found in Alberta last fall along a railroad right-of-way, and is now found in 9 different locations. Goldfish – 7 rotenone treatments were conducted in 2016. Prussian carp is unregulated, and Alberta is encouraging people to catch and kill this species. Whirling disease was detected in August in 2016 for the first time in Canada – a small waterbody inside Banff National Park; results to date include its presence at five aquaculture facilities that tested positive, 13 sites in Banff National Park, and 4 watersheds. Mandatory decontamination protocol now includes 3 levels (white zone protocols, yellow zone protocols, and red zone protocols), which must be used by all people associated with government work. Potash project – aiming for a December 2017 submission – currently preparing for a 5-batch analysis (chemistry).

XI. *Don't Let it Loose* Campaigns—Washington and Montana (*B. Wiltshire, ISAN and J. Bush, WISC*)

The campaign was originally developed in Florida in the Everglades. Bob interviewed every pet store owner in Montana to better inform pet store owners and develop relationships with the store owners so that the stores could serve as a place for people to return unwanted pets. ISAN developed outreach materials for the campaign, such as stickers pamphlets, and fish bags. Other states are joining the efforts. There has been 100% participation in Montana. There are

pets that some pet stores cannot deal with (e.g., 2-foot-long fish, 6-foot red-tailed catfish) – we need to develop alternatives. There are limitations to the program – this is a back-end program; we need to be doing a better job of looking at front-end and middle programs, such as wholesalers, so that these species are not sold, and so that people know what they are buying. Justin Bush, of the Washington Invasive Species Council, shared what Washington is doing relative to *Don't Let it Loose*. Many agencies are concerned about aquatic invasive species, infectious diseases, AIS, and insects.

- Phase I included regional collaboration and common messaging – adopted existing outreach materials, participated in a 2016 Portland Pet Convention conference and hosted an outreach booth with the Oregon Invasive Species Council.
- Phase II was developed tailored messaging and products, incorporating prohibited species in Washington – and messaging about how releasing pets is inhumane, and how these releases detrimentally affect the natural resources people can about.
- Phase III is a potential partner inventory of facilities (pet stores, animal rescue centers, and veterinary clinics) as well as data collection and compilation on business licenses and locations. The data set can then be made available to enforcement, which conducts pet store inspections. The stores will be asked to respond to a survey that includes partnership alternatives, such as no action, unsure, outreach and education, and willing to rehome and/or resolve issues.
- Phase IV includes implementation – providing outreach materials, lists of prohibited species, and a reporting pathway information (smartphone and email hotline).
- Phase V includes pilot amnesty events, which allows people to turn in animals on the state prohibited list. Oregon is also hosting a *Don't Let it Loose* Outreach and Education campaign with high school students. In 2015, OISC held a media design contest with students (see video here: <https://www.facebook.com/NWAcademy/videos/10152920589641361/>).

XII. Flowering Rush CWMA (*L. Elwell, ISAN and J. Bush, WISC*)

Flowering rush is spreading throughout the West – a regional initiative has been developed to create a Cooperative Weed Management Area for flowering rush. In Washington state, the plant is in the tri-cities, but has not spread further – if it does, it will likely affect ESA-listed salmonids. The strategy is to create a CWMA encompassing the Columbia River Basin addressing flowering rush initially (with the potential for this group to address other AIS in the future). The Washington Invasive Species Council received a grant for the National Fish and Wildlife Foundation – Pulling Together Grant to create and coordinate the CWMA. A new steering committee for the CEMA was formed. Participants include: Washington State University, Washington Department of Ecology, Washington Invasive Species Council, Idaho Department of Agriculture, Oregon Department of Agriculture, Montana Fish, Wildlife & Parks, Montana Invasive Species Advisory Council, Alberta Environment and Parks, Columbia River Inter-Tribal Fish Commission, Kalispel Tribe, Portland State University, and the Western Invasives Network. Next steps are to host a regional summit in 2018, produce a regional management plan in the Fall of 2018.

XIII. ISAN Boat QA/QC Project; discussion on strategy with state WID programs (*B. Wiltshire, ISAN*)

The secret shopper program assesses employee performance, not the efficacy of a program, or the quality of the physical inspection of the boat. Metrics assess how well they inspected the boat. It is important to know what the most important things are that you want to get out of the evaluation.

XIV. PSMFC Rapid Response Planning Update

- Responding to an introduction of dreissenids – planning with the federal agencies (*S. Phillips, PSMFC*)
- PSMFC Columbia River Basin Vulnerability Assessments Status, www.westernais.org (website, databases, monitoring, WID) (*L. DeBruyckere, Creative Resource Strategies*)—Attendees reviewed the status of existing and pending vulnerability assessments in the Columbia River Basin:

<http://www.westernais.org/media/vatjanuary2017.png>.

- Vulnerability and Habitat Suitability of Fort Peck Lake Recreation, Water, Water Supply, and Fish and Wildlife Features to Invasive Mussel Impacts (for USACE) (*L. DeBruyckere, Creative Resource Strategies*)—The USACE is conducting a vulnerability assessment of the Fort Peck hydropower facility, and part of the assessment will include an appendix that describes the vulnerability of fish and wildlife, irrigation, water supply, and other functions associated with USACE purposes.
- Model Quagga/Zebra Mussel Reciprocal Vessel Certification Program for Clear Lake, California and Neighboring Lakes (for Clear Lake County) (*L. DeBruyckere, Creative Resource Strategies*)—Clear Lake, California received QZAP funding to develop a reciprocity program for lakes in northern California, specifically focused on lakes in Lake County as well as Sonoma Lake, Mendocino Lake and Lake Berryessa. Creative Resource Strategies, Robyn Draheim, and the National Sea Grant Law Center are conducting the assessment and developing the model reciprocity program. The goal is to develop a reciprocity program that can be modeled elsewhere in the country at a regional/local level.
- Analysis of Treatment Alternatives for Invasive Watermilfoil in Noxon Rapids and Cabinet Gorge Reservoirs (for Sanders County, Montana) (*L. DeBruyckere, Creative Resource Strategies*)—Sanders County, Montana sought to analyze treatment alternative for invasive watermilfoil in Noxon Rapids and Cabinet Gorge Reservoirs in northwestern Montana. Creative Resource Strategies and Dr. Toni Pennington conducted the analysis, which included facilitating a workshop to achieve consensus on treatment and survey options moving forward.
- Metro Vancouver Biosecurity Watershed Analysis – Terrestrial and Aquatic Invasive Species (*L. DeBruyckere, Creative Resource Strategies*)—British Columbia’s Metro Vancouver sought to conduct a biosecurity watershed analysis focused on terrestrial and aquatic invasive species, which resulted in a document describing a set of recommendations focused on prevention and control efforts moving forward:
http://www.createstrat.com/media/wemqcbiosecurity_createstrat_dec2016_final.pdf

XV. AIS Sampling in Boundary Reservoir 2016 (*M. Sytsma*)

The objective was early detection of target AIs in Boundary Reservoir for zebra and quagga mussels and New Zealand mudsnails (sampling 3x/year in the summer) – both plankton and adult mussel sampling. There have been no detections of ZQ mussels or New Zealand mudsnails, but they have detected Asian clams, flowering rush, curlyleaf pondweed and *Radix auricularia*. The Asian clam population is increasing in the system.

XVI. US Geological Survey (*A. Sepulveda*)

Adam talked about how he provides guidelines and direction to help managers use data to assess community associations, etc. Adam is compiling methods and protocols that meet critical considerations for using eDNA.

The meeting adjourned at noon on June 28, 2017.

