CRB 100th Meridian Meeting Minutes
January 22, 2020 – Portland, Oregon

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Rapid Response in the CRB

Nighttime WID stations (Lisa DeBruyckere, Creative Resource Strategies)

As assessment was conducted in 2019 that included a description of nighttime watercraft inspection and decontamination stations in British Columbia, Alberta, Confederated Salish and Kootenai Tribes, Idaho, and Montana. Aquatic Invasive Species Coordinators were asked to provide background information on their programs, costs, key challenges, and successes. Costs varied from one-time initial costs for sites lacking infrastructure (e.g., $700 for lighting to $25K for electronic message boards) to additional compensation for inspectors working evenings and weekends. Challenges included finding an adequate local work force to hire additional inspectors and law enforcement officers, boredom experienced by inspectors, safety concerns for inspectors that work alone, limited enforcement officers in evening, and adequate signage. Nighttime inspections were deemed successful based on the number of fouled boats intercepted, increased public awareness, numbers of watercraft traveling long distances, percentage of high-risk boats, use of canines to supplement human inspectors, and creating the case to find funding to support inspections.

Lessons Learned (Lisa DeBruyckere, Creative Resource Strategies)

Since 2007, Columbia River Basin entities have been hosting dreissenid rapid response exercises to prepare for an eventual introduction of dreissenids. Through time there has been a maturation in these exercises, from theoretical and tabletop, to multi-day exercises using Incident Management Structure. The purpose of this review was to compile lessons learned from past exercises to inform future exercises. A total of 9 dreissenid rapid response exercises have occurred to date: Washington (3), Oregon (2), Montana (2), Idaho (1), and Wyoming (1). Host states have expanded complexity of the exercises. Lessons learned from each of the exercises were discussed, and in particular, it was noted that after-action report recommendations made are not being addressed prior to the next

dreissenid rapid response exercise. Two recommendations were made:

- In 2020, plan for a CRB dreissenid rapid response summit to share the new online CRB Dreissenid Rapid Response Toolkit (CRB DIRT) and host multi-jurisdictional work sessions to draft products that address shortcomings and needs identified in this report from after-action reports.
    - Goal: Advance understanding of the new tool and its effective use, while convening the multi-jurisdictional entities to address much-needed actions relating to general preparedness, the components of the CRB plan, training, resources, planning, and issues that should be advanced relative to tribal sovereign nations and Canadian provinces. State-specific issues could be addressed during the summit as well as those issues that span all states and jurisdictions.
- Ensure all future state-sponsored dreissenid rapid response exercises include a team of people from a previous and recent exercise to help plan for and implement the exercise to avoid repetition of common mistakes.

Upcoming Exercises (Leah Elwell, Invasive Species Action Network)

The next rapid response exercise will be May 19-20, 2020 at Lake Billy Chinook in Oregon. It was noted that key features for successful exercises include empowering participants to make decision, maintaining the number of exercise participants to a minimum, including all relevant partners, and ensuring exercise objectives are achievable. There is discussion about potentially having an exercise in Nevada in 2021.

CRB Rapid Response Plan

www.crbdirt.com (Lisa DeBruyckere, Creative Resource Strategies; Robyn Draheim, PSMFC Coordinator; Leah Elwell, Invasive Species Action Network; Stephen Phillips, PSMFC)

An online toolkit (www.crbdirt.com) has been created that combines the content of the CRB Plan with the recently completed ESA Manual. The next step is to build out the portion of the site that deals with resources that would be used in a dreissenid response. Entities are encouraged to provide information that may expand the resources section of the website.

Declaration of Cooperation (Lisa DeBruyckere, Creative Resource Strategies; Robyn Draheim, PSMFC Coordinator; Leah Elwell, STOPAIS; Stephen Phillips, PSMFC)

Because of the integration of the ESA Manual and the CRB Plan into the new online toolkit (www.crbdirt.com), a Declaration of Cooperation has been created that would essentially replace the signatory page of the CRB Plan. States and others would use the online toolkit to warehouse important information associated with a dreissenid response in the CRB as they update their state plans, which will ultimately by key to any response in an individual state.

A bold new research path to controlling dreissenid mussels throughout entire waterbodies (Dan Molloy, PhD - Molloy & Associates)

This presentation focused on a 3-year project supported by the Bureau of Reclamation to find a parasite that could affect North American dreissenids. 2020 is the second year of the project. Project leaders envision an approach that will work in small lakes as well as the Great Lakes. Currently, treating an entire large water body is too expensive and too environmentally degrading. To be economically feasible, a control agent ideally must be applied only in a small part of the water body, and must be self-perpetuating and self-spreading. The control agent must be live. The biocontrol agent will be a parasite, the most host-specific killing agent. Confidence exists there is a parasite already existing in nature that could be this future biocontrol agent. There are examples of novel parasites from cousins killing off native species. Researchers are now looking for parasites in an area where cousin Dreissena species live (Balkans and Turkey). In 2019, experiments succeeded in transmitting all 5 five species of ciliate parasites present in a cousin species into our *Dreissena polymorpha*. Plans for 2020 focus on collecting more mussels and their parasites from Turkey as well as finding additional resources to implement the project.

Flash Partner Updates

- **Allen Pleus (Washington Department of Fish and Wildlife**) – The agency shared a video they produced as a result of their most recent rapid response exercise in Washington – 2019 Lake Roosevelt. The Bureau of Reclamation funded production of the video. Washington is planning an exercise on the west side of the state in the near future.
    - 2019 WID boat inspection program
        - 2 stations in Spokane on I-90 and Plymouth on I-395.
        - 559 check station days, 32,502 boats inspected -18 watercraft with mussels.

  Washington experienced a budget setback - $240,000 budget reduction for FY19-20 budget, resulting in cancelling year-round stations. All six inspectors were laid off, and both check stations closed down November 15. Matching WRDA funds were secured because the decontamination unit was funded with state funds – as a result, the program will have $10K more once WRDA is signed (versus having a $240,000 budget deficit). In 2021, WDFW is seeking a permanent source of funding, likely through a legislative package. WDFW received a new Bureau of Reclamation grant to operate a new station in 2021. A new regulation was passed in 2019 that makes it an infraction for failing to stop at mandatory AIS check station; enforcement can now write tickets. Prior to this, WDFW could only cite/charge for a gross misdemeanor.

- **Rick Boatner (Oregon Department of Fish and Wildlife)**
    - 2019 WID summary
        - 6 stations open, completed 26,000 inspections, intercepted 16 boats with QZ mussels and 387 boats with other biofouling. Most boats originated in Lake Powell and Great Lakes. No Lake Mead boats were intercepted this year. Boats came from every state in the union as well as Mexico and Canada.
    - 2020 WID stations
        - November-March (600 inspections and intercepted 3 kayaks – open entire year). Gold Beach, Klamath and Lakeview will open up the end of April.

Difficulty finding employees at Umatilla – down to one person August-October.

- **Glenn Dolphin (Oregon State Marine Board)** – Pull the Plug is now mandatory in Oregon. New law enforcement is now in place for mandatory stopping at a WID station. A Bureau of Reclamation grant was received to increase enforcement monitoring of WID stations.

- **Nic Zurfluh (Idaho Department of Agriculture)** – 118,000 inspections, 45 mussel fouled watercraft, 20 inspection stations, 6 roving inspection crews. Inspection station cooperators and partnerships are contributing to program maintenance and expansion. 2019 was the first year that Idaho has had law enforcement support at each check station. Online WID data dashboard displays information in real-time.

- **Craig McLane (Montana Fish, Wildlife & Parks)** – More than 113,00 boats were inspected in 2019 (including all contract stations and partners). A total of 16 mussel-fouled boats were intercepted. Canyon Ferry delisting caused the four decontamination stations there to be relocated to other places. There will be several roving stations. Stations will be operated similarly in 2020. Stations will open up March 15. Montana is working on improving quality control, such as roving site leads (another level beyond supervisors).

- **Lori Curtis (Upper Columbia Conservation Commission)** – UC3 added 5 new seats to the Commission to expand representation to a larger geographic area. Four new ex-officio members (2 Democrats and 2 Republicans). UC3 launched a marina boat shop/fly shop/business owner project to do an inventory of all water recreation-based businesses to assess knowledge of AIS and to expand their knowledge so that they pass that knowledge on to clientele. The project was not finished in 2019, but it will continue in 2020 through the Missoula Weed District. UC3 received a Bureau of Reclamation grant for the Upper Columbia Lakes Network to monitor additional water bodies in Montana. There were 2 trainings in 2019, and an additional 2 trainings in 2020. There is a new website (uc3.mt.gov), and there is an increase in operating funds to $40,000 annually.

- **TyRee Lee (Shoshone-Paiute Tribes)** – A boat wash station exists on highway 51. A total of 351 inspections in 2019, with 10 decontaminations.

- **Martina Beck (British Columbia)** – There were 12 inspection stations in British Columbia in 2019 (similar to 2018). Stations are running at peak operations from May-September, with fewer hours during shoulder season. A total of 52,000 inspections were conducted; 1,300 were high risk. British Columbia WID inspectors intercepted 22 mussel-fouled boats; 16 of the mussel-fouled boats came from Ontario (from the east). Kilo and Major and 2 german shepherds trained in multi-purpose detections. A total of 83% compliance rates at WID stations (a $375 fine for failing to stop). In 2019, a total of 116 violation tickets were issued. Staff are anticipating similar levels of operation in 2020.

Identification of gaps in hatchery practices for AIS introduction - Craig McLane, MT Fish Wildlife & Parks

Gaps exist in hatchery practices that may facilitate the spread of aquatic invasive species. Current MT FWP protocols include annual inspection of all commercial and government hatcheries in which the effluent area is typically sampled. However, the inside of facilities is not routinely sampled, there are biosecurity issues associated with entering the property, the intensity/purpose of the hatchery inspection is not always clear, and there is limited control of inspections outside of Montana. In 2019, New Zealand mudsnails were detected in the Bitterroot Fish Hatchery. Regional issues include no regional inspection SOPs, no consistent inspections in some situations, and there are differences in the cost of watercraft inspection versus hatchery inspections and pond inspections. eDNA is a potential tool in a closed system and in private facilities. There is a proliferation of private ponds in Montana, many of which are stocked with fish produced outside of Montana or from private hatcheries within Montana. Since 2014, 4 private hatcheries were quarantined (whirling disease, e.g.), and 2 of the 4 hatcheries were closed because of the cost to eliminate risks, or because the hatchery chose not to perform testing for parasites. The demand for private fish for pond owners is great, causing people to go outside the state because the six private hatcheries in Montana cannot meet the demand.

Gaps and issues:

- Inspection inside facilities
- Standard SOPs across region
- Can eDNA serve a role?
- Limited fish supply in-state
- Importation from out-of-state
- Private ponds driving imports

Legal Requirements for AIS Biosecurity at Fish Hatcheries - Stephanie Otts, National Sea Grant Law Center

NSGLC received funding from FWS Region 6 to investigate the extent to which state law requires or encourages implementation of BMPs for AIS biosecurity at fish hatcheries. Analysis was limited to the eight states in the Mountain-Prairie Region. Methods included inventorying laws, regulations, and policies related to fish hatcheries in the eight states, reviewing scientific and grey literature to identify BMPs for AIS biosecurity measures, and analyzing state law for provisions that encourage or require implementation of identified BMPs. Best management practices identified from the literature review include hazard identification/risk assessment, biosecurity plan, property management, facility siting and design, treatment of intake and discharge water, inspection and certification requirements, isolation and quarantine, disinfection of fish eggs, decontamination of trucks and equipment, staff training, recordkeeping and reporting requirements. Stephanie highlighted a few of the BMPs in her presentation including:

- **Hazard identification and risk assessment** – Kansas is the only state that mentions a risk assessment in law, but not geared to AIS. FWS policy (750 FW1) requires Fish and Aquatic Conservation Program staff to engage in HACCP planning.

- **Property management** – Measures that restrict access to hatchery staff and approved visitors. Some states have provisions prohibiting visitors from bringing fishing gear or entering sensitive fish health areas, but no provisions found directly discussing specific property management measures.
- **Facility siting and design** – Some requirements exist in federal law, but they are not specific to AIS. There are several examples in state law, such as restrictions on siting within 100-year floodplains and requirement that screens can be installed on pipes.
- **Treatment of intake and discharge waters** – Primarily regulated under the National Pollutant Discharge Elimination System (NPDES) permit program administered by EPA or delegated states. CAAP regulations do not include any specific AIS controls. Most states incorporate these provisions into state law by referencing federal regulations.
- **Inspection and Certification Requirements** – States address this more than any other BMP, however most do not require inspection and certification specifically for AIS, but rather for pathogen and signs of disease. FWS R6 has an internal policy requiring hatcheries be inspected.
- **Decontamination of trucks and equipment** – No specific provisions were found, however, all states in the region have enacted some type of legal requirement for inspection and decontamination of boats, trailers, and related equipment. In some states, hatchery equipment would likely fall into the "conveyance" definition as define by the state. Hatchery operations may fall outside the scope of some of these WID requirements.

VIDA Update - Allen Pleus, WA Dept of Fish and Wildlife

Concepts states are working on:

- Setting environmental standards for ballast water discharge – that data is not being provided to the states so the states cannot assess efficacy. Currently, all of the data is deemed proprietary. This information is needed to set a new standard.
- Defining biofouling – EPA is currently looking only at the in-water cleaning. Some of these vessels have toxic anti-fouling paints.

VIDA is in early stages of implementation. EPA is drafting environmental standards, which would initiate additional discussions.

The new law is to prevent the states from enacting standards that are more stringent than the federal standard.

USACE WRDA reimbursement projects - Marvin Shutters, US Army Corps of Engineers

Marvin provided the update on the history of WRDA. In 2019, WID was support at a $4.8 million level, $719,983 for monitoring. It is estimated $5 million will be provided for WID in 2020, with about $700,00 for monitoring. There is a geographic expansion of this project, including the Upper Colorado, Upper Missouri, and South Platte with an expected completion of their letter reports in September of 2020. FY2020 appropriation will be $15 million, with a total of $6.5 million for the

CRB). In terms of flowering rush, an agreement would be developed with Pacific States once a letter report is complete.

Lake Tahoe Action Agenda - Lisa DeBruyckere, CRS and Dennis Zabaglo, Tahoe Regional Planning Agency

The 2019, 10-year, $74 million Lake Tahoe Action Agenda was presented. The agenda will be implemented in 2021 through two five-year phases that seek to reduce aquatic invasive plants throughout the region while addressing AIS in the Tahoe Keys. The Agenda can be found here.

Flowering Rush in Lake Roosevelt - Jen Parsons, WA Dept of Ecology

There was a new find of flowering rush in Lake Roosevelt in August of 2019. The assumption is that the plant came out of the Spokane portion of Lake Roosevelt. Treatment – if everything comes together, in the spring, it can be treated with bare-ground herbicide, and would like to try sniffer dogs and hot water/steam/flame. In the summer, they would like to try covering and hand pulling. Survey and monitoring will occur. Potential funding sources are being explored. Next conference call is February 3 at 10am – contact Jen Parsons and she'll add you to the email distribution list.

Columbia Basin CWMA Flowering Rush Next Steps - Jen Parsons, WA Dept of Ecology

The Washington Invasive Species Council applied for and received a National Fish and Wildlife Foundation grant to develop a Columbia Basin Cooperative Weed Management Area. A consultant was hired, governance issues were addressed, and a management plan was written. A total of 80 people attended a summit in 2018. States and provinces are asked to provide their observation data annually.

Flowering rush control techniques research – Damian Walter, USACE

More than 64 river miles in McNary Reservoir and more than 242 miles of shoreline have flowering rush. There are four research projects: a sediment growth study (focused on estimating where flowering rush will appear), induction in response to various herbivory (simulated, actual, and chemical treatments), field trials of bubble and solid curtains and chemical treatments (estimating the impact of water exchange rate based on different types of bubble and solid curtains), and biological studies (ploidy plant competition study in submerged and emergent trials).

Legislative Update – Stephen Phillips, PSMFC

Aquatic Invasive Species: $40,482,000 [FY 2019 $21,748,000]

- States AIS plans: $2,834,000 ($2,000,000)
- National Invasive Species Act (NISA): $1,566,000 ($1,623,000)
- Prevent the spread of Q/Z mussels in the West: $3,000,000 ($2,000,000)
- Lake Tahoe: $4,088,000 ($3,088,000)

- $1,011,000 is for Great Lakes Sea Lamprey administration costs
- Controlling Asian carp $25,000,000 is for Asian carp (including not less than $2,500,000 for contract fishing

Other Agencies FY 2020 Report Language

BOR [Energy/Water Budget]

House: Aquatic Nuisance Species — No Q/Z specific mention [Note: FY 2018 increase of $4.3 million for mussels]. Additional funding provided under Environmental Restoration or Compliance and Water Conservation and Delivery may be used for growing threat of AIS Senate: No Q/Z report language

NPS: $3,000,000 for quagga and zebra mussel containment, prevention, and enforcement. (FY 2019 $3 million)

Bureau of Indian Affairs: $9,773,000 for Invasive Species; (FY 2019 $5.77 million)

Working Capital Fund:

House: Within available funds the Committee directs that $1,2000,000 be available for the Invasive Species Council.

Senate: $0?

United States Geological Survey

The recommendation provides $23,330,000 for Invasive Species which includes $1,720,000 for Chronic Wasting Disease and a total of $10,620,000 for Asian carp research, of which $3,000,000 is for research on grass carp and the additional increase is to be used in accordance with the specifications outlined in Senate Report 116-123. The agreement encourages the Survey to prioritize research, detection, and response efforts on invasive species with extremely high impacts on public lands, such as the Burmese Python, and to examine expanding their efforts to include Lionfish. The recommendation includes $10,000,000 for the Water Resources Research Institutes, of which $1,000,000 is for research on aquatic invasive species in the Upper Mississippi River region to address a critical need for multi-state research.

USFWS/DOI Report Tidbits Report Language (Q/Z)

House: Wildlife and Habitat Management.—The recommendation includes $239,437,000, an increase of $4,970,000 above the enacted level and equal to the budget request. The Committee supports the funding increase included in the budget request for Invasive Species Strike Teams and the reduction proposed for Inventory and Monitoring.

Senate Multi-Agency Directives, EDRR: Within 180 days of the date of enactment of this act, the agencies shall provide the Committee with a report on their efforts to prioritize EDRR as part of their expected program of work for fiscal year 2020

USFWS Non-Intrusive Zebra Mussel Elimination.—The Committee directs the Service to pursue technologies to aid in the elimination, mitigation, or control of aquatic nuisance species and invasive

species, with an emphasis on methods that do not result in the addition of chemical agents to the ecosystem and that do not result in harmful secondary byproducts, such as algal blooms, taste and odor concerns, and toxic by-products. Of particular interest are those technologies that can be implemented without extensive infrastructure modification and those that show immediate economic benefit as compared to the currently used methods of control, such as periodic physical removal and ongoing or periodic chemical treatment. [Similar language in House]

Senate USFWS, Invasive Species.—The Committee is aware that work is ongoing in several regions to address the threats posed by aquatic invasive species and directs the Service to continue to make available competitive grant funding for projects to eliminate these destructive, non-native species. USFWS Prioritization of Combatting Invasive Plant and Animal Species.— Invasive plant and animal species are a pervasive problem affecting communities across the Nation. Invasives, such as the Asian carp, quagga and zebra mussels, emerald ash borer, Eurasian milfoil, elodea, and the Hemlock Woolly Adelgid threaten our natural resources. The Committee makes several increases to programs designed to combat invasive species before and after they become a problem. The Committee encourages the Service to support research, monitoring, and mitigation efforts, as well as efforts to disseminate such work, in all regions.

FY 2020 ENERGY AND WATER FEDERAL APPROPRIATIONS " WRDA" -- U.S. Army Corps Engineers Aquatic Plant Control Program (WRDA Directed)

Watercraft Inspection Stations: $15,000,000 (FY 2019 $5 Million)

Monitoring: $3,000,000 (FY 2019 $1 million)

Of the funding recommended for the Aquatic Plant Control Program: $1,000,000 shall be for activities for monitoring, surveys, and control of flowering rush

OTHER AIS RELATED LEGISLATION

https://www.westernais.org/regulations

Scroll down to -- US AIS - Related Federal Legislation

- 115th Congress AIS Federal Legislation (last updated 14 January 2019, Final)
- 116th Congress AIS Federal Legislation (updated 26 September 2019)

PASSED LEGISLATION

106th Congress S. 47 John D. Dingell, Jr. Conservation, Management, and Recreation Act Signed: 03/12/2019

TITLE VII—WILDLIFE HABITAT AND CONSERVATION "SEC. 10. Protection of water, oceans, coasts, and wildlife from invasive species. "(c) Strategic plan.— "(1) IN GENERAL.—Each Secretary concerned shall develop a strategic plan for the implementation of the invasive species program to achieve, to the maximum extent practicable, a substantive annual net reduction of invasive species populations or infested acreage on land or water managed by the Secretary concerned. "(g) Allocation of funding. the Secretary concerned shall use not less than 75 percent for on-the-ground control and

management of invasive species, may use not more than 15 percent for investigations, development activities, and outreach and public awareness efforts to address invasive species control and management needs. Not more than 10 percent may be used for administrative costs (4) Theodore Roosevelt Genius Prize For Management Of Invasive Species.

Implementation S. 47, March 27, 2019, Sec. 4 : John D. Dingell, Jr. Conservation, Management, and Recreation Act Task Force." A task force on the John D. Dingell, Jr. Conservation, Management, and Recreation Act is hereby established in the Department. The Associate Deputy Secretary shall serve as Chair and the Assistant Secretary for Lands and Minerals Management, Assistant Secretary for Fish and Wildlife and Parks, Assistant Secretary for Water and Science, Assistant Secretary for Indian Affairs, Assistant Secretary for Policy, Management, and Budget, Assistant Secretary for Insular and International Areas, and the Solicitor Implementation Plan. Within 60 days of the date of this Order, members of the Task Force will submit an Implementation Plan for each actionable provision of the bill to the Chair.

S.2975 - Stop the Spread of Invasive Mussels Act of 2019 Sen. Bennet, Michael F. [D-CO] (Introduced 12/04/2019)

Section 2: Bureau of Reclamation Assistance This section authorizes the Secretary of the Interior, through the Commissioner of Reclamation, to provide financial assistance to purchase, establish, operate, or maintain watercraft inspection and decontamination stations to prevent the spread of aquatic invasive species.

Section 3: Watercraft Inspection and Decontamination Authority: This section provides each federal agency that is a member of the Aquatic Nuisance Species (ANS) Task Force with the authority to inspect and decontaminate watercraft and, as necessary, impound, quarantine, or otherwise prevent entry to limit the movement of aquatic invasive species into and out of U.S. waters.

Section 4: Technical Corrections: Fixes "**Arizona**" issue -- makes the Arkansas River Basin eligible

AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $25,000,000 for fiscal year 2020 and each fiscal year thereafter

(2) MANDATORY INSPECTION/DECONTAMINATION.—To limit the movement of aquatic invasive species (as defined in section 2(a)) into or out of the waters of the United States, each task force agency may, as appropriate— (A) conduct mandatory inspections and de-contamination of watercraft.

Recovering America's Wildlife Act of 2019 (H.R. 3742) Rep. Dingell, Debbie [D-MI-12] (Introduced 07/12/2019)

TITLE I—WILDLIFE CONSERVATION AND RESTORATION 9SEC. 101. WILDLIFE CONSERVATION AND RESTORATION 10SUBACCOUNT. 11(a) IN GENERAL.— Section 3 of the Pittman-Robertson Wildlife Restoration Act (16 U.S.C. 669b) is amended in subsection (c)—

"(1) ESTABLISHMENT OF SUBACCOUNT.— "(C) DEPOSITS INTO SUBACCOUNT.—Beginning in fiscal year 2020, the Secretary of the Treasury shall transfer $1,300,000,000 from the general fund of the treasury each fiscal year to the fund for deposit in the Subaccount. "(4) USE OF FUNDS.—Funds apportioned from the Subaccount—

"(F) may be used to manage, control, and prevent invasive and nuisance species, disease, and other risks to species of greatest conservation need; and

Out of House Committee on Natural Resources 12/5/19 – vote 26-6.

S. 3051 America's Conservation Enhancement Act Sen. Barrasso, John [R-WY] (Introduced 12/12/2019)

The bill combines several legislative provisions codifying the National Fish Habitat Partnership program, reauthorization of the North American Wetlands Conservation Fund, the establishment of a task force to combat the rapidly growing threat of chronic wasting disease etc.

SEC. 105. INVASIVE SPECIES.

Section 10 of the Fish and Wildlife Coordination Act, (16 U.S.C. 666c–1) is amended—

''(p) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section for each of fiscal years 2021 through 2025— ''(1) $2,500,000 to the Secretary of the Army, acting through the Chief of Engineers; and ''(2) $2,500,000 to the Secretary of the Interior.''

HOUSE H.R.925 awaits to be scheduled by House Leadership for a floor vote.

<u>2020 Legislative Priorities</u>

Bennett Bill

WRDA Reauthorization

2018 WRDA Reauthorization (The Expansion)

> "(A) WATERCRAFT INSPECTION STATIONS.—In carrying out this section, the Secretary shall establish (as applicable), operate, and maintain new or existing watercraft inspection stations—
>
> "(i) to protect the Columbia River Basin;
>
> "(ii) to protect the Upper Missouri River Basin; and
>
> "(iii) to protect the Upper Colorado River Basin and the South Platte and **Arizona** River Basins.

SEC. 1170. WATERCRAFT INSPECTION STATIONS. "(1) IN GENERAL.—There is authorized to be appropriated to carry out this section $110,000,000 for each fiscal year, of which—

> "(A) $30,000,000 shall be made available to carry out subsection (d)(1)(A)(i);
>
> "(B) $30,000,000 shall be made available to carry out subsection (d)(1)(A)(ii); and
>
> "(C) $30,000,000 shall be made available to carry out subsection (d)(1)(A)(iii).

CRB Language in WRDA

WRDA Expansion – Next Steps Corps/States/Partners working on a western strategy for best use of the WRDA WI funds New expanded basin projects will not come on line until "later" in 2020 For CRB, opportunity to gain additional "defense" to the East 2001 2001: H.R. 2732 (Baird, WA): Stop Westward Aquatic Threats Act '(A) work with States to establish check stations on highways and waterways that cross the 100th meridian, and require that all commercial vessels moving westward across the meridian stop and be checked for zebra mussels and aquatic weeds at such check stations.

Update from Western Governors Association - Bill Whitacre, Western Governors Association

From June of 2018 through June of 2019, an initiative was developed to address emerging invasive species issues nationally. The outcome is that the Western Governors developed 21 new policies and a report on the initiative that had 35 recommendations. The top item in the policy resolution was the call for a Western Invasive Species Council is to enhance coordination among existing states and bodies and identify cross-boundary and cross-jurisdictional challenges. The Council would serve an advisory role to the Governors. The Western Invasive Species Council had its first meeting in November of 2019 – every state nominates one member (Governor appointed only). There are 16 states participating. A transboundary feral hog management project is included in their initiatives.

Regional and National Updates - Hilary Smith, Department of the Interior; Heidi McMaster, US Bureau of Reclamation; Joanne Grady/Theresa Thom, US Fish and Wildlife Service

Hilary Smith, Department of the Interior

Zebra and Quagga Mussel Update - The final report of the Safeguarding the West from Invasive Species Initiative will be produced in 2020, and will incorporate information from the Columbia River Basin, Monitoring Forum, Endangered Species Act manual, and Building Consensus in the West, among other activities DOI agencies have been involved in with others.

Support for Rapid Response - The Department of the Interior is discussing ways to provide support to the Incident Command System to address invasive mussels in western waters as part of their Congressional direction in 2019. Staff are working on a Memorandum of Understanding among USDA, USFS, and USACE to identify opportunities to better support response capabilities. They reviewed information the CRB 100th Meridian published relative to lessons learned from response exercises, and seek to contribute to expediting environmental compliance, data sharing, and other activities.

Invasive Species Strategic Plan – As directed by the John D. Dingell Act of 2019, DOI is developing a DOI-wide invasive species strategic plan. In November 2019, DOI hosted listening sessions for more than 200 people to inform the development of the plan. They are now drafting the strategic plan, with an aim to be completed in FY20 for implementation starting in FY21.

Categorical Exclusions (NEPA) - DOI staff are continuing to work on the development of potential categorical exclusions for rapid response and control and management activities. This includes reviewing NEPA documentation to determine what actions may be appropriate to include that would

not have significant impacts on the environment. This project will include public comment periods and posting in the Federal Register.

Heidi McMaster, US Bureau of Reclamation

In FY19, there were 20 projects across BOR, 8 (projects in the Pacific Northwest) with a push to fund projects for early detection, prevention, and outreach. In FY20, there will be a reduction in project funding - 1 PNW project with Eric Anderson: Cle Elum inspection station.

Joanne Grady/Theresa Thom- USFWS

The new director of the US Fish and Wildlife Service is Aurelia Skipworth.

Funding Updates

- FY19 – QZAP/100thM
  - PSMFC (CRB Team, rapid response, westernais.org, sports show)
  - Invasive Species Action Network – Don't Let it Loose
  - National Sea Grant Law Center (NSGLC) – hatchery bio-security report, jurisdictional authorities

- Internal Funding:
  - Flathead Lake Biological Station
  - NSGLC and Creative Resource Strategies
  - HACCP trainings - 22 classes planned for the next 2 years (mostly in Western US). Request your HACCP training today!

- FY20 – QZAP/100thM
  - ~100k
  - State plans will see an increase in funds

Boat decontamination locator on Google next steps - Elizabeth Brown, Colorado Parks and Wildlife

This concept originated with a request from the Lake Mead Recreation Association re: how to get boaters leaving Mead to a boat decontamination station. Existing options include the Western AIS Map, Private WISC Map, Printed brochure, or the lists managed by agencies online. The ideal scenario is the use of a keyword search to provide boaters with the information, but there isn't much support for a new app or new website. Options investigated included data entry input into Google (but most are existing locations listed under an existing name, some are not actual addresses, and desired keywords don't already exist as TAGS in Google). Options for individual actions include WID managers updating the google directory listings so that WID stations show up on the map *if* they are the "owner" of the Google listing to edit it and add "boat inspections" to the listing; For places that don't already "exist" they can create a listing with lat/long; We need standard language. Options for centralized actions include an IT process to embed the PSMFC WID viewer so that locations within show up when searched; Need to use SEO (search engine optimization) so that sites shows up when searched; May need funding to maintain. Next steps include adding features yourself to existing google directory; Talk to your IT /website managers to embed web maps; Do some searches yourself

because there are some that aren't Authorized WID stations. This topic will be discussed at the next WISCE meeting in February 2020.

Lake Chelan Vulnerability and Habitat Suitability Analysis for Aquatic Invasive Species - Toni Pennington, Environmental Science Associates

The lower basin of Lake Chelan is exploding with development - there are 4 seasons of recreation, $647M of direct tourism spending (we know that AIS are considered a big impact to tourism from Great Lakes). Species of concern include QZ mussels, NZMS, pike, flowering rush, and other species. High-risk out-of-state boats are reporting that they are going to Lake Chelan. High-risk boats from instate (places with AIS that aren't in Lake Chelan) report that Lake Chelan is a top 10 destination. Lake Chelan is interested in moving to a Lake Whatcom style boat inspection program. The lake has 5 major boat launches and an estimated 5,000 annual boat launches. In terms of habitat vulnerability, Quagga have higher risk of establishment in lower Ca+ waters than Zebra, Asian clams can respond to Ca+ hot spots, and Lake Chelan has low Ca+ ~7ish but has a few high Ca+ inputs. The USRB Risk Assessment assessed Lake Chelan as moderate risk. The WDFW Risk Assessment → 3x/yr monitoring (highest amount). Conclusions: The lake is high risk because of the number of boats. Question: Do localized environmental conditions affect potential for AIS establishment? Multi-taxa prevention efforts are the ultimate goal. Data gaps and recommendations included expanding monitoring, seeking funding options, conducting multi-taxa surveys, engaging the public using citizen science, hosting a boat inspection station using the Whatcom model, and conducting boater/watercraft surveys.

Columbia Basin collective brainstorm for future CRB Team group actions and activities

- Fish Stocking loopholes – (elevated to WISCE by Tom Woolf, may have something to report out on, add Federal hatcheries)
- Invite Nannette Nelson (economic study for Flathead (economic impact of AIS)
    - Previous meeting with her involved people coming with homework, working through econ. Considerations as a group.
    - (USFWS grant)
- Revisit schools as pathways for AIS introduction
- Continue Monitoring Forums before mtgs (helps with cohesive efforts)
- Don't Let it Loose campaign
- Downstream transport vectors (quarantine boat movement but what happens in flowing water)
    - Good discussion topic but factors affecting veliger transport in fluvial environments are complex (complex flow dynamics, questions about veliger survival in turbulent conditions, etc.). Discouraged back-of-the envelope exercises as they could be very misleading. Warrants a thorough directed effort to be useful. Tim C.
    - Steve B says back of the envelope calculations are good exercises, allows realization that the data isn't there (i.e. how little we know)
- Add summary of EDRR to June Mtg – ID2019 Lessons Learned and OR2020

Next CRB Team Meeting

The next meeting of the CRB will be in June in Montana.

Monitoring Forum

Agenda

Columbia Basin Dreissenid Mussel Monitoring Forum		
Introductions	All	10:00-10:05
Monitoring updates – 2019 results and 2020 plans		
Idaho	Nic Zurfluh	10:05-10:15
Oregon	Martyne Reesman	10:15-10:25
Montana	Craig McLane	10:25-10:35
Washington	Jesse Shultz	10:35-10:45
British Columbia	Martina Beck	10:45-10:55
Portland State University	Rich Miller	10:55-11:05
Washington State University	Steve Bollens	11:05-11:15
Army Corps of Engineers	Damian Walter	11:15-11:25
Bureau of Reclamation	Heidi McMasters	11:25-11:35
Update on Monitoring Map	Robyn Draheim, PSMFC	11:35-11:45
Incorporating monetary/non-monetary valuation of natural resources into a regional risk assessment model	Tim Counihan, USGS	11:45-11:55
Wrap up and next steps		11:55-12:00

State Reports

IDAHO – Nic Zurfluh

- ID is split into 4 regions for better management of the field staff doing monitoring – monitoring tasks include noxious weeds as well as AIS: adult mussels, dreissenid veligers, and aquatic plants.
- Monitoring gap: Salmon River/ Central ID (accessibility issues)
- ID DEQ also does substrate surveys, IDA also has assistance from partners (ID Power, Tribes, Counties, etc.)
- Requires 2 week turn around on all sample processing
- ID has a water body "risk" categorization (critical [repeat sampling/season], moderate, etc.) Criteria: Ca+, multiple uses, size, boat ramps, (note: they have expanded their program generally upping the number of samples and number of sampling events)
- Anticipate 2020 sampling will be similar

? Hurdles: -> finding great seasonal field staff, all agencies compete for same pool of candidates

Funding looks good – WRDA $ allowed for 50:50 match and funding for these sorts of projects in ID seems stable

Oregon – Rick Boater

- Several groups already sample in OR: BOR, PSU → ODFW's sampling strategy for 2019 was to look for places where sampling was missing from other coverage
- 2019 sampling: Ca+ data collected as well (records were old) -> some surprises (i.e. some unexpected pockets of higher Ca+ in SW OR), unpredictable weather, low water made some sampling tricky, algae blooms and invasive crayfish
- 44 veliger samples from 7 water bodies,
- Funded by WRDA with match from OR non-game wildlife tax return revenue
- 2020 – will again wait and see where others are monitoring

? hurdles – timing: late summer water temperatures for veliger collection are at peak boating season)

Montana – Craig (MT AIS Early Detection and Monitoring Coordinator)

- Risk Assessment Metrics (data not always present for scoring 1-4)
- Habitat- T, pH, Hardness, Ca+, Conductivity, DO, Substrate presence
- Social: Angler days, Mussel proximity, Rec boat use, Waterbody type, watershed position rank
- All Taxa Surveys
- New finds – Corbicula, Curly leaf pondweed
- Canyon Ferry – intense monthly sampling (tows, shoreline, dogs, delisting will be complete in Feb 2020
- Tiber Reservoir - surveys continuing
- 2020 – similar plans will more resources freed up with Canyon delisting (low priority waterbodies change out on 3 year-ish cycles)

? How did corbicula arrive (irrigation canal investigated and discarded, probably rec boat, looking at control options but a state park and super popular fishing location (may be able to draw down and dry out? Tie to park and fishery improvement options)

? Hurdles: staff issues similar to ID

Washington – Jesse

- WDFW, PUDs, Spokane Tribe (more partners and more sampling budget WRDA)
- Risk assessment scoring matrix ~ 22 metrics with 0-4 points per metric – see slide presentation (based on BC's). Score determines monitoring frequency (none, 1x3yr, 1X2yr, 1x1yr, 2x1yr, 3x1yr)
- 119 waterbodies with 313 sites sampled
- NZMS found on a substrate (in a known waterbody but first WDFW find on a substrate)
- Salinity measures -> North Puget Sound high risk rivers/river mouths (but the marine influence led to marine veligers) so to adjust the matrix they will add salinity

- eDNA – WDFW (Q/Z, NZMS and N. Pike) Douglas PUD (Q/Z and N Pike)
- Summary: 2019 June – Nov, 2 person team w/ boat, often 1 person teams in western. Wash. eDNA sampling is expensive (analysis, eq. 2 filters/site ($15ea), etc.) and creates a lot of waste!
- 2020: May – Oct, 2 person teams only, eDNA only sampled at highest risk sites, increase other sampling to compensate, Lake Chelan dissolved Ca+ study proposal

BC – Martina Beck

- 892 samples – all negative, lots of partners, with Ministry paying for and doing analyses
- Currently updating their monitoring protocols for 2020
- Risk matrix for probability of intro/establishment -> external groups would fill out matrix themselves but lack of data skewed the priority results so BC changed how they do prioritization of site samples. Primarily Ca+, and watercraft inspection data for high use from potentially infested boats. Will probably make up for decreased plankton tows at some WB but increasing substrates
- Field testing eDNA options with a BC university
- Challenges with handheld Ca+ measures so moving to lab-based analyses

PSU – Rich Miller

- Project based sampling, WRDA and BOR using Wells et al. risk assessment, and opportunistic sampling
- Added some Ca+ assessment, mostly matched with Wells et al. paper but noted that some reservoirs stood out
- **Hurdles** – timing of receipt of funding (after drawdown at some BOR sites)
- Data collection using Survey 123 vs field data sheets (inaccuracies with data entry) provide forms and training to ACE partners (move to Survey123 where possible)
- 2020 – in house eDNA tech is graduating! Need to find a lab for processing eDNA samples, will propose 2020 sampling plan for WRDA funds but without eDNA – note: match for WRDA is a hard lift for PSU/Center for Lakes and Reservoirs

WSU – Steve Bollens

- Ca+ collection values consistent with Wells et al. , contoured with USGS data and potentially higher Ca+ risk but with the caveat that data are limited, WSU has new WQ data lab with fancy tech and could process a lot more samples for Ca+
- **? hurdles** (nothing but funding otherwise "well-oiled machine"
- 2020: slight expansion of frequency and up/downstream of 2019 sites
- SB Proposed this thought experiment: – where is the water that we are sampling coming from? (10s of m to 100s of KM upstream) -> keep in mind when designing sampling
- ? from Anthony P. re residence times, etc.

ACE – Damian Walter

- Work with PSU, routine locations plankton tows every 2 weeks

- Hurdles, budget and funding (BPA based match needed) and personnel (stable for 2020 but looking questionable going forward (because of BPA budget cuts)

BoR – Heidi McMasters,

- 2019 188 plankton tows, 29 reservoirs, all analyzed in house in Boise office, with some sent to Denver lab for eDNA work
- 2020 – looking to increase via Risk Assessment score (developed by Heidi for vulnerability assessments 0-100 score)

Mapping – Robyn Draheim

- Maps, both public facing and searchable password protected data sets are still a work in progress
- Comments: – Nic Z appreciates the public facing maps!

Tim Counihan – Risk Mapping -> Interactive Decision Support Tool

- Incorporates habitat and propagule suitability,
- Next: monetary and non-monetary valuation of natural resources
- Think about how we do this valuation, what's important to the state?
- (some states have some of these built into their risk matrices)

Next webinar will discuss ways to add monetary/non-monetary valuation of waterbodies to risk assessment