

AQUATIC NUISANCE SPECIES TASK FORCE: MINUTES FROM THE DECEMBER 2020 MEETING

December 8 – 10, 2020; Virtual Conference

On December 8-10, 2020, the Aquatic Nuisance Species (ANS) Task Force held a three-day virtual meeting using the Microsoft Teams platform and an audio-conference line. Action items from the meeting are listed below, followed by a summary of the meeting.

Decisional Items

The ANS Task Force made the following decisions:

- Approved the Colorado Aquatic Invasive Species Management Plan
- Approved the revised Indiana Aquatic Invasive Species Management Plan

New Action Items

The ANS Task Force assigned the following action items:

- ANS Task Force will review the draft U.S. Coast Guard Report to Congress: date TBD.
- The Bylaws Work Group will refine the draft ANS Task Force Bylaws based on this meeting's discussion. A new draft will be distributed to members for discussion at next ANS Task Force meeting.
- ANS Task Force will review the Control Plan Assessment and Draft Guidance documents by February 26, 2021, and provide comments to the ANS Task Force Executive Secretary. The Control Subcommittee will review the comments and refine the Control Plan Assessment and Draft Guidance documents for consideration at the next ANS Task Force meeting.
- The Subcommittees will refine the FY21 Work plans and submit them to the Executive Secretary by January 15, 2021. The Executive Secretary will send the revised draft Subcommittee work plans to the ANS Task Force members and regional panels for a final review, with any comments due to the Executive Secretary by January 29, 2021. If no comments are received, the work plans will be considered approved.

Tuesday, December 8, 2020

1. Welcome

Jennifer Lukens (National Oceanic and Atmospheric Administration, NOAA) introduced herself, welcomed the attendees and thanked them for attending virtually. Lukens reviewed the agenda, which was distributed to registered participants and posted on the ANS Task Force website. Topics on the agenda included updates from interagency invasive species organizations as well as on the USGS Non-Indigenous Aquatic Species database, Vessel Incidental Discharge Act, Quagga Zebra Action Plan for Western US Waters (QZAP), and Asian carp management. There was also a session describing progress in the development of a National Early Detection Rapid Response framework, a discussion on the draft ANS Task Force bylaws, and review of the progress reports and work plans prepared by the subcommittees. In addition, two state ANS management plans will be discussed and voted on for approval.

David Hoskins (U.S. Fish and Wildlife Service, USFWS) introduced himself. He recognized the ANS Task Force members who volunteer their time from their regular jobs to move Task Force priorities forward, and our outstanding regional panels and subcommittee members who have also dedicated hours

of personal time and expertise to ensure that the meeting action items and work plans are progressing. Susan Pasko (USFWS, ANS Task Force Executive Secretary) introduced herself and went over some logistics. She also announced there would be a public comment period at the end of each day.

Self Introductions

David Hoskins announced that since this is a virtual meeting we will not ask each individual to introduce themselves. The list of participants can be viewed within Microsoft Teams, which will be downloaded and recorded in the meeting minutes. A roll call was taken of ANS Task Force membership. An audio-only option was made available for this meeting. Since individuals using only the audio conference line were not listed among the Teams web-participants, Hoskins asked these individuals to introduce themselves. The complete list of attendees follows.

Name	Organization
Aaron Martin	U.S. Fish and Wildlife Service
Adrienne Juby	Pyramid Lake Paiute Tribe
Al Cofrancesco	U.S Army Corps of Engineers (retired)
Alanna Keating	BoatUS Foundation
Allison Zach	Nebraska Invasive Species Program
Amy McGovern	U.S. Fish and Wildlife Service
Anna James	Adams County Land and Water
Barak Shemai	U.S. Fish and Wildlife Service
Belle Bergner	North American Invasive Species Management Association
Brian Goodwin	American Boat and Yacht Council
Brian Schoenung	Mississippi Interstate Cooperative Resources Association
Carolyn Junemann	U.S. Department of Transportation, Maritime Administration
Cecelia Weibert	Great Lakes Commission
Cesar Blanco	U.S. Fish and Wildlife Service
Chris Page	South Carolina Department of Natural Resources
Chris Steffen	Kansas Department of Wildlife, Parks, and Tourism
Christine A. Dudley	Rhode Island Department of Environmental Management
Christine Lipsky	National Park Service
Christy Martin	UH PCSU-Coordinating Group on Alien Pest Species
Cindy Simpson	North Carolina Wildlife Resources Commission
Cindy Tam	U.S. Geological Survey
Cindy Williams	U.S. Fish and Wildlife Service
Cori Ann Hayer	U.S. Fish and Wildlife Service
Craig Martin	U.S. Fish and Wildlife Service
Curtis Tackett	Oklahoma Department of Wildlife Conservation
Dane Huinker	Wildlife Forever
Danielle Chesky	Environment and Energy Section, Embassy of Canada
David Dickerson	National Marine Manufacturers Association
David Hoskins	U.S. Fish and Wildlife Service
David Marron	American Waterways Operators
David Wong	Massachusetts Department of Environmental Protection
Daydre Roser	California Department of Fish and Wildlife
Deborah Kornblut	U.S. Fish and Wildlife Service
Dennis Riecke	Mississippi Dept. of Wildlife, Fisheries, & Parks
Dennis Zabaglo	Tahoe Regional Planning Agency
Dolores Savignano	U.S. Fish and Wildlife Service
Dominique Norton	California Department of Fish and Wildlife

Don MacLean	U.S. Fish and Wildlife Service
Doug Jensen	University of Minnesota Sea Grant
Edna J. Stetzar	DNREC-Division of Fish and Wildlife
Elizabeth Brown	North American Invasive Species Management Association
Eric Fischer	Indiana Department of Natural Resources
Erika Jensen	Great Lakes Commission
Eugene Braig	Ohio State University
Geno Evans	National Aquaculture Association
Greg Conover	U.S. Fish and Wildlife Service
Greg Hitzroth	Illinois Natural History Survey and Illinois-Indiana Sea Grant
Heather Desko	New Jersey Water Supply Authority
Hilary Smith	U.S. Department of the Interior
Ian Pfungsten	U.S. Geological Survey
Jack Faulk	U.S. Environmental Protection Agency
Jacob Bradford	Bureau of Reclamation
James Ballard	Gulf States Marine Fisheries Commission
Jason Ferrante	U.S. Geological Survey
Jeanette Huber	South Carolina Department of Natural Resources
Jennifer Lukens	National Oceanic and Atmospheric Administration
Jennifer Poirer	U.S. Fish and Wildlife Service
Jeremy Crossland	U.S. Army Corps of Engineers
Jill Sims	National Marine Manufacturers Association
Jim Page	Georgia Department of Natural Resources
Jimmy Barnett	Arkansas Game and Fish Commission
Joanne Grady	U.S. Fish & Wildlife Service
John Darling	U.S. Environmental Protection Agency
John Morris	U.S. Coast Guard
John Navarro	Ohio Department of Natural Resources
John Wullschleger	National Park Service
Jolene Trujillo	U.S. Bureau of Reclamation
Josh Leonard	Wyoming Game & Fish Department
Joyce Bolton	USDA/Agricultural Research Service
Karen McDowell	San Francisco Estuary Partnership
Kate Wyman-Grothem	U.S. Fish and Wildlife Service
Kelsey Brantley	National Invasive Species Council (NISC)
Kim Bogenschutz	Iowa Department of Natural Resources
Krista Lutzke	North American Invasive Species Management Association
Kristen Penney Sommers	Florida Fish and Wildlife Conservation Commission
Kristen Sommers	DOI/Bureau of Ocean Energy Management

Kristopher Stahr	Nebraska Game and Parks Commission
Kyle Clonan	New Jersey Water Supply Authority
Laura Sprague	U.S. Fish and Wildlife Service
Leah Elwell	Invasive Species Action Network
Lisa Dlugolecki	U.S. Fish and Wildlife Service
Lisa Vehmas	U.S. Bureau of Reclamation
Lynn Creekmore	USDA, Animal and Plant Health Inspection Service
Maggie Hunter	U.S. Geological Survey
Mark Lewandowski	Maryland Department of Natural Resources
Mark Minton	Smithsonian Environmental Research Center
Marshall Meyers	N Marshall Meyers PLLC
Martha Volkoff	California Department of Fish and Wildlife
Mason Parker	Invasive Species Action Network
Matt Gocklowski	Connecticut Department of Energy and Environmental Protection
Matt Nichol	Colorado Parks and Wildlife
Matthew Neilson	U.S. Geological Survey
Matthew Wallrath	Upper Sugar River Watershed Association
Maureen Ferry	Wisconsin Department of Natural Resources
Maurice Sadowsky	MJSTI Corp.
Meg Modley	Lake Champlain Basin Program
Michael Feagan	Michigan Department of Natural Resources
Michele L Tremblay	Northeast Aquatic Nuisance Species Panel
Mike Buntjer	U.S Fish and Wildlife Service
Mike Ielmini	USDA Forest Service
Mike Ripley	Native American Fish and Wildlife Society/Chippewa Resource Authority
Mike Weimer	U.S. Fish and Wildlife Service
Monica McGarrity	Texas Parks and Wildlife Department
Patrick Kocovsky	U.S. Geological Survey
Paul Zajicek	National Aquaculture Association
Peter Kingsley-Smith	South Carolina Department of Natural Resources
Phil Andreozzi	U.S. Department of Agriculture
Raining White	Leech Lake Band of Ojibwe
Read Porter	Marine Affairs Institute at Roger Williams University
Rob Bourgeois	Louisiana Department of Wildlife and Fisheries
Samantha Simon	USDA/Animal and Plant Health Inspection Service
Sandra Keppner	U.S. Fish and Wildlife Service
Sara LeSage	Michigan Departments of Environmental Quality
Shawn Good	Vermont Fish & Wildlife Department
Stas Burgiel	National Invasive Species Council (NISC)
Stephanie Miller	Bureau of Land Management

Stephen Phillips	Pacific States Marine Fisheries Commission
Su Jewell	U.S. Fish and Wildlife Service
Susan Pasko	U.S. Fish and Wildlife Service
Tammy Newcomb	Michigan Department of Natural Resources
Tanya Darden	South Carolina Department of Natural Resources
Theresa Thom	U.S. Fish and Wildlife Service
Thomas Woolf	Montana Fish Wildlife and Parks
Tim Campbell	University of Wisconsin Sea Grant Institute
Wesley Daniel	U.S. Geological Survey

2. Adoption of Agenda/Approval of Minutes

There was a move to adopt the agenda, and it was seconded. There was no discussion. The agenda was approved.

Lukens called for approval of the minutes from the November 2019 meeting. They were distributed to all members electronically and have been posted on the website. There was a motion to approve the minutes, and a second. There was no discussion. The minutes were approved.

3. Status of Action Items

Susan Pasko reviewed the status of the Action Items from the last meeting, listed below.

Action Items from the November 2019 ANS Task Force Meeting	Status / Notes
Develop a concise synopsis of key invasive species interagency organizations with relevant documents.	Complete The National Invasive Species Council compiled information from all interagency coordinating groups. The Overview of National Federal Interagency Coordinating Groups was completed March 2020.
U.S. Environmental Protection Agency and U.S. Coast Guard will report out at the next ANS Task Force meeting on “Intergovernmental Response Framework for Vessel Discharge Risks” and how the ANS Task Force can engage.	In progress Efforts have been delayed due to COVID, an update was provided during this meeting.
Once complete, the U.S. Coast Guard will submit the Report to Congress described under the Vessel Incidental Discharge Act (VIDA) to the ANS Task Force for comment.	In progress Efforts have been delayed due to COVID, an update was provided during this meeting.
Subcommittees will refine their FY20 work plans and resubmit them to the ANS Task Force by December 16, 2019. ANS Task Force members and panels will provide comments on the work plans to the Executive Secretary by January 13, 2020.	Complete All subcommittee FY20 work plans were finalized on time. Subcommittees reported on their progress during this meeting.

Action Items from the November 2019 ANS Task Force Meeting	Status / Notes
The American Boat and Yacht Council (ABYC) will be invited to provide an update on the status of the Technical Information Report marketing at the next ANS Task Force meeting.	Complete ABYC provided an update during this meeting.
Co-Chairs will establish an ad-hoc subcommittee to review the Draft ANS Task Force Bylaws, establishing roles, responsibilities, and operating procedures of the ANS Task Force for consideration at the next ANS Task Force meeting.	Complete A bylaws subcommittee was established in February 2020. The subcommittee reported on their efforts during this meeting.
Members and regional panels are invited to provide suggestions to the co-chairs on format, content, and layout of the next Report to Congress.	Complete This invitation was sent January 2020, and a call was held to discuss the format and content of future Reports to Congress. A draft Report was distributed to all members and regional panels for comment.
The next ANS Task Force will be held the week of May 4, 2020, and hosted by the Northeast Regional Panel.	Rescheduled The May meeting was postponed due to COVID. The Northeast ANS Panel will be given the opportunity to host the next in-person meeting of the ANS Task Force.

4. Presentation: NAS Update: New Species Occurrences and eDNA Standards

Wesley Daniel, U.S. Geological Survey (USGS) Nonindigenous Aquatic Species (NAS) Program Lead, provided an update highlighting recent non-native species introductions reported to the NAS, and the status of integrating eDNA into the NAS, including establishing minimum reporting standards. The NAS database currently has a data window for the Great Lakes Aquatic Nonindigenous Species Information System, and will soon add one for Lake Champlain. In 2020, there were three species reported new to the United States: Eyetail Cichlid (*Cichla* spp.), Blackbelt Cichlid (*Vieja maculicauda*), and Gar Characin (*Ctenopoma muriei*), although it is not clear if these are one time introductions or established populations. Overall, there were 254 alerts for 95 species, most of which were plants. USGS has been working on new tools, including an alert risk map (ARM); flood and storm tracker (FaST); impact tables, which provide a synthesis of known impacts; and SEINed, which screens and evaluates datasets for invasive and non-natives. USGS developed community standards for eDNA data, a communication plan, and is working on how to display the data. Data of eDNA will not automatically display; it will need to be turned on, and a pop-up will state that a positive result does not always mean the species is present at that location. Other ongoing projects include a national horizon scan for organisms in trade using Helen Roy's rapid screening tool to conduct a hotspot analysis to find the areas of highest risk of invasion. Upcoming projects include adding the Lake Champlain data portal, an Aqua-DePTH database (for aquatic diseases and pathogens), incorporating Canadian data, and adding a GIS Server to provide more flexibility on sharing and be able to add web feature services.

Q: What information sources are you using for impact data? Are you using ERSS?

A: Yes, we are using all available data. We look at ecological, economic, and human health information, and indicate if impacts are based on experiments, anecdotal evidence, etc.

Q: What criteria are you using for hotspot analysis? The Great Lakes looked at criteria. We would like to share.

A: Watch lists are not spatial in nature. We are focused on organisms in trade. Human populations are a major factor in high-risk areas. We are looking at landscape variables that may increase risk.

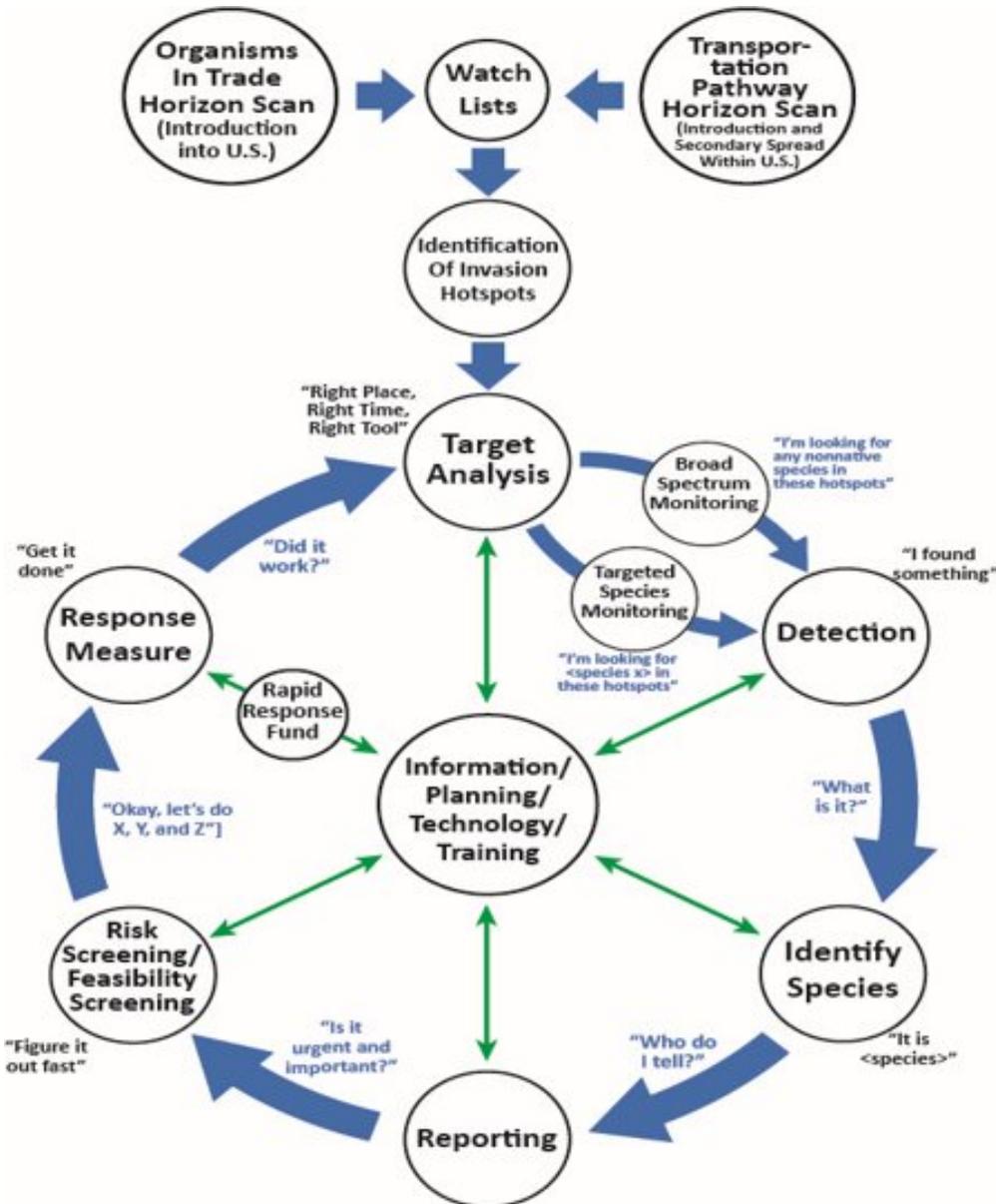
We use data from species of known high risk and how they compare with landscape variables.

Q: There is a challenge looking at existing data for hotspots – there are biases in data related to search effort and sampling bias. I would like to discuss this with you

A: We are aware of sampling bias, and would like to discuss further.

5. Presentation: EDRR: progress toward a national framework

Craig Martin (USFWS) presented progressions on the work to form a foundation for an Early Detection-Rapid Response (EDRR) framework. He discussed why the work is timely and how the ANS Task Force can contribute. If invasions are caught early, addressing them immediately results in a lower cost and higher efficiency. EDRR is essential as a failsafe from prevention. The ANS Task Force is a good forum for this work given its authority and interagency nature. There is a synergy with the alignment of strategic plans, current initiatives (Biosurveillance network, [Safeguarding Lands & Water from Invasive Species Framework](#)); NISC papers, science and technology development (molecular tools –detect early; portable and robotic tools), national interest (appropriations language; federal budgets) and literature to support such an effort. There are three levels of ED – species new to the U.S., areas of potential spread, and asset protection. See figure below for a graphic “blueprint”; work is currently moving forward on nearly all phases.



Adapted from Reaser et al 2019. The early detection of and rapid response (EDRR) to invasives. Graphic by Don MacLean, U.S. Fish and Wildlife Service

Wes Daniel (U.S. Geological Survey) discussed USGS efforts toward the national EDRR framework, including: development of an eDNA kit for use in streams to investigate the bait trade; autonomous sampling devices to sample eDNA on stream gauges; horizon scans for organisms in trade with hotspot analyses; and regional (Texas marine/estuary species; and Florida) horizon scans. These will also help inform the larger picture.

Stas Burgiel’s (National Invasive Species Council, NISC) presentation focused on coordination of EDRR work. The NISC is assessing federal capacity and authorities related to EDRR. NISC compiled information on EDRR into the [12 peer-reviewed articles](#). Given a heavy bias on ED, NISC has been focusing on RR. Currently, NISC is developing a paper delineating RR stages and outlining Federal roles and authorities for RR. NISC is also developing a report on emergency rapid response funding that assesses criteria and considerations as well as lessons learned from other emergency funding models.

Both projects are in the final stages. NISC is also working with groups focused on eDNA and wildfire that have linkages to emergency response. Burgiel suggested the following considerations: (1) defining the framework (top-down vs. bottom-up, taxa; how to build on existing work and gaps; and geographic and political scale); (2) Broadening the focus beyond federal agencies (interface with state and regional entities; lessons learned with regional activities; acknowledgement by institution/political leadership and filling gaps); (3) Strengthening underlying capacity and preparedness (need capacity to operationalize; may need strategic evaluation beyond federal capacities).

Comment (C): If additional funds are requested by the Administration, we need to be clear how new funds will be used; time is ripe to develop a plan. Think this is a really good effort.

Response: Many pieces are being accomplished, but often for one species or one basin; it is not comprehensive. NISC put together the blueprint and laid it out in detail through a peer-review process, it is a powerful framework that would have significant national benefits.

Q: We need to clarify terminology and semantics – report, strategic plan, framework, program, etc. Want to find common language. There was a National Framework in 2014. Are we talking about a government system, program or organization? I think we are talking about a program.

A: Yes. USGS is developing a Biosurveillance network, but States are the missing piece. ANS Task Force may be well positioned to help.

C: Agree. Need national system for EDRR, similar to fire. Capacity is important.

Comment: This has been a helpful discussion to summarize the elements of a national framework, look at terminology, and make sure everyone who can contribute is involved and engaged. As we continue forward with existing work, there will be new insight into next steps.

6. Update: ABYC - Technical Information Report

Brian Goodwin (American Boat and Yacht Council) provided an update on activities related to the marketing and outreach of *T-32 Design and Construction in Consideration of Aquatic Invasive Species*. ABYC used a grant funding from the USFWS to conduct outreach on the 2018 Technical Standards, taking advantage of a variety of formats, including print media (estimated 145K impressions), digital media (with 250K impressions and a click through rate of 0.5-2.3%), in-person, e-learning class, and video. The outcomes included increased awareness and some industry action. Upcoming activities include review of T-32 document, decontamination equipment improvement, and dip tank discussions. Challenges include ballast tanks, increasing implementation of the recommendations among marine manufactures; maintaining communication, improving decontaminating equipment, preparing for the next new invasive species, and improving boater experience.

Q: What type of feedback have you received on setting industry standards?

A: Industry is looking for additional benefits for implementing. Does implementation reduce the need for inspection? Some areas have no inspection; decontamination programs are a challenge.

Q: What are the next steps? You mentioned updating technical standards.

A: Some things built will live on. We will discuss in January at the AIS Project Technical Team meeting, and will ask about a standard. There are opportunities to continue outreach, and increase dialog about next steps.

7. Update: Vessel Incidental Discharge National Standards of Performance

Jack Faulk (U.S. Environmental Protection Agency, USEPA) stated the Vessel Incidental Discharge Act (VIDA) Standards of Performance mostly apply to commercial vessels. The USEPA is charged with developing uniform national standards of performance and the U.S. Coast Guard (USCG) is charged with developing implementing regulations to ensure, monitor, and enforce compliance with those EPA standards. Both the USEPA standards and USCG implementation regulations are to be reviewed and updated as necessary at least every five years. Existing 2013 Vessel General Permit requirements remain in place until new USEPA standards and USCG regulations are finalized. Once

finalized, States can no longer adopt or enforce requirements that are more stringent than federal requirements; however, VIDA did provide states with authority to inspect and enforce compliance with these new federal regulations.

The USEPA proposed the VIDA national discharges standards in late October 2020 that are based on best available technology economically achievable. One of the proposed standards to address aquatic nuisance species is a requirement for all vessels to develop and follow a biofouling management plan requirement for all vessels to prevent macrofouling. There are also revised discharge specific standards for ballast tanks, hulls and associated niche areas, and seawater piping. For ballast tanks, the proposed standards would remove the Best Management Practice (BMP) to minimize/avoid uptake of ballast water in certain areas. They would also extend the exemption for meeting numeric discharge standards by certain types of ships, most notably for Great Lakes bulk cargo vessels, (where there is no available treatment technology). The standard also prohibits cleaning hulls with macrofouling, unless using a clean and capture system or other exceptions are met. The proposed standards would also require seawater piping systems that accumulate macrofouling be fitted with a marine growth prevention system and require reactive measures to clean the piping if biofouling reaches a certain level. The USEPA also proposed procedural requirements for states to petition USEPA or the USCG to request more stringent standards or requirements, enhanced Great Lakes requirements, emergency orders, and no discharge zones. USEPA received approximately [180 individual comments](#), plus 28K mass mailers on its proposed standards.

In 2020, the USEPA Great Lakes National Program Office (GLNPO) also prepared a [Report to Congress as called for in VIDA](#), which lays out work being done in the Great Lakes and Lake Champlain to coordinate aquatic nuisance species related activities such as tracking, monitoring, response, etc. including for the research and development of ballast water technologies for Great Lakes vessels. The USEPA received five million dollars in funding in 2020 for use on that [ballast water research](#).

There are also requirements in VIDA for both the USEPA and USCG to develop intergovernmental frameworks (ballast water risk and response framework), but VIDA established no timeframe for completion. To date, the USEPA and USCG have not focused on required framework.

Q: Are there discharge standards? Exemption based on ships in Great Lakes? Timing?

A: Yes, numeric standards are based on size categories. Yes, there are exemptions in the Great Lakes. Not sure with change in administrations what the timing will be.

Q: What is the anticipated timeline? How does that align with Governor's opportunity to object?

A: There are 60 days for Governors to object (due Dec. 26). USEPA needs to respond to State objections before submitting a rule.

John Morris (US Coast Guard, USCG) explained the primary roles for the USCG under VIDA: (1) coordinate with USEPA as it develops vessel discharge standards; (2) implement the final USEPA discharge standards, including marine pollution control devices, by developing USCG compliance and enforcement regulations. In addition, USCG is required to develop a viability policy letter with requirements for evaluating ballast water systems for rendering organisms nonviable; a draft for public comment was released in 2019. A revised annual Ballast Water Report to Congress is forthcoming in collaboration with the Smithsonian Environmental Research Center and ANS Task Force. USCG will set up a conference call to provide the opportunity for questions and comments. Another VIDA provision required USCG to establish a Work Group on improving sharing ballast water management data with States and Territories. As USEPA stated, there is no specific deadline for the required Intergovernmental Response Framework, and there has not been much progress yet. The USCG plans to establish a framework on vessel discharges that deals with ANS introductions

in 2021.

Q: Do you expect the draft Report to Congress to be provided soon for ANS Task Force review? Will USCG reach out on develop of the Framework on vessel discharges that deals with ANS introductions in 2021? What is the timing on the draft report?

A: Yes, and Yes, primarily through Prevention Committee. In 2021.

8. Update: Asian Carp

Amy McGovern (National Asian Carp Coordinator and Fisheries AIS Program Supervisor for the Upper Midwest-Great Lakes Region of the USFWS) provided an update on the Management and Control Plan for Bighead, Black Grass and Silver Carps in United States. There is a unified national approach for all four species across the entire region. The Plan covers the Mississippi Basin, including 31 states, and has 7 overarching goals. The Asian Carp Regional Coordination Committee, which has been funded since 2010. There is extensive monitoring of Asian carp and data sharing; the population front remains unchanged. The Water Resources and Development Act (WRDA) charged the USFWS, National Park Service, USGS, and Army Corp of Engineers to slow and stop Asian Carp migration upriver. The Mississippi Interstate Cooperative Resource Association established four partnerships by sub-basin and established control strategies to support coordinated State response efforts. In FY20, there was an additional \$14M appropriation tied to funding in the Great Lakes, Mississippi basins and tributaries, including six sub-basins for a unified effort. There is consistency across the sub-basins, work is data-driven and complements State partner goals and capacities and involve early detection, mass removal, abundance determination, demographics, etc.

Public Comment:

A request to provide a public comment related to Asian Carp was made. Hoskins told the member of the public that the comment would be accepted at that time, rather than at the end of the meeting with the remainder of the public comments as it was related to Asian Carp. The statement read focused on the threat of Asian carp and current management activities, and emphasized that control mechanisms for widespread removal or eradication of Asian carp is not yet available. The speaker stated that he had self-funded research on a low toxicity piscicide and is looking for support to commercialize the product. In response to the public comment, the co-chairs asked the USGS representative to follow up with the speaker on potential funding opportunities to progress his work.

9. Presentation: National Invasive Species Council Management 2021 Work Plan

Stas Burgiel (NISC) provided an update on the 2021 NISC Work Plan. NISC focuses on coordination and communication among member agencies and other interagency efforts. In FY20, the priorities were rapid response authorities and funding, e-DNA, advanced biotech applications, invasive species and wildfire, and development of a crosscut budget. In FY21, activities include core coordination responsibilities, such as the crosscut budget, as well as thematic priorities (some continuing from the FY20 work plan). These priorities include finalizing work on RR and the use of eDNA in invasive species management; invasive species and wildland fire; tools for disaster response to address the introduction and spread of invasive species; and a range of issues for interagency discussion such as advanced biotechnology applications.

10. Update: Department of the Interior

Hilary Smith (Senior Advisor for invasive species for the Department of the Interior, DOI) provided an update on the Department's work. She acknowledged the bureaus as instrumental in accomplishing the work. DOI accomplishments regarding invasive quagga and zebra mussels include raising awareness of leadership at all levels about invasive species issues; strengthening internal coordination among the six Bureaus working in this area; building a stronger relationship with the Western Governors' Association and the States, and boosting funding. An Interagency MOU among DOI, U.S. Forest Service (USFS) and the U.S. Army Corps of Engineers (USACE) was announced in November. The FY19 Appropriations Act

charged DOI to work with federal agencies and western states to develop an incident command system (ICS) for mussel response in western waters. The MOU is at a national level and broadly covers response, including coordination; preparedness planning; resource and data sharing agreements; and monitoring. The Department is also working on proposed National Environmental Policy Act categorical exclusions to cover a wide variety of invasive species control and eradication activities. The Department adopted an invasive species policy in July 2020. An invasive species Strategic Plan is under development under the Dingell Act. The Strategic Plan was announced in the Federal Register in August and several listening sessions were held; the Plan will be finalized soon. The Plan has five goals focused on collaboration; prevention; EDRR; control and restoration; and data management. DOI will develop additional performance measures that are meaningful, and would like input on this.

Q: Do you foresee a Departmental Annual Report to Congress in the future? How can we coordinate a collective federal agency report? Not sure ANS Task Force report is right place.

A: The Dingell Act does not require a report to Congress on the Strategic Plan, but does require a report on some other aspects of the provisions of the Act. The Department commits, in the Strategic Plan, to report annually on DOI's implementation of the Plan, still determining what that report would look like and to whom it will go. We are sensitive to report-overload. I will discuss with the DOI Task Force and leadership on preferences for next steps on reporting.

C: The only thing the public is interested in is, are you controlling the invasive species? With Asian Carp, you are spending a pile of money and they keep expanding. The focus needs to be on whether you are solving the problem, or if the problem is getting worse.

A: Thank you. Communication is part of the plan. We can do a better job of telling where we are getting it right and where we can be doing a better job. We will continue working on performance metrics and messaging.

11. Public Comment

No additional public comments were made, the comments below were made in response to the public comment that followed the Asian carp presentation.

C: I am not aware of any invasive species being completely eradicated. You need to seriously consider the impact control tools on native species. For example, copper has a significant impact on native mollusks and salmonids.

C: The USEPA is concerned about impacts on non-target species for any pesticide. Copper is already a commonly used aquatic pesticide. The USEPA will look at any additional uses and the environmental effects. No one can identify any invasive species eradicated, but some such as sea lamprey is controlled with pesticides. Asian carp are controlled primarily with barriers.

Adjourn Day 1.

Wednesday, December 9, 2020

12. Welcome / Discussion: ANS Task Force Bylaws

Jennifer Lukens reminded the ANS Task Force that there was an action item from the November 2019, meeting to establish an ad-hoc Subcommittee to review the Draft ANS Task Force Bylaws to establish roles, responsibilities, and operating procedures. After thanking the members of the working group, she recapped the process and walked through recent changes in the document, including:

- Adding some Federal Advisory Committee Act (FACA) language under name and purpose;
- Clarifying member (organization) vs. representative (person) under Article 2. Terms are different for members identified in the statute, which have no limit vs. those invited after the Task Force was established, which have two-year terms (or less if charter expires)
- Added language under Roles and Responsibilities on importance of attendance and participation in meetings.
- Called out unique role of Regional Panels vs. Subcommittees.
- Section 4, on meeting procedures, defined a quorum as a simple majority.

C: Suggest that under the attendance section the last phrase should be moved to the beginning of the paragraph. Under quorum, “majority” should be changed to “simple majority” for consistency with Roberts Rules.

Q: Regarding Subcommittees – how is membership determined? Does someone need to approve it?

A: The Task Force co-chair will identify the need to form a subcommittee; the chairs are appointed from the Task Force, but other members do not have to be on the Task Force.

Q: Does Subcommittee membership require approval? The By-laws are silent on that issue.

A: This will need to be discussed for the next revision.

Q: Under Subcommittee section, Subcommittee chairs are appointed from Task Force members or their alternates. Would it be helpful to state who appoints?

A: Task Force co-chairs will need to approve membership.

C: That should be specified. Could a member of the Task Force appoint a chair?

A: We need to revisit this issue

C: Should we mention the revision and adoption process for the Bylaws? This time we have an appointed Subcommittee that is bringing the document before the Task Force. What does it take to adopt?

A: That is addressed at the top of page 7 – revision requires 2/3 member approval.

C: Under responsibilities and roles for Co-chairs, it says Co-Chairs are responsible for activities necessary to carry out the Act. Would it help to have a bullet list with some major tasks that the co-chairs are responsible for?

A: We decided to not repeat the information called out in the Statute.

C: By laws are generally brief, then organizations adopt guidelines (e.g., procedures manual) with day-to-day operational guidance to explain jobs and roles.

A: That could be our next stepdown. We will circle back this on after the Bylaws are done.

C: The documents produced by the Control Committee says work group members need approval by ANS Task Force. We need to keep consistent. Let us know outcome of discussions.

C: The Bylaws subcommittee will consider the comments made and present a revision to the Task Force at the next meeting.

13. Coordination Goal Updates and 2021 Work Plan

Susan Pasko (ANS Task Force Executive Secretary) provided an update on the Coordination Goal accomplishments and 2021 Work Plan. Accomplishments included holding one ANS Task Force meetings (the second was cancelled as a result of COVID); drafting a template for responding to regional panel recommendations; providing technical assistance for state ANS management plans, holding one Regional Panel Principles meeting; drafting refinements to the annual accomplishment reporting; and drafting the FY19 Report to Congress. In FY21, routine operations will continue with two Task Force meetings (although these may be virtual), one Regional Panel Principles meeting, providing technical assistance on ANS Management Plans, and building capacity to fund management plans and regional panels. Continuing activities from FY20 include work on the Bylaws and refining accomplishment reporting. New projects for FY21, include updating the Task Force website, preparing the 2020 Report to Congress, and developing an information packet for new members.

C: It would be useful to have a packet for new members similar to the document for Regional Panel Chairs.

A: Yes, that is the intent. We will be reaching out to find out what information would be useful.

Q: Ultimately, every state activity falls under one of the ANS Task Force goals. It would be helpful to have a reporting tool with a box you check. For example, distributing brochures falls under Education. Then, you could roll up numbers and say what most common activities are.

A: Agree; anything that we can quantify is advantageous.

14. Prevention Subcommittee Updates and 2021 Work Plan

James Ballard (Gulf States Marine Fisheries Commission) presented an update on the Prevention Subcommittee work. The Subcommittee pulled together recent documents related to the Pathway Risk Assessment document, but was not able to identify funding or staff time to review the documents in 2020. USFWS drafted an internal decision memo to include high-risk species on Import Declarations, and USGS digitized the list of aquatics in trade. USGS and USFWS are conducting a global horizon scan for organisms in trade. In FY21, the Subcommittee plans to finalize the USFWS internal agreement, pilot addition of high risk species to those included on Import Declarations, address the problem with reporting hybrids, and assist USGS and USFWS in the development of watch lists based on the horizon scan outcome. The Subcommittee worked on determining where prevention measures are lacking or ineffective by querying the NAS database for cause of introductions; many introductions were from the pet trade which prompted discussions with industry. In FY21, the Subcommittee will look at case studies, evaluate additional prevention metrics, and look at tools to assess internet trade. In FY21, the Subcommittee will coordinate ANS Task Force review of the USCG Ballast Report to Congress, consider facilitating state and regional discussions, establish an ad-hoc subcommittee focused on VIDA, and establish a framework for intergovernmental response. Additionally, in FY20, a Work Group drafted a Notice of Funding Opportunity for a Seaplane Risk Analysis. Additionally, the Western Regional Panel drafted marine mobile infrastructure guidance and the U.S. Forest Service worked to address spread via fire response. The ANS Task Force could expand on these projects in FY21.

C: We are pleased how funding is coming together for the seaplane risk assessment, including from Bureau of Reclamation, Lake Tahoe Regional Planning Agency, Seaplane Pilots Association, and USFWS. We are pursuing other opportunities to reach our funding goal.

Q: Because biofouling and in-water effluent is a significant new discharge stream, could we add review and planning for in-water effluent under VIDA?

A: Probably, we can discuss with USCG and USEPA

C: I am not sure if review of the VIDA Report to Congress and development of a Framework for intergovernmental response should be at the ANS Task Force Committee or Subcommittee level.

Q: Seems like risk from ballast water under VIDA depends on reporting of the violation or discharge that violates VIDA. Does USCG have a tool that States could access or receive an alert of violations?

A: This will probably fall under USCG regulations to be developed by 2022. USEPA must develop standards first. I am not sure of the status. It may build off existing regulations. It is too early to answer the question.

C: The Western Regional Panel Ballast Water Reporting Work Group is working with States to provide States access to reporting forms.

C: Real time reports are provided by States, but they collect the initial part of the data, and do not identify violations – they need to be investigated. There is a Working Group that likely will address this.

15. EDRR Subcommittee Updates and 2021 Work Plan

Wesley Daniel (U.S. Geological Survey) presented the Early Detection Rapid Response Subcommittee's accomplishments and work plan. The Subcommittee is working in seven areas. Work on increasing NAS Capacity is ongoing, with the internal analysis completed. In FY 21, there will be a survey to get stakeholder input, followed by development of a strategic plan for ANS Task Force review and finalization. In FY20, USGS conducted town halls to get input on reporting standards for eDNA detections and drafted a white paper for comment by ANS Task Force and others. USGS will have data entry mockups soon, and hopes to begin data entry in the spring. The template and guidance for the ICS-interagency mussel MOU was signed, the Subcommittee reviewed a NISC paper on ICS, and conducted a survey to obtain information on rapid response. Several rapid response Plans are in place, but impediments included funding, impacts to endangered species, communication, training, species identification, and the need for tools and guidance. In FY21, the Subcommittee will take a step back from developing training, and look at needs, explore training options, identify trainer, and provide input into development. NISC is working on a report on establishing rapid response funds and federal agency roles; after the NISC report is complete, the Subcommittee will review and develop a rapid response fund model. Rather than assessing horizon scanning methods this year, USGS and USFWS shifted to conducting horizon scans for organisms in trade and transportation pathways, and worked with others doing regional scans for Texas and Florida. In FY21, the Subcommittee will assist USGS and USFWS in the development of watch lists, evaluate through the regional panels, and send to ANS Task Force. The Subcommittee has two possible new future outputs: develop guidance on threshold and decision making criteria to determine appropriate management actions for new reports of invasive species, and develop a report on tools for interpretation of eDNA detection patterns.

Q: How do these overlap with NISC projects? NISC has plans to develop a white paper for managers. It may be worth bringing ideas to that group to see if you can work together.

A: The Subcommittee will work with NISC.

C: States would like to take advantage of technology, but do not know how to interpret eDNA results. New England states are working on an eDNA tool, but need to determine next reasonable steps.

C: The new goal is in line with the WRP eDNA Working Group on how States interpret data. Higher level work would be fantastic.

C: A key question with an eDNA hit is, was it one hit or multiple locations? Those factors would determine appropriate response. Should you ask for more samples, do survey? Perhaps some guidance for WRP would be helpful to share range of responses.

A: Good point. Another important element is, what if an outside party makes the eDNA observation? Need to consider NGOs and citizen science.

C: This is a great item to be working on; also look at how this can improve rapid response. Could it enhance response to invasion, help determine where need to apply additional chemical? Broadening this to include those components could be helpful.

A: Great thought. We would be happy if you want to help towards that effort.

Q: Do you want to have a discussion with the group on input on rapid response training?

A: Yes, there was discussion about ICS not always being the right tool for rapid response. And, maybe we should come back to the ANS Task Force and discuss needs. Is ICS training the approach we want to take? I know there are groups that have ICS developed, e.g., Columbia River Basin.

C: We are not trying to move from ICS. It can be adapted and scaled, and people may not know that. Maybe we need a workshop on rapid response to discuss with State responders and others. It does not make sense to pursue multiple approaches. We need a general consensus on direction. If we can generate success with ICS, communicate what it is about and identify options for approaching, then there may be some opportunities.

C: There may be critical components of Rapid Response. ICS is just a strategy and framework for carrying out a response. Species are not confined to one jurisdiction; it is problematic if lead agencies are not identified from different jurisdictions. Maybe we need someone to take the time to adapt ICS to invasive species rapid response. Please do not overlook how to track resources and document actions; we need to be able to track and report. I support using ICS.

C: I have participated in ICS, and it can be very involved, but the essence is clearly defined roles with each person knowing their role, who they report to, and who makes decisions. There is value in having everyone understand roles, who to report to and what they are responsible for. It is a good model, and Arkansas used it in the snakehead plan.

C: California developed their plan for quagga mussels in Lake Mead and rapid response was based on experience with ICS.

C: The DOI Mussel MOU Team spent a lot of time discussing ICS while developing the MOU for mussel response in the West. Although we did not develop a template for ICS and instead focused more broadly on rapid response, the MOU does include the types of actions necessary to support effective rapid response, including use of ICS as a tool. Directive was from Congress focused on ICS, but after talking with States, they wanted to focus on containment rather than ICS. Is it worth offering ICS training before or after an ANS Task Force meeting? Or, training on how adapt ICS framework for invasive species? It is complex and training would take time. Some regions are far ahead, have a rapid response network, and may not see a need, but other regions may see a benefit. Open for input

A: I want to revisit this with the Subcommittee in light of this discussion.

16. Control and Restoration Subcommittee Updates and 2021 Work Plan

Kim Bogenschutz (Association of Fish and Wildlife Agencies) provided an overview of the work of the Control and Restoration Subcommittee. In FY20, the Subcommittee used a survey to assess eight ANS Control Plans (excluding QZAP & brown tree snake) to determine if they should be archived, revised, or remain active. The Subcommittee provided a report on their assessment, which recommends that Asian Carp, Lionfish and Snakehead remain active; Genus Caulerpa, European Green Crab, New Zealand Mud snail, and Ruffe be revised; and Mitten Crab be archived. The Committee drafted guidance for ANS Management and Control Plan development, which identified a process and recommended content. The Subcommittee requests comments on both documents. Plans for FY21 include: determining leads for active control plans or those needing revision and assisting in forming committees; developing a formal process for approval to develop a new Control Plan; communicating perspectives on use of genetic-based tools; compiling survey results on gaps in control and restoration; and identifying entities that can help fill gaps in control/restoration measures.

Q: I like the proposal for a plan lead that can report annually. History suggests plans that are actively

promoted have received resources. Did the survey identify anyone willing to do this?

A: Yes, we had some volunteers to help, although maybe not be lead. This has been lacking, but would increase visibility of plans.

Q: Great job in taking initiative. What timeframe do you have in mind for document review?

A: Maybe give people 1-1.5 months to review.

The deadline for Control Subcommittee document comments was set at February 26, 2021. Send comments to Kim Bogenschutz and Don MacLean.

17. Public Comment

No public comment.

Adjourn Day 2.

Thursday, December 10, 2020

18. Welcome / Research Subcommittee Updates and 2021 Work Plan

Susan Pasko (ANS Task Force Executive Secretary) presented the accomplishments and work plan from the Research Subcommittee. Jeanette Davis, who took a new position, originally chaired the Subcommittee. Until we find a new chair, Susan will keep things moving. In FY20, the Subcommittee began developing an annual national priority research list; surveyed the ANS Task Force, regional panels and State AIS coordinators for ANS research entities; and began developing a model for a research grant program and exploring funding options. In FY21, the Subcommittee will develop a list of research priorities; survey entities to identify ongoing work and gaps; develop a communication plan to promote research priorities to guide future funding; and develop a tracking system for research priorities.

Q: Do the research priorities include regional priorities?

A: Yes, the Subcommittee will make raw data available to the panels for their review (minus personal information).

C: I like the idea of including research priorities in the Report to Congress.

Q: I assume Congressional funding for the ANS Task Force does not typically include funds for research. True?

A: Yes; research funding is not included.

19. Outreach Subcommittee Updates and 2021 Work Plan

Doug Jensen (University of Minnesota Sea Grant) provided an overview of the Outreach Subcommittee's work. In FY20, the Subcommittee drafted a Notice of Funding Opportunity (NOFO) for an assessment of national campaigns, including Stop Aquatic Hitchhikers! (SAH!); Clean, Drain, Dry; and PlayCleanGo. We expect to award the grant by April 2021. The Subcommittee asked Task Force to help identify individuals with expertise in outreach to serve on the Subcommittee, and plan to form a new Outreach Community of Practice (CoP). The Subcommittee updated the SAH! Graphics Portal; and drafted a Fact Sheet and PowerPoint on the ANS Task Force that will be distributed for review. In FY21, the Subcommittee plans to coordinate with other Subcommittees (e.g., research) to assist with communication needs; will convene a team to review NOFO submissions and monitor the funded project; add a marketing showroom and image library to the SAH! portal; identify leaders for the ANS CoP; and conduct a survey of members and panels to identify outreach needs and barriers.

Q: What constitutes a CoP? Is it a forum to vet ideas and develop standard messages?

A: The idea came from University of Minnesota Extension. It is an open forum for vetting ideas of common interest that spans many Departments. (e.g., renaming species with place-based names that are culturally insensitive).

20. Work Planning Wrap Up and Discussion

David thanked the Subcommittee members for their work in developing and drafting work plans, and the people on the call that provided feedback. Plans need to be finalized based on input. Subcommittees will have until early January (January 15) to make refinements and resubmit plans to Pasko. Then, the Task Force will provide a final fatal flaw review. If no comments are received (by January 29), they will be considered final at the end of January. We will ask for accomplishments on these work plans toward the end of the fiscal year.

21. Regional Panel Recommendations

Western Regional Panel (WRP)

Tom Woolf (WRP, co-chair) presented the recommendations of the Western Regional Panel:

- 1) In order to facilitate the stated goals of the ANSTF Strategic Plan, WRP recommends continued and additional funding for Regional Panels (Coordination), QZAP (Coordination & Prevention) and State/Inter-state Plans (all goals)

Response: FY 2020 saw an increase in funds for the State and Interstate ANS Management Plans, from approximately \$2 million to \$3.8 million, with each plan receiving nearly \$90,000 for implementation. Regional Panel funding was also restored to \$300,000, or \$50,000 per panel. Funding for control and prevention under QZAP implementation increased from \$1 to \$2 million.

We will continue to support the operation of the regional panels as budgets allow. We are currently operating under a Continuing Resolution so funding levels for FY 2021 remain uncertain.

- 2) Support immediate actions to detect and control European green crab (EGC) in Washington State, Alaska and National Marine Sanctuaries located in the eastern Pacific Ocean:
 - NOAA (NMFS) provide adequate long-term funding to eastern Pacific Ocean National Marine Sanctuaries, Washington Sea Grant, Alaska Sea Grant, and Kachemak Bay National Estuarine Research Reserve to maintain and expand their critical community-based citizen-science early detection monitoring programs and technical expertise;
 - USFWS, NOAA and EPA actively engage and provide funding to address imminent danger of EGC developing a self-recruiting population in the Salish Sea, and to prevent aquaculture and fishery impacts to coastal estuaries;
 - USFWS, NOAA and EPA actively engage in research and development of early detection and control management tools for EGC.

Response: We have shared the recommendations with NOAA points of contact. There are a variety of ongoing programs (Sanctuaries, National Estuarine Research) that contribute funding. Long term funding is more of a challenge. There are no line items for invasive species funding, but we do our best within existing funding. There is a commitment to work together within existing mandates, but not to long-term funding for European green crab.

- 3) The Frank LoBiondo Coast Guard Authorization Act of 2018 (Public Law No: 115) requires that the Secretary of Commerce and the National Fish and Wildlife Foundation to establish a program, to be known as the “Coastal Aquatic Invasive Species Mitigation Grant Program,” under which the Secretary and the Foundation shall award grants to eligible entities.

- We have not seen any movement on the establishment of this Grant Program from the Department of Commerce. The WRP requests the ANSTF to encourage the Department of Commerce to prioritize the establishment of the Coastal Aquatic Invasive Species Mitigation Grant Program in an expedited manner.

Response: Regarding the ANS mitigation grant program – while the Program is authorized, no appropriations were made for this grant program. It will not be set up until appropriations are made available.

- 4) Consider the Western Regional Panel's Entrance, Exit, and Off-Water inspection protocols for adoption as the national standards for watercraft inspection. This recommendation could be responded to by the prevention committee.

Response: Strategy 2.3.a under the ANS Task Force Strategic Plan states “Develop national strategies for priority pathways and recommend risk management measures.” To progress this strategy, the Prevention Subcommittee is planning to review and adopt, as appropriate, existing prevention strategies developed by ANS Task Force members and regional panels and share recommended strategies to ANS Task Force members and partners who can take action. The Western Regional Panel's Entrance, Exit, and Off-Water inspection protocols will be shared with the Prevention Subcommittee; the subcommittee members will review the document and make a recommendation for the appropriate action.

Mid Atlantic Regional Panel (MAP)

Edna Stetzar (MARP, incoming chair) presented the Mid Atlantic Regional Panel recommendation:

- 1) The Mid-Atlantic Regional panel recommends that the Commonwealth of Virginia seek funding under the Nutria Control and Eradication Act of 2020 in order to control and eventually eradicate this invasive species in the Commonwealth, completing the eradication of nutria from the Chesapeake Bay Watershed. The Panel further recommends that the Aquatic Nuisance Species Task Force as a whole - and its member agencies individually - vigorously support Virginia's fiscal request.

Response: Public Law Number 116-186 (10/30/2020), the Nutria Eradication and Control Act of 2020, reauthorizes through FY2025 and revises the Nutria Eradication and Control Act of 2003, which provided grants to Maryland and Louisiana for a program to eradicate or control nutria. The program also provides grants to restore marshland damaged by nutria. The Act states that the Secretary of the Interior may provide financial assistance to a State, in an amount that is in proportion to the total impacted area of such State affected by nutria, that has demonstrated to the Secretary sufficient need for a program to implement measures to eradicate or control nutria and restore marshland, public and private wetlands, and agricultural lands damaged by nutria. The Service's Partners for Fish and Wildlife Program is authorized and has been appropriated funds for nutria eradication and control, assuming Congress appropriates funds to the USFWS for this work in its FY2021 Appropriation's Bill.

The Chesapeake Bay Nutria Eradication Project, which started in 2002, has removed nutria from every nutria infested watershed on Delmarva, and is now engaged in revisiting previously trapped watersheds to verify eradication and to remove any animals if they are discovered. To date over 14,000 nutria have been removed from more than 150,000 acres in Maryland and Delaware. The Service has recognized the value of this program and has previously expressed support for its expansion into neighboring states (e.g., Testimony of Stephen Guertin on H.R. 3399). Should Virginia decide to submit a request for funding, the Service will evaluate this request against the grant requirements and take the appropriate steps.

Mississippi River Basin Panel (MRBP)

Chris Steffen (MRBP co-chair) presented the Mississippi Basin Panel recommendations:

- 1) Increase funds to regional panels. Regional panels serve as an invaluable tool for disseminating ANS information, building partnerships, and coordinating regional ANS management efforts. The capacity of the panels to provide these benefits is limited by available funding. Increased funding would increase services provided by the panels and improve overall ANS coordination in the regions. Additional funds to regional panels would allow the regional panels to address emerging coordination, prevention, early detection and rapid response, control and restoration, research, and outreach and education priorities in a timely manner.

See response to Western Regional Panel

- 2) Do not revise Bighead, Black, Grass, and Silver Carps Management and Control Plan. Revising the current Bighead, Black, Grass, and Silver Carps Management and Control Plan would provide little benefit in comparison to the enormous amount of time and effort needed to complete the task. The sub-basin frameworks are a much better option for inclusion of new or revision of outdated information. They were designed as living documents to be updated as needed for management of Asian Carps.

Response: During 2020 the ANS Task Force Control Subcommittee began a review of the Task Force-approved species management plans. The review will conclude with a recommendation for each plan for it to be achieved, updated, or remain active without change. The control subcommittee was been forwarded this recommendation and it is being considered as they draft their final recommendations to the ANS Task Force.

22. Updated Recommendations for the Quagga and Zebra Mussel Action Plan (QZAP 2.0)

Elizabeth Brown (North American Invasive Species Management Association (NAISMA) and Past-Chair of the Western Regional Panel (WRP) presented information on the final QZAP updated recommendations developed by the WRP and ongoing activities. The original QZAP for Western US Waters was developed in 2008-2009 and finalized in 2010. It is intended to be a regional multi-jurisdictional roadmap to prevent the further invasion of zebra and quagga mussels in the western US. WRP evaluated QZAP in 2013 and did not elect to make any changes at that time. In 2018, the Executive Committee voted to update the QZAP. Prior to updating the Plan, they published the *Building Consensus in the West Workgroup Final Activity Report*, and *The QZAP Status Update Report* in 2019. As part of the process, they categorized the status of each action, and decided which to carry forward into the QZAP 2.0. The new plan has 6 strategies and 55 action items. The new plan has the following objectives:

1. Capacity: Increase coordination, implementation funding, improve legal authority, better engage with Tribes, support basin teams and develop new basin teams.
2. Prevention and Containment: Continue and improve upon mandatory boat inspections and decontamination for containment and prevention; mandatory inspection at points of entry to Alaska; data sharing; maintain basin teams; evaluate other pathways (contaminated equipment, hauled watercraft, marine industry); use *Hazardous Analysis and Critical Control Point Planning* to reduce spread.
3. Early Detection Monitoring: Adopt standard protocols and QA/QC reporting; expand laboratory capacity; develop protocols for eDNA.
4. Rapid Response: Make sure funds are available and, basins have plans; duplicate the work done in the Columbia River Basin (training, manual, communication, exercises).
5. Research for Control and Management: Conduct a regional risk assessments, utilize social science, and develop new effective control methods. Update research priorities from Mussel Research Priorities Workshop held at Portland State University in 2015, in collaboration with the ANS Task Force.
6. Education and Outreach: Use consistent, effective messages; conduct social science survey on

boating behavior; coordinate with other Panels so visitors from other regions will know what to expect; and use multiple platforms. Use ANS Task Force voluntary guidelines for recreation.

Evaluation measures were added to Plan 2.0 to make progress easier to track. The QZAP and the coordination through the WRP is working, as we have not seen new invasive species where boat inspections are happening. But some infested places (e.g., Lake Powell) are overwhelmed. Further information is at: www.westernregionalpanel.org

C: Thank you. Objective B is most crucial. The uninfested West is stressed by infested areas that continue to grow. There was a tremendous increase in encrusted mussels this year. We need days to deal with the boats. Utah is struggling with the containment program. More work and effort are needed to coordinate efforts across jurisdictions. I encourage ANS Task Force to do anything they can to support this work. Maybe working through DOI Field Special Assistants.

C: The evaluation strategy is good. Give serious consideration to having people report the cost and source (federal and State) of funds for projects. This illustrates commitment and devotion of resources.

23. Presentation: Incident Command System: Columbia River Basin

Leah Elwell (Invasive Species Action Network) and Stephen Phillips (Pacific States Marine Fisheries Commission) presented information of the work in the Columbia River Basin (CRB) to adapt and develop an incident command system (ICS) for invasive species response as part of the CRB Dreissenid Incident Response Toolkit.

Stephen Phillips discussed the 100th Meridian Columbia Basin Team, initiated in 2003, and funded by USFWS and USEPA. In this area, an interjurisdictional response is needed for dreissenid discoveries. The ICS was recommended to organize rapid response events, based on how it has been applied for wildfire situations. A training held in 2007 resulted in the development a multi-jurisdiction Rapid Response Plan. Recently completed an Endangered Species Act Manual with regional USFWS funding. The manual is to be used during dreissenid rapid response events to help guide managers weighing control options (e.g. copper applications) that may impact ESA –listed species. They worked through the ESA consultation process with USFWS and NOAA during a rapid response exercise. They have been conducting tabletop exercises since 2007, with an early focus on ICS training, and more recent focus on use of online forms. . The modified process is modelled on ICS, but not as complex.

Leah Elwell stated that ICS is widely used at all levels of government to respond to emergencies. It is just a structured way to manage a complex situation. The fundamentals are modular and scalable, including managing span of control, unity of command, explicit transfer of responsibility, clear communication, shared action plans, management by objective, management of time and resources, and, often, designated facilities. The team includes a Commander(s), Public Information lead, Safety lead, Legal lead and an ICS Advisor. Forms were developed to provide structure and record keeping. Exercises are conducted using realistic scenarios. In the Columbia Basin, a team was formed to modify the ICS organizational chart for dreissenid responses. The Lead Action Agency has the role of Commander; and the Program leads were modified to Response lead, Monitoring lead and Containment lead. Training exercises are less heavy on ICS, and more geared for participants to understand their roles, responsibilities and possible responses to a situation. There are many resources available for ICS.

Q: The CRB has focused on dreissenids; are you equally prepared for other species?

A: The ICS forms and the process would work for any species and various situations.

A: My advice to all is if you have a species you think will show up, look at the available tools and take action to prepare, especially regarding ESA and Tribal consultations.

Q: From the perspective of the Rapid Response Task Force, and one ICS exercise for Rapid Response in Lake Champlain, I think this tool is really useful. You are only as good as you train; you need practice. What tools and permits do you need to be prepared? Training integrating ICS into Rapid Response is important in thinking about what critters may be coming down the line.

A: It is good to identify constraints as you go through drills.

24. Decisional: State Plan ANS Management Plan Approvals

Indiana State Management Plan

Eric Fischer (State AIS Coordinator, Indiana Department of Natural Resources) presented a summary of the updated Indiana ANS Management Plan. The original Plan was approved in 2004. The original Plan put the AIS program in place and identified feasible and cost effective practices and annual measures to gauge progress. Indiana received funding and hired a full time AIS Coordinator in the Division of Fish and Wildlife (DFW). Many stakeholders reviewed the original plan. Indiana wanted a more comprehensive, user-friendly document. The original plan was not used much by others. Plan purpose is to guide actions, prevent introduction and dispersal of AIS. The new plan is more specific with identified actions and goals. The State is leaning heavily on ICS, working with other Divisions, and the Invasive Species Council. Indiana contracted with a private environmental consulting group to do the edits, allowing to engage with people that contributed to the first plan. Indiana DFW had regular calls with the contractor. The State reviewed Plans from neighboring States and contacted USFWS for suggestions and review. The new plan has expanded coverage of tools and species, but is streamlined and more usable than the original document.

Don MacLean (USFWS) stated he conducted a preliminary review of the new Plan in 2018, and provided 15-20 pages of comments. Indiana did not get a preliminary review from the ANS Task Force, but that is not required. The Plan has been significantly improved. Indiana incorporated many of his comments and he recommended approval. Indiana also provided responses to comments

Decision:

There was a motion, and a second, to approve the revised Indiana State Management Plan. There were no objections, and the Plan was approved.

Colorado State Management Plan

Robert Walters (Invasive Species Specialist, Colorado Parks and Wildlife) presented a summary of the updated Colorado State Management Plan. The Colorado Parks and Wildlife (CPW) ANS Program was formed after zebra mussel veligers were detected in 2008. The ANS Act was passed to formalize the Program, which includes sampling and monitoring; watercraft inspection and decontamination; data sharing; and information and outreach. A multijurisdictional team was formed to develop the Plan in 2006, which is updated semi-annually. In 2013, Colorado submitted a draft to the ANS Task Force. It was updated between 2018 and 2020, reviewed internally and by partners, and then provided for public comment. Legal authorities are shared between CPW with Colorado Department of Agriculture. The Plan provides a statewide comprehensive approach, coordinating activities among agencies and partners. There are 19 downstream states. The goal is to minimize ANS effects, using a data-driven science-based approach. There is a risk of introduction and establishment of zebra and quagga mussels. The Plan also included other aquatic invaders, but Colorado has few ANS in most waters. It is centered on managing human-mediated pathways. There are several statewide plans for specific species (e.g. New Zealand Mudsnails). There are over 20 strategies with over 50 actions. The top priorities are to maintain the ANS program and funding (including for mandatory Watercraft Inspection and Decontamination); address organisms in trade; and form collaborations to address illegal stocking. The Plan includes a Rapid Response strategy. The Plan provides a means to evaluate success, and will need to evolve. Management adaptations are anticipated.

Don MacLean stated the process started in 2011. Five ANS Task Force members provided comments on the Plan, and Colorado incorporated nearly all comments. Another review was done in 2020, with more comments provided. The Plan has been thoroughly updated since 2013, including information on what has occurred since 2013. Colorado should be commended, and he recommended approval of Colorado's AIS Management Plan.

Decision

There was a motion, and a second, to approve the Colorado State Management Plan. There were no objections, and the Plan was approved.

It was announced that public comments would be moved up to 3:30 pm E.

25. Meeting Summary

Next Meeting

There was a discussion about scheduling the next ANS Task Force meeting. Pasko said the meeting is typically held the first week in May, and suggested that we may want to confer with the Northeast ANS (NEANS) Panel, as potential hosts, to see if that gives them enough time to plan. NEANS Panel representatives stated will need time to plan a physical meeting if the ANS Task Force wishes to meet in-person.

C: We should plan on the first week of May as a virtual meeting, with the caveat that we may move the meeting later to accommodate an in-person meeting when the situation is more stable. .

26. Public Comment

No public comment,

Adjourn Day 3.