

AQUATIC NUISANCE SPECIES TASK FORCE: MINUTES OF THE MAY 2019 MEETING MAY 8-9, 2019; SOUTH LAKE TAHOE, CALIFORNIA

On May 8-9, 2019, the Aquatic Nuisance Species (ANS) Task Force held a two-day meeting at the Lake Tahoe Hotel Resort in South Lake Tahoe, California. Action items are listed below, followed by a summary of the meeting.

Decisional Items

The ANS Task Force made the following decisions:

- Approved the revised Wisconsin Aquatic Invasive Species (AIS) Management Plan
- Approved the 2016-17 ANS Task Force Report to Congress
- Approved the ANS Task Force Strategic Plan for 2020 – 2025

New Action Items

The ANS Task Force assigned the following action items:

- ANS Task Force members and regional panels will send any comments on the revised North Dakota ANS Management Plan by June 1.
- ANS Task Force Chairs will review the Vessel Incidental Discharge Act (VIDA) to identify ANS Task Force roles and responsibilities and report back at the Fall 2019 ANS Task Force meeting.
- The ANS Task Force will coordinate with applicable members to respond to the Mid-Atlantic Panel recommendation regarding the Chesapeake Nutria Eradication Partnership.
- The Western Regional Panel will communicate perspectives from the ANS Task Force to the Panel members regarding the revision and potential expansion of QZAP and provide a recommended approach to the ANS Task Force.
- ANS Task Force members will submit self-nominations for first and second choice committees (Prevention, EDRR, Control and Restoration, Research, or Education and Outreach) as well as how many committees they are will to participate in (1 or 2 committees) by June 1.
- ANS Task Force co-chairs will review nominations and finalize committee membership.
- ANS Task Force co-chairs will seek clarification on committee structure and membership
- Committees will review outputs and develop annual work plans for the Goal by October 1.

Wednesday – May 8, 2019

1. Welcome

David Hoskins (U.S. Fish and Wildlife Service) and Jennifer Lukens (National Oceanic and Atmospheric Administration) welcomed attendees and thanked them for attending the meeting. They also thanked the Western Regional Panel for hosting the meeting as Leah Elwell, Elizabeth Brown, and Dennis Zabaglo and other Panel members spent a great deal of time working with on the agenda and meeting logistics. The Panel had prepared several informative presentations focused on ANS challenges and ongoing efforts in the West. They also organized the previous day's site visit to Lake Tahoe where participants had the opportunity to view ongoing ANS control efforts.

Hoskins reviewed the agenda, which included efforts to prevent the spread of invasive mussels, green crab monitoring and control, future implementation of the Vessel Incidental Discharge Act as well as updates on the National Invasive Species Council Management Plan, the U.S. Army Corp of Engineers' (ACOE) watercraft inspection station program, and ongoing efforts from the Department of the Interior (DOI). Time on the agenda was also available to review the outputs to the ANS Task Force Strategic Plan and take next steps to begin implementing the Plan.

Jennifer Lukens welcomed the group. She recognized the ANS Task Force members who volunteer their time to move ANS priorities forward as well as the Regional Panels and committees who have dedicated hours of time and expertise to ensure that the meeting action items are progressing and completed. Jennifer introduced Elizabeth Brown (Colorado Parks and Wildlife and Chair of the Western Regional Panel) and Joanne Marchetta (Tahoe Regional Planning Agency). Elizabeth and Joanne welcomed the group. Susan Pasko (USFWS, ANS Task Force Executive Secretary) introduced herself and reviewed the meeting logistics.

Self-Introductions

ANS Task Force members and audience members introduced themselves. The list below includes both in-person and call-in attendees.

Name	Affiliation
Aaron Martin,	U.S. Fish and Wildlife
Allen Pleus	Washington Department of Fish and Wildlife
Barak Shemai	U.S. Fish and Wildlife
Bob Wakeman	Wisconsin Department of Natural Resources
Chris Scianni	California State Lands Commission
Craig Martin	U.S. Fish and Wildlife
David Hoskins	U.S. Fish and Wildlife
Dennis Zabaglo	Tahoe Regional Planning Agency
Dolores Savignano	U.S. Fish and Wildlife
Don MacLean*	U.S. Fish and Wildlife
Elizabeth Brown	Colorado Parks and Wildlife
Erika Jensen	Great Lakes Commission
Erin Ewald	Taylor Shellfish
Erin Raney	Arizona Game and Fish Department
Greg Conover	U.S. Fish and Wildlife
Heidi McMaster	Bureau of Reclamation
Hilary Smith	The Department of the Interior
Holly Eddinger	U.S. Department of Agriculture, Forest Service
James Ballard	Gulf States Marine Fisheries Commission
Jason Ramos	California State Lands Commission
Jay Kilian	Maryland Department of Natural Resources
Jeanette Davis	NOAA
Jeffrey Herod	Bureau of Land Management
Jennifer Lukens	NOAA
Jeremy Crossland	U.S. Army Corps of Engineers
Joanne Grady*	U.S. Fish and Wildlife
Joanne Marchetta,	Tahoe Regional Planning Agency
John Darling	U.S. Environmental Protection Agency
John Wullschleger	National Park Service
Johnna Roy	U.S. Fish and Wildlife
Jonathan Thompson	California State Lands Commission
Joyce Bolton*	USDA, Agricultural Research Service
Julie Regan	Tahoe Regional Planning Agency
Justin Jackson,	Pyramid Lake Paiute Tribe
Karen McDowell*	San Francisco Estuary Partnership
Kevin Cute*	RI Coastal Resources Management Council
Kim Bogenschutz*	Iowa Department of Natural Resources
Kim Caringer	Tahoe Regional Planning Agency
Laura Korman	Lahontan Regional Water Quality Control Board
Laura Megill,	Nevada Department of Wildlife
Laura Whitney	U.S. Army Corps of Engineers
Leah Elwell	Invasive Species Action Network
Libby Yranski	National Marine Manufacturers Association
Linda Nelson	U.S. Army Corps of Engineers
Louanne McMartin	U.S. Fish and Wildlife Service
Madrone Ruggiero	Pyramid Lake Paiute Tribe
Margot Cumming	Chesapeake Bay Program
Mark Lewandarski	Maryland Department of Natural Resources
Martha Volkoff	California Department of Fish and Wildlife
Matt Neilson	U.S. Geological Survey
Meg Modley Gilbertson	Lake Champlain Basin Program

Meredith Gosejohan	Nevada Division of State Lands
Michael Carter	Department of Transportation, Maritime Administration
Michele Tremblay*	Northeast Aquatic Nuisance Species Panel
Mike Ielmini	U.S. Forest Service
Nathan Owens	Utah Division of Wildlife Resources
Nicole Dobroski	California State Lands Commission
Pam Fuller	U.S. Geological Survey
Paul Zajicek	National Aquatic Association
Peter Kingsley-Smith	South Carolina Department of Natural Resources
Raya Nedelcheva	California State Lands Commission
Robert Zeyer	Pyramid Lake Paiute Tribe
Roger Peka	U.S. Fish and Wildlife Service
Ron Lukens	Retired
Sarah LeSage	Michigan Environment, Great Lakes, and Energy Department
Susan Pasko	U.S. Fish and Wildlife Service
Thomas Boos	Tahoe Regional Planning Agency
Tim Campbell	Wisconsin Sea Grant
Wesley Daniel	U.S. Geological Survey
Zack Bradford	League to Save Lake Tahoe

* *On the phone*

2. Adoption of Agenda/Approval of Minutes

David Hoskins called for approval of the meeting agenda. The meeting agenda was approved.

There was a request to move the presentation on Vessel Incident Discharge Act to an earlier time to accommodate those that had to leave the meeting early. The agenda was shifted to accommodate this request.

David Hoskins called for approval of the meeting minutes from the December 2018 ANS Task Force meeting in Falls Church, VA. The minutes were approved unanimously without discussion.

3. Presentation: Lake Tahoe's Aquatic Invasive Species Program: Ten years of success and planning for the future

Dennis Zabaglo of the Tahoe Regional Planning Agency and Vice Chair of the Western Regional Panel provided an overview of the success of the aquatic invasive species (AIS) program at Lake Tahoe. Success has been achieved in large part due to embracing private-public partnerships and seeking innovative approaches to AIS challenges. Key areas for control have been Emerald Bay, the Tahoe Keys, and Sand Harbor. Lake Tahoe recently celebrated ten years without any new invasions as well as several localized eradication of existing species. Continuing that level of success will require new technology and collaboration.

4. Presentation: Preventing Spread of Dreissenids in the West

Elizabeth Brown of Colorado Parks and Wildlife provided an overview of the history of mussel invasions in the contiguous United States and recent efforts to prevent the expansion of quagga and zebra mussels in the West. The Western Regional Panel (WRP)'s Building Consensus in the West workgroup has been ongoing since 2012 to further zebra and quagga mussel management and concluded their efforts last fall. The WRP Executive Committee recently developed a report summarizing its process and related work products. The WRP also developed a Status Report for the Quagga Zebra Action Plan for Western Waters (QZAP). The WRP finalized both of these documents in April 2019 and is now considering developing a revised QZAP to guide future management priorities. A discussion followed the potential benefits of updating QZAP. David Hoskins said it would be timely and proactive to revise the Plan under the same approval process as the other Management and Control Plans. Others suggested an update may an opportunity to identify measureable objectives. A suggestion was made to expand the plan to a national scope and recognize geographical differences related to mussel

management. If QZAP were to be expanded nationally, input would be needed from federal agencies and other regional panels on management and research priorities. This effort would need to be led by the ANS Task Force and not the WRP. The focus of the QZAP is western prevention and containment, as the document was requested by Senator Feinstein to protect the West, and has a tie to critical western funding. There was concern that funding may be diluted for the West if the geographic reach of the plan was expanded. The discussion was tabled until Thursday morning to give time to consider options.

5. Update: NAS Database: New Invasions and Actionable Tools

Wes Daniel, U.S. Geological Survey, provided an update on the Nonindigenous Aquatic Species (NAS) Database. Since the last ANS Task Force meeting in December 2018, there have been 48 new invasions reported. Notable reporting included an expansion of Black Carp across the Mississippi River Basin and a sighting in West Virginia. Cuban Tree Frog populations have continued to expand north and west from Florida. The USGS NAS program is taking steps to transition big data into actionable and smart data by developing tools and maps for managers and stakeholders. New tools the NAS program have created include Flood and Storm Tracker (FaST) maps, an Alert Risk Mapper (ARM) tool, a systematic literature review of ecological, economic, and human health impacts of invasive and non-native species, and a new online tool, SEINeD, that will Screen and Evaluate Invasive and Non-native Data.

6. Presentation: Transboundary Management of European Green Crab

Allen Pleus, the Invasive Species and Ballast Water Unit Manager for the Washington Department of Fish and Wildlife gave a presentation on the Salish Sea Transboundary Action Plan for Invasive European Green Crab (Plan). The Plan is a coordinated and collaborative response to incursions of European green crab (EGC) that pose a risk of harming or threatening the environmental, economic, or human resources within the shared Washington State and British Columbia waters of the Salish Sea. The current response to early detections of EGC in the Salish Sea is a success story seldom seen in the world of aquatic invasive species management as groups are working proactively to understand, identify, and prevent further incursions of EGC before they take hold and cause the dramatic impacts that have been seen on the East Coast of the United States and elsewhere around the globe. They are seeking signatures on the Plan from partners and stakeholders, and working to secure short-term funding for Early Detection/Rapid Response and need long-term funding for management.

7. Presentation: Assessing vectors of Aquatic Invasive Species in Alaska.

Aaron Martin, the Regional Invasive Species Coordinator for the USFWS in Alaska and a member of the Arctic Council's Arctic Invasive Alien Species Strategy Implementation Working Group, gave a presentation on collaborative efforts to assess the risk of new introductions and initiate prevention efforts at critical control points in Alaska. Alaska is particularly vulnerable to the expansion of aquatic invasive species (AIS) because of rapidly changing habitat suitability caused by shifting weather conditions, altered hydrologic regimes, and increasing development. Fortunately, there are relatively few AIS in Alaska at this time, although new infestations are found each year. This presentation summarized collaborative efforts to assess the risk of new introductions, and spread of AIS currently in Alaska, via freshwater and marine watercraft as well as floatplanes. The presentation illustrated that Alaska is significantly connected to high-risk regions of the world, and prevention efforts are being initiated at critical control points.

8. Decisional: State Management Plan Approvals: Wisconsin and North Dakota

- (a) Wisconsin: Bob Wakeman from the Wisconsin Department of Natural Resources provided a brief overview of the revised Wisconsin ANS Management Plan and its revision process. The Plan is pathway focused and includes priorities for communication and strengthening inter-state partnerships.

Comment: On p. 52 –Hazard Analysis and Critical Control Point (HACCP) is not widely adopted by the aquaculture industry; consideration should be given to strengthen relationships with this group.

Comment from Don Maclean (USFWS, Coordinator for the State/Interstate ANS Management Plans grant program): The first Wisconsin ANS Management Plan was approved in 2003. This revision was put through preliminary review and most feedback was incorporated.

Decision: A Motion for approval was made and seconded. There was no further discussion; all were in favor: The revised Wisconsin ANS Management Plan was approved.

- (b) North Dakota: Don Mclean provided an overview of the North Dakota revised plan. The revised plan has been signed by the Governor and was sent to USFWS. The North Dakota AIS Coordinator misunderstood that ANS Task Force had to approve revised plans; accordingly, the revised Plan had no input from ANS Task Force. A representative from North Dakota was unable to attend this meeting.

Comments (David Hoskins): The ANS Task Force has not submitted formal comments to the North Dakota Plan; thus it is pre-mature to bring the Plan for formal approval of ANS Task Force. The ANS Task Force should provide comments to Don MacLean; once incorporated North Dakota can submit the plan for approval during the fall meeting.

Q: Has there been any exchange with North Dakota?

A: The Plan was sent to all on ANS Task Force for comment. Thus far, USFWS has only received comments from one ANS Task Force member.

Q: Is North Dakota aware comments are coming?

A: Yes, but they are not sure if they will be able to incorporate them since the Governor already signed off on the plan.

Q: How will it affect funding this year?

A: It will not, since they have a current approved plan.

9. Informational: Western States Ballast Water Management Programs and the Vessel Incident Discharge Act (VIDA)

Allen Pleus, the AIS and Ballast Water Unit Manager for the Washington Department of Fish and Wildlife, along with Nicole Dobroski, Assistant Chief of the Marine Environmental Protection Division for the California State Lands Commission and the Commission's Marine Invasive Species Program Manager, provided an overview of VIDA and how it may alter state management of vessel AIS vectors. The President signed VIDA on December 4, 2018, which marked a major turning point in not only ballast water management, but also the management of over 30 other "discharges incidental to the normal operation of a vessel." VIDA is the culmination of over a dozen years of congressional negotiations among states, the regulated industry, environmental organizations, and Federal regulatory agencies. Successful implementation of VIDA will require strong state/Federal co-management to best protect state and regional marine resources from AIS and water quality risks. VIDA establishes the EPA as the Federal lead in establishing water quality standards, whereas the USCG will lead the monitoring, inspection, and enforcement of standards. Under VIDA States cannot have more stringent standards than the Nation (but can petition for more stringent Federal standards). States that charged any type of applicable discharge regulation fee pre-VIDA will be allowed to continue to collect management fees, although VIDA sets a cap on the fee amount. Small commercial (<79ft) and fishing vessels will be regulated under VIDA for ballast water; Consultation with States is required by the EPA and USCG during establishment of standards and requirements. A working group will be formed to develop real-time ballast water data sharing and improve dissemination of National Ballast Information Clearinghouse ballast water reporting data and annual reports. A Coastal AIS Mitigation Grant program is established and will be administered through the National Fish and Wildlife Foundation to provide at least \$5 M in grants each year. The USEPA and USCG held webinars on May 7 and 15 and a listing session is scheduled for May 29-30 to provide public education/outreach on their interpretations of VIDA requirements and implementation timelines.

Q: What is ANS Task Force role in implementing the non-regulatory portions of VIDA?

A: ANS Task Force should review the legislation to determine its roles and responsibilities.

10. Regional Panel Recommendations

Western Regional Panel:

1. In recognition of the passage of the Vessel Incidental Discharge Act (VIDA) signed by the President on December 4, 2018, we respectfully request:
 - The U.S. Environmental Protection Agency (EPA) and the U.S. Coast Guard (USCG) coordinate with the States to implement VIDA in a timely manner;
 - EPA, USCG and the ANS Task Force provide clarity to the states on the intent and timeline for the Intergovernmental Response Framework provision; and
 - Encourage, in coordination with states, a speedy process for development, full \$5 million appropriation as requested, and implementation of the AIS Coastal Mitigation Grant Program and Mitigation Fund.

Response: The USCG and EPA appreciate the ANS Task Force and regional panels' role in implementing the VIDA. The agencies intend to carry out the statutory requirements in a deliberate manner, and with appropriate outreach to States and other stakeholders. VIDA represents a significant new set of regulatory, technical, and enforcement programs. The USCG and EPA are addressing specific directives as resources allow, and will incorporate new requirements into our existing programs to protect the marine environment and facilitate safe commerce. The agencies will continue to keep stakeholders informed of Federal agency developments through the ANS Task Force, our websites, and other outreach opportunities.

2. Funding: Maintain and/or increase financial allocation to the panel(s) to support annual meetings, coordination and panel activities.

Response: The USFWS recognizes that Regional Panels provide essential coordination and work production for the Task Force at the Regional and local levels; accordingly, an increase of \$6 K per panel will be awarded to each panel for FY 19.

3. Funding: maintain and/or increase financial allocation to ANS Task Force approved state management plans.

Response: Funding for the State and Interstate ANS Management Plan Grant Program increased from \$1M to \$2M in FY17, and these increase level has been maintained for FY19. This year 43 States applied; each receiving approximately \$46,000.

4. Funding: Maintain funding to support highest priority components of QZAP.

Response: The USFWS continues to support the implementation of QZAP through the funding of the State/Interstate ANS Management Plans and through grant support for projects to control the spread of invasive mussels.

Mid-Atlantic Regional Panel

1. Support and facilitate the transfer of the successful strategies, tools, and assets of the Chesapeake Nutria Eradication Partnership to Virginia and North Carolina to continue the eradication of this harmful aquatic invasive species;
2. Advocate for the continued federal financial allocation of 1.5 – 2 million dollars annually for seven years to eradicate nutria and protect coastal resources in these states; and
3. Inform agencies and partners about the tremendous financial efficiency in protecting wetlands by eradicating nutria.

Response: The Chesapeake Bay Nutria Eradication Project concurs with the Mid-Atlantic Panel that nutria eradication efforts should be expanded into Virginia and North Carolina to prevent the spread of nutria back into Maryland. Multiple rounds of saturation monitoring in the Chesapeake Bay to ensure eradication is successful is scheduled to be completed by December 2020 within the designated watersheds of the Delmarva peninsula. This effort has been ongoing since the early 2000's at a cost of

over \$20 million in total. This extension into neighboring Virginia and North Carolina will ensure the success of this investment in the Chesapeake Bay region.

There were no additional Regional Panel Recommendations.

11. Update: Status on Action Items from Last Meeting

Susan Pasko provided an overview on the status on the action items from the December 2018 meeting.

List of Action Items from the December 2018 ANS Task Force Meeting

Action Item	Status / Notes
ANS Task Force members and regional panels will provide formal comments on the ANS Task Force Report to Congress for 2016 - 2017 by January 31, 2018.	Complete: Request was sent out following the December meeting. Report is currently going through final stages of review.
USFWS staff will coordinate with appropriate members to respond to the GLP / MRBP recommendation on grass carp	Complete: The USFWS worked with the regional office to consider potential actions to address recommendations #6 – 8 contained in the MICRA report to the USFWS entitled “The use of grass carp in the United States: Production, triploid certification, shipping, regulation, and stocking recommendation for reducing spread throughout the United States”. A formal response has been provided to the panels.
<p>Goal Teams will by Feb. 15:</p> <ul style="list-style-type: none"> • Develop a concise description of how the ANS Task Force will implement each of the Objectives within that goal and the constituent strategies as appropriate which should include key outputs. • Prioritize items listed above and suggest who might be best equipped to accomplish the work. <p>Make recommendations for refinements to strategies (as required for implementation).</p>	Complete: This action was delayed by the government shut down and the deadline for the Goal Teams was extended to March 25. Each Goal Team provided a prioritized list out key outputs and recommendations to the associated strategies and objectives
ANS Task Force will consider recommendations provided by Goal Teams in deciding whether to make revisions to the draft Strategic Plan.	Complete: Recommendations from the Goal Teams were incorporated into the Strategic Plan. The revised draft was reviewed by the co-chairs and distributed to the ANS Task force members and regional panels prior to the meeting.

Report to Congress

Hoskins stated that a draft of the ANS Task Force Report to Congress was sent out prior to the meeting. Minor comments to the report were made based on input received after the December 2018 meeting. The Plan is now ready for final approval from the ANS Task Force.

Decision: The ANS Task Force 2016-2017 Report to Congress was unanimously approved; No discussion.

12. Decisional: ANS Task Force Strategic Plan

David Hoskins: At the December 2018 ANS Task Force meeting, breakout sessions were held to discuss the

implementation of the ANS Task Force Strategic Plan for 2020 – 2025. These discussions lead to the formation of Goal Teams and an action item for each Team to continue their discussion following the meeting and make recommendations for any refinements to the goal’s objectives and strategies that may be required for implementation. The ANS Task Force Strategic Plan was conditionally approved at last meeting pending work from the Goal Teams. There were modest changes to Strategic Plan based on Goal Teams recommendations. The USFWS and NOAA made final edits, and the revised Strategy was sent to the ANS Task Force members and regional panels prior to this meeting.

Susan Pasko reviewed the changes. There were no major changes, yet several strategies were repositioned or reworded for clarity or to streamline the associated objective. The proposed changes from the Goal Team are summarized in the table below

Goal	Changes
Coordination	The Goal Team identified several strategies that better serve as outputs. In these circumstances the strategy was reworded to reflect “what” needs to be done, which correlates with a recommended output to explain “how” the particular strategy may be accomplished.
Prevention	The Goal Team identified several strategies that better serve as outputs. These actions were removed from the plan as strategies, and became a recommended output to other existing strategies within the Goal.
Early Detection / Rapid Response	The Goal Team made recommendations to streamline the goal and remove strategies that were previously completed. Other strategies were removed to become a recommended output to other existing strategies within the Goal.
Control and Restoration	The Goal Team identified several strategies that better serve as outputs. These actions were removed from the plan as strategies, and became a recommended output to other existing strategies within the Goal.
Research	The Goal Team made recommendations to remove specific research elements in order to focus on a process to develop annual regional and national priority ANS research lists.
Education and Outreach	The Goal Team recommended that the last strategy be reworded to expand ANS Task Force participation outside of National Invasive Species Awareness Week (NISAW).

Decision: The ANS Task Force Strategic Plan for 2020 – 2025 was unanimously approved; No discussion.

13. Discussion: Coordination Goal Output Discussion

Susan Pasko walked through the recommended Coordination Goal Outputs, which consist of primarily holding ANS Task Force Meetings and establishing member roles and responsibilities. There were questions raised about the process for addressing ANS Regional Panel recommendations, addressing gaps in subject matter expertise, reporting requirements, and measuring efficiency and effectiveness. A need for bylaws was identified to establish the role of members and regional panels and operating procedures of the ANS Task Force. There

was also a recommendation to include an output to update the guidelines used to draft and revise State and interstate ANS management plans.

14. Public Comments.

No public comment.

Thursday, May 9, 2019

15. Welcome, Day 2

The ANS Task Force co-chairs welcomed attendees to Day 2 of the meeting.

16. Discussion: Prevention Goal Output

Craig Martin (USFWS) reviewed the recommended outputs from the Prevention Goal. There was agreement that the outputs seemed appropriate and feasible, although there was a recommendation to consider strategies to better manage pathways in addition to organisms in trade. There was an additional recommendation to consider aquatic plants in any pathway analysis, rather than restricting focus to fish or wildlife.

17. Discussion: Early Detection / Rapid Response (EDRR) Goal Output

Hillary Smith (DOI) reviewed the recommended EDRR Goal outputs. There was a discussion about guidance for citizen science, use of incident command system, and rapid response planning and funding. There was recognition by the ANS Task Force that there may be some overlap between the Prevention and EDRR Goals, particularly with risk analysis and horizon scanning. It was also acknowledged that outside groups have independently worked on several related projects (e.g., citizen science guidance, eDNA standards, decision-making criteria, ICS table top exercises), which should be incorporated into ANS Task Force work projects. It was also suggested the guidance for developing rapid response plans could be included in the revision for the State and Interstate ANS Management Plan guidance (Prevention Goal).

18. Discussion: Control and Restoration Goal Output Discussion

Susan Pasko walked through the recommended Control and Restoration Goal Outputs. There was discussion about how priority species lists created under the Prevention Goal may inform the development of new Management and Control Plans. There was also a suggestion to correlate guidance to develop new Management and Control Plans with that for the State and Interstate ANS Management Plans. Further discussion of this goal focused on identifying gaps for control that may also be considered for an ANS research priorities list.

19. Discussion: Research Goal Output

Jeanette Davis (NOAA) provided an overview of the recommended Research Goal Outputs. The intent of this goal is to promote priority research needs identified by the ANS Task Force and to track and disseminate research information. There was discussion about internal development and communication of research priorities and the ability of this list to influence agency priorities.

20. Informational: VIDA Timeline

As a follow up to the Western Regional Panel recommendation on Day 1, John Darling (EPA) provided a summary of the VIDA legislation and activity. VIDA restructures the way the EPA and the USCG regulate incidental discharges from commercial vessels into waters of the United States and the contiguous zone. It requires the EPA to develop new national standards of performance for commercial vessel discharges within two years (~December 2020) and the USCG to develop corresponding implementing regulations two years thereafter (~December 2022). The EPA standards will be developed for approximately 30 different incidental discharges. The standards will be generally required to be at least as stringent as the requirements in the EPA

2013 VGP, and may be numeric, best management practices, or a combination of the two. The EPA is required to develop national standards of performance in consultation with interested state Governors. The USCG regulations may include requirements governing the design, construction, testing, approval, installation, and use of devices to achieve the EPA national standards of performance. Upon completion of the USCG implementing regulations, states can apply to the EPA to establish a no-discharge zone for one or more of the discharges from vessels regulated under VIDA. The EPA and the USCG plan to host a series of informational webinars, listening sessions, and consultations in the Spring and Summer of 2019 and again after the proposed rule is published in January 2020. The EPA is developing a webpage to disseminate information about VIDA that will be accessible from EPA's Vessels, Marinas, and Ports homepage.

21. Discussion: QZAP

During the previous day, there was a discussion about the potential revision and expansion of QZAP. There was agreement about the need for a National plan, but concerns were raised about diluting funding to the Western states. In the West, the efforts are primarily prevention focused; however, in the Great lakes regions, activities are more focused on control and eradication. Expansion of the plan would require the involvement from the other panels. Panel will need to consider if such efforts would be beneficial. Elizabeth Brown (WRP Chair) will communicate perspectives from the ANS Task Force to the WRP regarding the revision and potential expansion of QZAP and provide a recommended approach to the ANS Task Force.

22. Discussion: Education and Outreach Goal Output

Susan Pasko provided an overview of the recommended Education and Outreach outputs. As ANS Task Force and regional panel members typically have a natural resources management background, there was a discussion about seeking marketing expertise outside the ANS Task Force to conduct an assessment of ANS campaigns. Further discussion focused on developing a process to incorporate social science needs into the research priorities list (Research Goal). Members also agreed that templates with consistent information to include in presentations and briefings would help increase the visibility of the ANS Task Force.

23. Update: National Invasive Species Council Management Plan

Stas Burgiel, of the National Invasive Species Council (NISC) Secretariat, provided an update on recent activities including status of the NISC 2016-2018 Management Plan, development of the next NISC Management Plan, ongoing coordination efforts, and other relevant priorities. Due to reduced budgets, the Invasive Species Advisory Committee is being suspended, and NISC is looking for other ways to obtain public input. The Management Plan is undergoing revision and will have two parts: Management Plan and Operational Plan. The NISC will be reaching out to ANS Task Force as it is being drafted for their input. \

24. Discussion: ANS Task Force Structure

The ANS Task Force members discussed options for its committee structure under the new Strategic Plan and process for development of work plans. It was determined that five committees should be formed (Prevention, EDRR, Control and Restoration, Research, and Outreach and Education). The Coordination Goal focused on internal operations and procedures and can be managed by the Executive Secretary. There was agreement that ANS Task Force members will submit a self-nomination for participation on their preferred committee(s) by June 1. Once committee are formed, they will be tasked with developing a work plan for FY 20 by October 1.

25. Discussion Summary / Next Steps

A list of final action items and decision items was discussed (see above).

26. Update: Department of the Interior

Hilary Smith, Senior Advisor for the DOI, provided an update on select initiatives underway at the DOI. Safeguarding the West invested at least \$13.8 M in FY2018 across six bureaus to address quagga and zebra mussels. Most of the activities under the Safeguarding the West initiative are completed, but some work is still

underway. A 2018 progress report for the Safeguarding the West initiative is available online. The DOI has been directed by Congress to develop a joint federal/state Incident Command System (ICS) that would allow for cooperative and rapid response to new detections of invasive mussels in the West. The group working in this effort determined that the focus should be more broadly on response, of which ICS is a tool, and enhancing capacity for response, environmental compliance, and leveraging resources. The intent is to build on existing efforts and produce deliverables that are complementary and value-added. Other DOI activities include developing proposed categorical exclusions under the National Environmental Policy Act (NEPA) for some invasive species activities, as appropriate, as part of regulatory reform. The DOI is also taking steps to implement invasive species provisions in the John Dingell Act which involves developing 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. The President's budget proposed ~\$105 M for DOI to address invasive species. This includes ~\$10.8 M to address invasive mussels of which \$1 M is an add to BLM for addressing invasive mussels in the Lower Colorado River and Lake Havasu.

27. Presentation: Plants, Inspection Stations, and Research - How did we get here

Jeremy Crossland, U.S. Army Corp of Engineers Program Manager for Natural Resources and Invasive Species, presented an overview of the Aquatic Plant Control Program and the Water Resources Development Act (WRDA) authorizations that have modified the program authorities in respect to watercraft inspection stations, AIS research, and Early Detection and Rapid Response efforts. Crossland explained the scope and challenges for program activities related to inspection stations, research, EDRR, and aquatic plants. Under WRDA, invasive species management efforts in the Columbia Basin have been expanded to additional basins including watercraft inspection stations and rapid response kits. There was been a 100% increase in watercraft inspection stations in the Columbia River Basin between 2016 and 2018, leading to 188 intercepts of quagga/zebra mussels on vessels. Future efforts will focus on expanding efforts in the Upper Missouri, South Platte, Upper Colorado and Arkansas Rivers.

28. Presentation: Biofouling Management in the Pacific: Managing Risks and BMP development

Chris Scianni, Senior Environmental Scientist with the California State Lands Commission's Marine Invasive Species Program and the Chair of the Coastal Committee of the Western Regional Panel on Aquatic Nuisance Species, provided an overview of biofouling as a pathway for ANS. The Coastal Committee of the Western Regional Panel has identified vessel biofouling as a largely unregulated mechanism for the introduction of non-native species into the Pacific coastal region. There are currently 310 non-indigenous invertebrate and algae species found along the west coast, many along the California coast. Marine biofouling organisms associated with the underwater surfaces of vessels can be transported from port to port as their host vessel or other mobile structure engages in recreation, commerce, or general movements between regions. The Coastal Committee prepared a biofouling white paper that identifies introduction risks associated with different vessel types and management gaps that can be addressed through coordinated action of the Pacific region states and British Columbia. Recommendations include regional consistency in (1) a regulatory framework for commercial merchant and passenger vessels; and (2) best management practices for management of recreational vessels, commercial fishing vessels and mobile marine infrastructure.

Q: Can you sell a boat that is not pre-painted?

A: Yes, the coating is designed to release small amount of copper over time; it will need to be refreshed if it works using biocides.

Q: Why are boats not already painted?

A: There are many different types of coatings designed for different profiles. In addition, there are environmental issues associated with the release of coatings.

29. Presentation: MARAD Biofouling Research

Michael Carter, Acting Associate Administrator for Environment and Compliance of U.S. Department of Transportation Maritime Administration (MARAD), provided an overview of the Maritime Administration's

Maritime Environmental and Technical Assistance (META) program and their work with in-water cleaning of biofouling on hulls over the past two years. MARAD owns and operates ships and trains mariners. They are not a regulatory or resource agency, but use their ships for testing technologies in response to: (1) invasive species, ballast water, and hull biofouling, and (2) air emissions, alternative energy, and energy analysis. The META program demonstrates technologies to show the value of investing in them and provide information to stakeholders to make investment decisions, reduce costs, etc. Commercial ship biofouling presents significant problems for the maritime industry including increased drag, fuel consumption, and greenhouse gas emission as well as the potential of introduction of ANS. New hull cleaning technologies target biofouling removal and capture are being developed. MARAD has been evaluating in-water cleaning systems to and lessen use of dry docks; however, there are challenges with stability, storage, and mariner safety. A full report of these evaluations can be found at: see www.maritime-enviro.org

Q: Is open ocean hull husbandry possible?

A: Using humans may be hazardous. It may work with robotics, however costs are high and efficiency is poor.

Q: What is the technology time line for in water cleaning?

A: Regulations may take over 5 years. Hull paints are improving so they contain less biocides, but we need to know how effective they are in reducing biofouling. There are additional delays as much of the ongoing work is being performed outside the United States.

30. Discussion: Member and Panel Updates

Written updates from the ANS Task Force members and regional panels were distributed prior to the meeting. Time was given for ANS Task Force members to ask for additional information or clarification on any of the updates. There were no questions or comments.

31. Next Meeting

Tentatively planned for November 5-7, 2019 in the Washington, DC area.

32. Public Comments

There were no public comments.

The May 2019 ANS Task Force Meeting was adjourned.