

AQUATIC NUISANCE SPECIES TASK FORCE: MINUTES OF THE 2014 NOVEMBER MEETING

MAY 7-8, 2014

On May 7-8, 2014, the Aquatic Nuisance Species Task Force (ANSTF) held a two-day meeting at USFWS headquarters in Arlington, Virginia. Decisions and action items are listed below, followed by a summary of the meeting.

Decisions

The ANSTF made the following decisions:

- The ANSTF approves the revised Tahoe ANS Management Plan.
- The ANSTF approves the Snakehead Management and Control Plan.

New Action Items

The ANSTF assigned the following action items:

- Put Model Legislation on ANSTF Web Site
- Include USFWS Wildlife and Sport Fish Restoration Program (WSFR) resources on the ANSTF website
- Provide a WSFR briefing at the Fall 2014 Meeting
- Association of Fish and Wildlife Agencies has expressed an interest in expanding Caucus membership and communicating proactively. Erika Jensen offered to assist. Those interested in the ANSTF Outreach Committee should contact Doug Jensen or Elizabeth Brown.
- Outreach Committee will look at evaluating the effectiveness of SAH! and Habitattitude.
- Craig Martin will set up a webinar with American Boating and Yachting Council (ABYC) to discuss the Boat Design Workshop proposal and funding need.
- Members interested in helping with National Invasive Species Awareness Week (NISAW) contact Lori Williams
- Explore alternatives to the term Asian carps. Discuss at the next meeting?
- Laura Norcutt will let the members know when the website issues are corrected (expert database links).
- Bill Bolen and Kelly Baerwaldt will work with the FWS Communications Branch to enhance the eDNA Clearinghouse Proposal and present results at Fall 2014 meeting for ANSTF approval for the ANSTF website to host the eDNA Clearinghouse.
- Provide comments on Pathways Diagrams to Stas Burgiel by June 30, 2014. Send copies to ANSTF.
- Stas Burgiel will provide the Climate Change Report to the ANSTF and request comments by July 31, 2014. Send copies to ANSTF.
- The joint ANSTF Prevention Committee will determine best way to approach working with industry to develop Fracking Best Management Practices's. (Those interested include MAP, EPA)
- Ballast Water Workshop Report will be posted on ANSTF website.
- ANSTF Panels need to let Laura know what vacancies exist on their respective Panels. Laura will follow-up to determine strategy about how to move forward.

- NOAA will work with the WRP to provide information on the Pacific states tunicate workshop.
- Provide comments on the Lionfish Plan to James Ballard by June 8th, 2014.
- Mississippi River Basin Panel and Mississippi Interstate Cooperative Resource Association will send out info for Diploid/Triploid Grass Carp report webinar information.
- Report to Congress
 - Provide accomplishment reports to Susan Pasko by June 10
 - Review draft report by end of July
 - Refine report and develop outreach plan with Congressional and communications folks (Peg offers to host)

1. Welcome and Preliminary Business

Laura Norcutt welcomed everyone at 9:30am. She introduced David Hoskins, Assistant Director for Fish and Aquatic Conservation at the U.S. Fish and Wildlife Service (FWS). David welcomed everyone and thanked all for attending. David stated that he has worked in the industry for 25 years and is aware of the issues that we're dealing with. Budgets are tight and financial resources are scarce and he appreciates our understanding. FWS is moving in July and will have new space and this is our final meeting in Arlington, VA. David turned it over to Peg Brady, NOAA Policy Liaison to ANSTF.

Peg thanked everyone for joining and making it in, especially thanked all at FWS for taking over after Susan Mangin's departure. Peg is acting co-chair for Mark Schaefer, Assistant Secretary of Commerce for Conservation and Management and NOAA Deputy Administrator, until tomorrow afternoon, as he was overtaken by other work today. Mark is excited to talk about the lionfish plan and other NOAA doings. Peg recognized the efforts undertaken within and between the regional panels, and thanked Clarence Fullard, Knauss Sea Grant Fellow and Aquatic Invasive Species Analyst, for helping the team and attending panel meetings. Peg thanked Laura for steering us through the next two days and thanked her for the extra effort she had to put in. Laura introduced herself as the acting executive secretary for the ANSTF, took care of a few housekeeping items, and announced the public comment period from 4:50-4:55 today and 4:30 -4:35 tomorrow.

Self Introductions

ANSTF members and audience members introduced themselves. The list below includes actual and call-in attendees:

Name	Affiliation
John Adey	American Boating and Yachting Council (ABYC)
Shawn Alam	Department of the Interior
Phil Androzzi	National Invasive Species Council
Kelly Baerwaldt	U.S. Army Corps of Engineers (now USFWS)
James Ballard	Gulf States Marine Fisheries Commission
Kim Bogenschutz	Iowa Department of Natural Resources
Brian Bohnsack	U.S. Fish and Wildlife Service

Bill Bolen	U.S. Environmental Protection Agency
Dave Britton	U.S. Fish & Wildlife Service
Elizabeth Brown	Colorado Parks and Wildlife
Stas Burgiel	National Invasive Species Council
Tim Campbell	Wisconsin Sea Grant
Dorn Carlson	National Oceanic and Atmospheric Administration
Danielle Chesky	Northeast-Midwest Institute
Al Confrancesco	U.S. Army Corps of Engineers
Greg Conover	U.S. Fish & Wildlife Service
Luci Cook-Hilderth	Texas Parks and Wildlife Department
John DeKam	Bay Metro Water Treatment Plant
David Dickerson	National Marine Manufacturers Association
Paul Egrie	USDA APHIS Veterinary Services
Alan Ellsworth	National Park Service
Dan Farrow	National Oceanic and Atmospheric Administration
Fernley Amanda	Antero Resources
Flavio Fernandes	Smithsonian Environmental Research Center
Clarence Fullard	National Oceanic and Atmospheric Administration
Pam Fuller	USGS, Southeast Ecological Science Center
Jason Goldberg	U.S. Fish & Wildlife Service
Brian Goodwin	American Boating and Yachting Council (ABYC)
Phyllis Green	National Park Service
Erika Jensen	Great Lakes Commission
Susan Jewell	U.S. Fish & Wildlife Service
CDR Ryan Allain	U.S. Coast Guard
Ron Johnson	National Association of State Aquaculture Coordinators
Carolyn Junemann	Maritime Administration
Katie Kalinowski	Western Governors' Association
Cindy Kolar	U.S. Geologic Survey
Mike Ielmini	U.S. Forest Service
Don Maclean	U.S. Fish & Wildlife Service
Mark Malchoff	Lake Champlain Sea Grant & Lake Champlain Research Institute
Craig Martin	U.S. Fish & Wildlife Service
Tom McMahan	Arizona Game and Fish Department
Whitman Miller	Smithsonian Environmental Research Center
Mark Minton	Smithsonian Environmental Research Center
Meg Modley	Lake Champlain Basin Program
John Moore	Bureau of Land Management
Adrianna Muir	Department of the Interior
John Navarro	Ohio Department of Natural Resources
Tammy Newcomer	National Oceanic and Atmospheric Administration

Susan Pasko	National Oceanic and Atmospheric Administration
Caroline Ridley	U.S. Environmental Protection Agency
John Sagle	U.S. Customs and Border Protection
Mark Schaefer	National Oceanic and Atmospheric Administration
Ron Smith	U.S. Fish & Wildlife Service
Craig Springer	U.S. Fish & Wildlife Service
Lisa Treichel	Department of the Interior
Michelle Tremblay	Northeast Aquatic Nuisance Species Panel
Michael Trulson	U.S. Department of State
Lisa Van Alstyne	U.S. Fish & Wildlife Service
Bruce Vogt	National Oceanic and Atmospheric Administration
David Wethington	U.S. Army Corps of Engineers
Sarah Whitney	Pennsylvania Sea Grant
Laura Norcutt	U.S. Fish & Wildlife Service
Carrie Wilkinson	National Park Service
Lori Williams	National Invasive Species Council
Bobby Wilson	Tennessee Wildlife Resource Agency
Mary Kate Wood	Wake WorX LLC
Scott Wood	Wake WorX LLC
John Wullschleger	National Park Service
Dennis Zabaglio	Tahoe Regional Planning Agency
Susan Shingledecker	Boat USA
Jason Harmon	West Virginia Department of Environmental Protection
John Darling	United States Environmental Protection Agency

2. Adoption of Agenda/Approval of Minutes/Review of Previous Action Items

Following introductions, David Hoskins called for approval of the current meeting agenda and the meeting minutes from the November 2013 ANSTF webinar in Silver Spring, Maryland. Mike Ielmini moved that the agenda be approved. Bill Bolen seconded the motion, and the agenda was approved. Al Confrancesco moved that the minutes be approved. Meg Modely seconded the motion, and the minutes were approved. The action items from the previous (May 2014) ANSTF meeting were then reviewed:

- Executive Secretary will provide ANSTF members the Invasive Species Caucus membership list. (Completed)
- Executive Secretary will follow-up with Brian Goodwin (American Boat and Yacht Council) about establishing a committee to address recommendations for reducing the spread of AIS through boat designs. She will notify the ANSTF members of any opportunities to volunteer for this committee.
 - Ongoing.
- Provide Brian Goodwin with Colorado's inspection and decontamination manuals.

- Done.
- Executive Secretary will request funding information from Panels followed up by a conference call.
 - Done.
- Executive Secretary will remind ANSTF members of the opportunity to volunteer for the Outreach Committee and NISAW Planning Committee.
 - Done.
- Bill Bolen will provide an eDNA toolkit.
 - Done.
- Presentations from the fracking industry will be sought for the Spring ANSTF meeting.
 - Done.
- FWS will work with Wildlife Forever to improve communications on Stop Aquatic Hitchhikers! (SAH!)
 - Done.
- Ballast Water Workshop Report will be disseminated to the ANSTF for review.
 - Done.
- The co-chairs will provide guidance to the ANSTF members and panels on input for the 2013 Report to Congress.
 - Ongoing.
- NOAA will follow-up with the WRP on a Pacific states tunicate workshop.
 - Ongoing, Peg Brady is collaborating with folks on the Western Regional Panel to make this happen. Peg will provide an update at the next meeting.

3. Discussion: FY14 ANSTF Budget Overview

David Hoskins gave an overview of the ANSTF budget situation. There is a common theme to the work he's been doing for the last year due to the sequester cuts. There was bright news on the horizon because of the omnibus, it stemmed the bleeding, but FY14-15 look to be challenging budget years for all fed members, including FWS which makes collaborative work that much more important. We would like to give an overview from our perspective on the FY14 and 15 budget and welcome additional insight from our members. We will also provide a budget outlook for FWS Invasive Species Program Funding.

Our FY 2014 budget is similar in some ways to the budget that was enacted for FY 2013. There is a continued high priority placed on taking actions to address quagga and zebra mussels and Asian carp. While FY 2014 funding for State ANS Plans is largely unchanged from FY 2013, we anticipate more plans to be approved this year, so the net amount that each State receives in matching funds will decline slightly. Specific allocations have not yet been determined.

The President's Budget for FY 2015 continues this trend. The Branch of Aquatic Invasive Species has three primary focus areas: national coordination; prevention; and control and management. While the Service has the authority to manage other aquatic species, the funding requests focuses most of the AIS Program's efforts on addressing threats from zebra and quagga mussels, with a significant increase of \$4.4 million requested to manage Asian carp.

Despite the continued success and popularity of the State/Interstate ANS Management Plan grant Program, the amount of funding for each individual plan has declined over the years. This

is because the funding must continually be divided into smaller and smaller pieces as new plans are approved by the ANS Task Force; and the AIS Program funding for State Plans has decreased from its highest funding in FY 2011, though the FY15 request helps restore some of those funds. To give a clearer picture of the program's history, there are almost five times as many plans as there were in 2001, yet each individual plan receives approximately 75 percent less funding than they did in 2001. If all 43 currently eligible plans seek funding in FY15, each State would receive approximately \$23,000.

The Administration had to make some hard decisions in its FY 15 budget request. The request means FAC may not be able to address species such as ruffe, mitten crab, brown tree snake, and New Zealand mudsnail as quickly. In light of extremely limited resources, interjurisdictional coordination will be even more crucial than before. The Service will continue to provide technical expertise to States and others, establishing links to the best expertise available to address immediate AIS threats, and monitoring the distribution and control of established invaders. The Service will continue to provide coordination for critical AIS efforts, such as the 100th Meridian Initiative, FAC's base zebra/quagga mussel response.

Where feasible, the Service will also continue to lead early detection and rapid response efforts that benefit trust resources and our partners, including incident command and development of cutting-edge molecular-based field tools, such as eDNA, providing decision-makers with better surveillance information to track the leading edges of invasion and help contain species before they can spread.

We recognize and appreciate the great work that the States are doing, and will continue to seek opportunities to improve leveraging. In the meantime, as budgets continue to tighten, we are trying to find new efficiencies, such as improved screening and administrative tools, which will allow us to achieve results more quickly and effectively on-the-ground. We're finding new ways to work with you and other partners to prevent new introductions and streamline processes that will save time and resources down the road.

Comments:

James Ballard asked about panel funding, will it stay level at \$40,000. David: said it is constant at \$40,000 in 14 and hopes to keep it going into 15, but doesn't know how Congress will respond to President's budget.

John Moore: With respect to \$1 million for state plans, is there any discussion on revisiting the way it is divided? David: It is being divided up into smaller and smaller pieces, but the revenue is not in FWSs control. FWS needs to get ahead of the curve and focus on prevention as it is the best way to use our funds. It is unfortunate that funding doesn't keep pace with approval of plans.

Peg thanked David for discussion budget and asked what the status of the executive secretary position is. David: We need to fulfill that responsibility but are looking at alternative ways to do that in the short and long term. Funding is appropriated to headquarters and then allocated to fields. HQ budget for AIS is particularly thin and is running at a deficit. Fisheries and Aquatic Conservation (FAC) was reconstructed around the six programs and became BAIS was running at a deficit, David would like to see the branches operating at a break even basis, and because of that it seems unlikely that they will fill Susan's position. They're trying to figure out how to fill those responsibilities with the current staff because we need to live within our budgetary means.

Mike Ielmini: Under legislation that establishes ANSTF, can we put Susan's position in another agency? David: We haven't looked at that, so I'm unsure.

Peg Brady: That is a clear underscore for the need for a good report to congress. We've been silent and we need to highlight the great work we've done and remind them of the need to continue our program. We're nearing our 20yr anniversary of NISA. The Report to Congress needs to be professional and demonstrate the great work we've done.

John Moore: Are we going to highlight the decreasing funds in budget, e.g., we're losing money for each state and have filled positions, can we put that in the document? Report to Congress is a good opportunity to highlight good work, but we also need to address the need for funding because organizations are being cut in funding and it is becoming very difficult for them. Quagga and zebras, big ticket species are the problems now and are getting the most money.

David: states are at \$24k, with another new plan we'll be at \$23k. We need to build a case for moving ahead collaboratively with stakeholders and focus on the prevention problem, as it is more efficient to do so. We also need to highlight understanding economic damage. It would be helpful to make that economic case in the Report to Congress.

John Moore: We're watching the heart monitor and it is going to flat line. It would be a mistake if we don't speak honestly and clearly about how funding issues could potentially end this program.

Peg thanked David for being transparent. This is challenging for all of us and agrees that the way forward is sharing information and tactfully addressing these issues.

4. Informational: QZAP Update (webinar by David Britton, USFWS Region 2)

The Quagga-Zebra Action Plan (QZAP) was completed in 2010. We received \$2M in additional funds to address issues of prevention and containment. About \$800K was given to Lake Tahoe for their interception program. Additional funds went to State Plans. The remainder was divided and used for competitive proposals related to quagga/zebra mussel projects.

In 2011, funds were not available. In 2012, we operated under a CR. Congress then directed FWS in 2012 to devote \$1M in redirected funds to QZAP activities. FWS was required to allocate \$1M to inspection and decontamination efforts, one of the highest priorities in QZAP. That particular action says that the estimated initial funding to completely conduct the activity would be \$25M and \$20M in each following year; we did what we could with the \$1M. The language on "mandatory operational decontamination and inspection" stations was unclear. Western partners agreed that prevention was important, and we focused on places where boats might be carrying invasives away from contaminated water bodies. There were some complications from both Title 16 and Title 18 of the Lacey Act. Quagga mussels are not listed, and States have not asked for enforcement assistance under the Lacey Act.

In February 2012, we divided the funding among different categories, including to Lake Powell. AZ, NV, UT, CA, WA, and OR natural resource agencies also received funds to ramp up law enforcement efforts. NM also received funds to interdict boats at interjurisdictional sites, and additional funds went to training.

We received a lot of comments about how 2012 funds were spent, so in 2013, when we had a little more time, we met with partners to work on allocation. Partners agreed containment needed to be a priority.

Current Congressional language is a little less specific, but provides \$2M. QZAP Action A1 notes that the State plans have the highest priority, so \$1M was allocated to those. We had another meeting in Phoenix last week to ensure everyone is on the same page. Partners

agreed that we should focus on containment again. We're finalizing a RFP and get it onto grants.gov later this week so we can spend funds this fiscal year; we have about \$930K to spend. We want to focus on prevention of movement of quagga mussels on boats, which can include enforcement, interdiction, boats, etc. We want to emphasize funding for boots-on-the-ground actions compared to meetings or research needs.

NPS has \$2M in base funds for quagga mussel prevention, containment, and enforcement. The funds have been split among 9 NPS units, primarily in the West. Some of the dollars are being used to help replace dollars that are being lost, such as at Lake Mead. The budgets for these activities had been higher in the past, and NPS had been tapping other sources to cover those invasive species activities. However, there are restrictions on how those funding sources can be used.

[PowerPoint reviewing how funds are used at Lake Mead.] – Funds were used to provide for equipment and personnel. Addressing invasives at the source is a critical priority, but a dirty job. We're seeing results. We're not at 100%, but we're moving in the right direction and the money is well-spent. It is a good partnership between government, the marinas, and others.

Question: Grants cover the cost of decontamination. Are boat owners charged?

Response: No. The decontamination facilities existed, but needed maintenance funds, which NPS provides. QZAP provides funds for staff. Boaters were charged in the past, but not now. Decontaminations can cost thousands of dollars and used to be up to the boaters, but boaters are no longer responsible to pay those costs.

Question: Cost-share between FWS funding and the responsible land management agency – has NPS provided this yet?

Response: We're not sure yet.

Question: The RFPs will be online in Grants.gov this week, what's the timeline for submitting proposals?

Response: It will be relatively short. Most people who would apply are already aware that we are working to get it out. It will probably be a matter of weeks.

5. Discussion: Inspection and Decontamination Model Legislation for States

Preventing the Spread of Aquatic Invasive Species by Rec Boats: Model law

David Hoskins:

The western states are concerned about AIS spreading from one water body to another. The States have taken the lead in addressing the issue. The Western Regional Panel (WRP), initiated development of a multi-state watercraft inspection and decontamination (WID) program called "Building Consensus in the West". As an outcome, this group, The National Sea Grant Law Center, and the Association of Fish and Wildlife Agencies just announced the release of, "Preventing the Spread of Aquatic Invasive Species by Recreational Boats: Model Legislative Provisions & Guidance to Promote Reciprocity among State Watercraft Inspection and Decontamination Programs". These Model State Legislative Provisions were developed for two purposes. First, the provisions offer guidance to states with existing watercraft inspection and decontamination programs to create a foundation for multi-state reciprocity. Second, for states without watercraft inspection and decontamination programs, to use as a legal framework for the authorization of new watercraft inspection and decontamination programs. Future Plans are

to compare existing state laws to the model legislation to identify commonalities, differences, and gaps and model regulatory language will be developed to supplement the new model legislative provisions.

Elizabeth Brown:

This project came from QZAP. Over the course of 2011, the Western States struggled with the large and complex goals of QZAP. In the Fall of 2012, we gathered in Phoenix with Attorney Generals, Law Enforcement Chiefs, and others. The Phoenix Action Plan came from that meeting – Goal 2.6 was to create model legislation for States working on boat inspection and decontamination. It's great to see that effort is now final. Thanks to Sea Grant Law Center and AFWA for their assistance with this effort, especially Stephanie and Priya. Many other groups and agencies also contributed to this effort.

We wound up with a national product with national input, which gave us a much better product. We reviewed State laws and looked at which pieces were the best ones to incorporate into the model.

This is intended to be a guidance document. We don't expect any State to adopt it in totality. Rather, States and localities can adopt the pieces that fit them best. Should a program be established for prevention and containment, other sections provide common language and rules that will assist with reciprocity and setting mutual standards and protocols. It's a multi-layered approach with a lot of choice built into it.

Each section has explanatory notes, providing legal guidance to Attorney Generals and the staff writing the law.

One of the most important elements of this exercise was getting our State Attorney Generals involved in the process. We are providing advice that will help the States apply laws and work collaboratively. It will help the States change and adapt to the growing needs of this issue.

We realized that there are more commonalities than differences in working on this. Definitions were a big part of the effort. Different States had different terms for "decontamination," for example. Getting to a standard language was very important. Consensus was also important on issues such as how to detect mussels, how to list them, etc. We're starting to look at that across the 19 Western States and broader so we can speak "apples to apples." Our approach was to focus on commonalities and work in a facilitated fashion. Everyone who worked on this did a great job and really came together.

There are two pieces to the core legislative package. The group felt some elements were necessary to adopt, and other things that are elective. For example, you may elect to quarantine a boat, but it's part of an optional package. Minimum authorities and additional authorities were both provided based on leadership guidance and directives.

This is truly about watercraft inspection and decontamination, not the full suite of invasive species issues. We acknowledge that we will never have resources to get to all bodies of water. Education is a vital part of the effort. We fleshed out responsibilities of boat owners. Each section provides explanations and applications. Every section also provides cross-references to other relevant parts of the law. Language covers issues such as how to inspect, what to do when invasive species are found, etc. We also have procedures on how to work with the public. We also clarify what a law enforcement officer can do versus a public information person can do.

Decontamination was an involved discussion, because we don't know what new science or technologies will reveal.

Decontamination and inspections are the biggest pieces. Certification was also an interesting challenge. What is the best way to provide proof to the boater so that they can certify that they had their boat inspected? It's an important place where reciprocity is important across jurisdictions. We've already seen results, where States are sharing information. It is improving customer service and saving the States money.

Penalties are tied to other statutory language that is already in existence.

Supplemental issues include funding, closure of waters, drying time, local government authority, forfeiture, immunity, and reporting. These were issues that could be included if the respective State or locality chose to include it. We know inspection and decontamination can yield results. We wanted to provide language that can be personalized.

Question: Next steps? How will you work with States to implement the provisions?

Response: We're not done yet. There are many other actions from the Phoenix meeting, including the finite details of implementation. We are hosting a session on consensus-building this fall and planning other activities. The States are working through the 100th Meridian to develop training. It's up to the States to determine whether to adopt language, which we're tracking.

Comment: This effort is important, especially on the reciprocity language, which is important to ensuring adjacent States have similar policies.

Response: We're starting to work more with eastern States. We would like to work more with other Sea Grant offices to coordinate these efforts across more States.

Question: Is this document online?

Response: Yes. AFWA approved it in March. The National Sea Grant Law Center published it last month. It's also on the Oregon Sea Grant webpage, along with other documents and reports that were prepared as part of this effort. OR Sea Grant has a consensus-building webpage.

Comment: The Northeast is an extreme challenge because we have thousands of lakes, and implementing inspection is going to be a huge challenge. This document is going to be really useful. There is growing interest from localities and organizations in this kind of information as they work to promote recreational boating. We need guidance on how to implement. We could also use recommendations on how to install boat wash stations at smaller facilities. We're also looking at possible invasive hubs using maps and GIS to work out where to target our efforts.

Question: Have you interacted with Canada and Mexico?

Response: The province of Alberta is starting their own inspection and decontamination program. We don't have representation from Mexico. [Peg Brady offered assistance in building additional connections with Canada.]

Question: Have we communicated some of this material to State legislative associations to help get the word out?

Response: We worked with the National Association of Attorney Generals. We're trying to do outreach to the various Governor associations, but we know that we're missing some groups and welcome opportunities to provide input. Priya Nanjappa from AFWA did provide some input for the eastern States, so this isn't just a western States effort.

Question: The effort was focused on freshwater systems. Are there implications here for marine systems?

Response: Peg - There is related guidance that has been prepared on hull fouling.

Action: Put model legislation materials on the ANSTF website.

Comment: Minnesota has done some thinking on this subject and Erika Jensen can put them in touch with this document. Great Lakes organizations can help bring this to the Midwest/Great Lakes area. Erika is glad to help bring these issues to them.

6. Informational: Addressing AIS Issues at Federally-managed Water Bodies

Lori Williams

In response to a November 2011 WRP recommendation, a letter was sent to NISC encouraging them to work within their membership to address the movements of boats infested with invasive mussels and other AIS to reduce the spread of AIS. One year later, in August 2012 the attorney's general workshop in Phoenix, Arizona, developed an Action Plan with two action items related to the WRP recommendation. These action items included defining the roles and responsibilities of organizations associated with the management of dreissenid mussels and broaden the scope of federal regulations to include preventing the movement of dreissenid mussels onto and off of federal land and waters. A joint ANSTF/NISC Committee was developed and several documents including a Policy Options document were developed

The Federal Lands Workgroup was established as an ad-hoc workgroup. The charge was to examine Federal laws, policies, and regulations onto and off Federal laws and water and seek opportunities to improve coordination. Thanks to Paul Angelone and Laura Norcutt for their efforts.

The document has generally received positive comments. DOI Solicitors have provided some comments that need some follow-up. As a result, we are unable to share the documents yet, but we need to get the attorneys, policy staff, and enforcement staff on the same page. We anticipate having something within the next few months, possibly sooner.

Work products include the following:

- Federal policies option paper and recommendations about how to improve Federal coordination on this issue
- Appendix 1 – summary of agency roles and responsibilities in invasive species management
- Appendix 2 – summary of laws and policies governing invasive species management,
- Checklist of actions for addressing movement of invasive species – more detailed list highlighting authorities related to conveyances on and off Federal lands.

The question for today is, how we can proceed from today and ensure we are taking the correct next steps? The paper will not mandate that agencies have to take any specific step, so we don't think individual agency approval is required. The paper could be released as a product of the Working Group and presented as recommendations only, but that doesn't seem to achieve the goals we were given. After the document has been approved, we recommend the ad-hoc committee should continue to capitalize on the coordination and partnerships it has already established.

FWS supported Paul Ange lone, who was the key leader of this group. We had every intent to complete the work by today, but Solicitor review has required us to dig deeper under the hood.

That examination will help us produce an even better product, so we look forward to getting this to you soon.

Questions:

Mike Ielmini: What is the Solicitor's review concerned with?

Lori Williams: Mostly technical things, but she's not sure. If we can get the first two parts cleared first, we may not have to put out all the supporting documents to the public (can stay internal to federal government). We want to get the first stage out the door quickly and will follow up with the rest later.

Peg Brady: Isn't there a similar model for land based issues (moving equipment from federal lands)?

Lori W.: There are some differences. There hasn't been an effort to look across all agencies. There have been some standards. There really isn't something similar for terrestrials at this scale. On the terrestrial side, there might be policies at the local level.

7. Informational: Legislative Update

Craig Martin, brief overview

There currently aren't many bills being pushed through Congress that have a high likelihood of passage.

Wash stations are an important part of active management of AIS, whether through outreach or mandatory inspections. However, finding funds for running these stations has been difficult. We are looking at alternative funds, such as the Federal Aid in Sport Fish Restoration Act, which provides significant funding. Recreational Boating Access funds must be 15% of SFR funds, and can include boat wash stations, service to remove AIS, and mandatory washdowns; however law enforcement actions are ineligible and cannot use the funds. WSFR noted that States sometimes have difficulty meeting the 15% standard, so this represents a major opportunity.

ACTION: This needs to be added to the next agenda, and have a speaker who can talk about this issue.

Comment: There are some nuances that would need to be addressed to SFR. For example, the 15% funding requirement is on a regional, not State, basis. SFR is up for reauthorization, and some proposals are on the table. For example, up to 25% of the Clean Vessel Act funds might be used for equipment, including that used for invasive species control.

ACTION: Post materials related to SFR on the ANSTF website.

Congressional Invasive Species Caucus – Lori Williams, Susan Mangin, and Bill Hyatt briefed the Caucus on November 19, 2014. The briefing was well received. AFWA provided a follow-up to the Caucus with several requests demonstrating how funds would be utilized. This may be a way we can get some traction on this issue.

ACTION: AFWA has expressed an interest in expanding Caucus membership and communicating proactively. Erika Jensen offered to assist.

In 2006, USDA Veterinary Services issued a Federal order restricting movement of several fish species out of the Great Lakes because of VHS concerns. The order is not intended to replace regulations. In 2009, a proposed rule was issued, but had no stakeholder support and did not

move forward. The States began to take some actions independently. In 2011, a risk assessment was conducted and found that States had sufficient procedures in place such that the Federal order could be rescinded as long as state procedures were maintained. This is expected to happen soon.

8. Discussion: Status of Recreational, Water Garden and Classroom Guidelines and Outreach Committee Update

Introduction by David Hoskins:

Over the past couple of years, several Committees were formed to update the Voluntary Guidelines to prevent the Spread of AIS Through Recreational Activities, Water Gardening and also Guidelines to prevent the spread of AIS through Classroom Activities. The Recreation and Water Garden Guidelines were approved by the ANSTF in November 2012 and the Classroom Guidelines were approved November 2013. We are in the process of posting an announcement that all three of the guideline documents are final in the Federal Register this week. For reference, the Recreational, Water Garden and Classroom Guidelines are at Tab #2. We are in the process of reinvigorating the ANSTF Outreach Committee to implement these Guidelines. We want to provide a consistent message and brand that agencies and partners can use.

Discussion by Laura Norcutt and Brian Bohnsack from FWS Communications Branch:

Laura: You've seen the guidelines and have them in the book, so I want to update you on doings since last meeting. We've tried to establish an outreach committee and have a good list of folks to join. Ann Hass will put a good communication plan to use once the outreach committee gets going. What we need is someone to lead the group since I can no longer do so because Susan left and I have more responsibilities. Elizabeth Brown has volunteered to help start the group and they are ready to get started. The plan is to get FWS folks involved. Brian Bohnsack and Richard Christianson (FWS branch chief of communications) are here and helping out.

Elizabeth Brown (Elizabeth Brown is a co-chair to the Outreach Committee): The first step is to get the committee together, next is to use the communication plan and evaluate how to move forward. We are also very passionate about SAH!, HabitatAttitude, etc., and want to look at products of the Task Force and see how we can use products that already exist to best move forward. We're very energized to move forward with this. We want to take a more inclusive look at how they collaborate with other national campaigns. The Committee can contact Doug, Laura, and/or Elizabeth if they are interested in joining the committee (all are welcome to join).

Peg B.: NOAA communications department can help package and make available communications materials.

Sarah Whitney: How does collaboration with SAH! etc., work?

Elizabeth B.: We don't sit over them, we want to make sure we don't overlap with them or become redundant. We still need to explore this.

Kim Bogenschutz: We should be able to evaluate what works and what doesn't (evaluate communication/outreach materials' efficacy).

Sarah W.: Adding on to that, we should see if there is any behavior change coming from communications/outreach materials (i.e., we need to evaluate their effectiveness).

Craig M.: Steering committee to oversee implementation of SAH (based on MOU) has been non-existent. We hope the Outreach Committee can play a huge roll in informing content and where it heads.

David H.: FWS consolidated FAC into six branches. Team leads in the Communications Branch have been organized around key communications issues, such as working with partners and stakeholders.

9. Informational: Research on Ballast Tank Filters

Peg Brady introduction: The end goal of this work is increased resource protection, more efficient watercraft inspection and decontamination operations, and improved customer service.

Elizabeth Brown update:

Lengthy presentation at November ANSTF meeting re: mitigating risk of ballast tanks. Ballast tanks are a problem because they can't be fully emptied when draining. Decontaminating ballast boats is expensive and time consuming and doesn't provide a good service to users. Over the course of many years, WRP has been trying to find solutions along with PSMFC, industry, California Fish and Game, and others to look at ballast water issue.

Dennis Zabaglo: We decontaminate about 1000 ballast boats a year. They are difficult to deal with because ballasts are difficult to access. University of Nevada, Reno did research on these filters and have about 99% effectiveness with technology currently available (synopsis of research was passed out to the group). Private/public partnerships are key to making big changes, and this technology is a good example of how that works.

Mary Kate Wood and Scott Wood (owners of wakeboard llc): We're a small manufacturer of wakeboard ballast devices and together have a lifetime of boat building and design. We hope to stop transport of AIS in ballast water with this filter. Testing in Lake Mead showed they are 99% effective at avoiding AIS transfer into ballast tanks. Requirements were: 1) be effective, 2) easily verifiable (is identifiable by tamper evident tags). Filters need to be changed every 6 months in Lake Tahoe areas (more so in turbid waters). We're working with manufactures to get filters installed into new ballast boat models and are also making retrofit kits are available to the public. We want to be able to get folks on the ground to agree to skip ballast decontamination for boats that have this device in order to make this technology more appealing to boaters.

Questions:

Mike I.: What is the micron level of filter?

Kate: 20microns

Elizabeth B.: This is one step in preventing AIS through a public/private partnership. This filter can stop quagga and zebra mussels, Asian clams, spiny waterfleas, and others.

Whitman M.: What are ballast boats?

Kate: they are wakeboard boats. The ballast comes in tanks or in auxiliary PVC bags that weighs the boats down and makes a bigger wake. Auxiliary filters exist for bag boats too.

Whitman M.: 0.5% of 100 is small, 0.5% of 100,000,000 is a lot. I advise that you or others check the concentrations that testing was performed at.

Mike: I will let the researcher know.

10. Informational: Emergency Treatment of Marine Vessel Ballast Water

Introduction by Peg Brady:

Emergency treatment of marine vessel ballast water was pioneered by the National Park Service as a result of the Igloo Moon casualty in 1994 and an interim treatment on the Ranger III in 2007. In 2008, the NPS initiated the development of rapid deployment methods for emergency or interim ballast treatment. This ballast water emergency treatment method has proven successful and can be completed within 24-48 hours. Phyllis is encouraging adoption of this rapid response tool for ballast borne invasion interdiction for risk assessments support deployment is encouraged along with developing a framework for reviewing and approving other contingency measures as they become available.

Phyllis Green from Isle Royal National Park:

Our team spans coast to coast, including USGS scientists and industry partners. 7 years ago the NPS ballast water program was started. The biggest ballast tanks around on the Great Lakes are large shipping vessels. 3 goals exist at the NPS: 1) make sure we aren't transporting VHS in ballast, 2) advance emergency treatment and rapid response, and 3) help find solutions for ballast water treatment. I attend industry forums and challenge them to advance treatment technology implementation. [Phyllis showed a model of golden mussel spread thru Great Lakes on her PowerPoint]. NPS has treated 2 vessels for emergency ballast water treatment in the last 10 years; first on a commercial vessel, second on a NPS vessel. [Phyllis showed a risk assessment flow chart on her PowerPoint] Ranger III demonstrated good effectiveness, and we want to scale up. Difficulty exists for treatment of large tanks, but can be done in a timely fashion, enough that industry is OK with it. It is important to be able to respond to things such as groundings in a timely manner and be as prepared as possible, which is why I am presenting here for folks like NOAA who have lots of coastal resources. Scaling up is possible to treat large ships, and chlorine use is OK because chlorine discharge per watershed is negligible compared to other chlorine uses, such as swimming pools. We know permanent treatment will fail sometimes, so emergency treatment is useful for situations like I've discussed and that is why industry is excited about having this emergency equipment. By the end of the summer we hope to have funding to test efficacy in another ship. We are in discussion with two west coast states to demonstrate this as best management practice.

Questions: none

11. Discussion: Wake boats as a novel source of AIS transfer: Potential for spread, possible solutions

Introduction by Peg Brady:

Residual ballast in recreational wake boats have been identified as possible AIS vectors. Wakeboard boats contain ballast systems that wakeboarders and wakesurfers use to catch big air and enhance the activities of water sport enthusiasts. While most boaters will drain this ballast before leaving the lake, even when the bilge pumps indicate that the ballast system is empty there is still water remaining in the system. This residual ballast poses an increased risk of transporting and potentially introducing live organisms. Wisconsin Sea Grant sampled wakeboard boats to get baseline information on the amount of residual water and the contents of that residual water. Future work will explore best management practices for draining these ballast systems. After the presentation, we'd like to discuss what if anything other Regions are

doing and possibly establish a committee to develop decontamination guidelines to add to the Recreation Guidelines.

Tim Campbell, University of Wisconsin Sea Grant AIS specialist:

I'm going to discuss some work done in partnership between WI Sea Grant and a local retailer. Ballast bags, or fat sacks, are the ballast compartments in ballast boats, but they also have hard tanks that fill up storage compartments. Fat sacks are the preferable choices for many. With fat sacks comes the possibility to transport large volumes of water. Wisconsin perspective: water needs to be drained and can't be transported. Filters can't remove pathogens such as VHS, so they may not work in WI. We are trying to establish a baseline on how much residual ballast may be left over and want to know what organisms are being transported in the residual ballast. We've been working with a local retailer to sample residual ballast. We sampled 25 boats total. Residual ballast was filtered through a plankton net and preserved in 70% ETOH. Mean residual ballast per boat was ~31L, but there is high variance. We found live zooplankton, some survived 7 days to a month. We'd like to look at options on how to better drain ballast, and to survey boaters for behavior to determine how many different bodies of water these users visit. We'd like to create awareness of AIS issues, including potential ballast water issues. Lots of boats with residual water had SAH! stickers on them.

A handout summary was made available.

Questions:

John Moore: There seem to be lots of cladocerans in the residual water. What is the risk of zebra mussel veligers?

Tim C.: We don't know, may depend on where you are, but we're going to do more research on this. Spiny waterfleas may also be an issue.

Elizabeth B.: Two studies published in 2012-13 documenting zebra and quagga mussels: quagga can survive 24 days in closed water tank, zebra mussels can survive 27 days. We've asked manufacturers if they are able to change the way they build ballast tanks/fat sacks so they can drain them all the way, but manufacturers don't think it is possible.

Mary Kate: Her biggest dealers are in Minnesota and Wisconsin and they may need to be brought into the loop.

Danielle Chesky: What about VHS?

Tim C.: I didn't mention VHS issues because they haven't tested for it, but if they can get rid of all water then they won't have that problem.

12. Discussion: Boat Construction in Consideration of AIS

Introduction by David Hoskins:

As we all know, watercraft can provide an unintended consequence of spreading AIS. For instance, internal systems that carry water may be difficult or impossible to fully drain and external components may allow for AIS to attach to areas that make it a challenge to locate and decontaminate. Additionally, concerns have been voiced about the possible impact of using hot water to decontaminate boats, which may compromise the boats' internal and external components. Brian Goodwin and David Dickerson, on the phone, are joining us today to discuss a proposal to develop approaches that could be considered to help prevent the spread of AIS through the development of new boat designs, retrofits, or new builds. After the

presentation, we are looking for ANSTF members interested in working on this issue. For reference, the Proposal is at Tab #3.

Brian Goodwin, President of American Boat and Yacht Council (ABYC) and John Adey (ABYC):

ABYC is a 60 year old organization that writes voluntary standards for the construction of boats. ABYC supplements regulations with over 70 voluntary standards, affecting about 92% of boats that have been registered on the water over the last few years. ABYC is a 501(c)(3) non-profit with a staff of about 13 people. Invasive species are a new issue for us.

We want new boaters, and having people wait 2 hours to decontaminate their boats may discourage that.

In developing standards, specific use of patented products only is prohibited to meet that standard, though boaters can use a patented product as one option to address the standard if they want.

Note: ABYC provided an example where carbon monoxide was successfully addressed. ABYC proposes a summit in Denver between invasive species experts, academia, and industry to address this issue. What options can be explored? For example, how can engines be flushed more effectively to reduce the amount of contaminated water transported between water bodies? Some solutions could be developed and implemented quickly, and others might need more time. The boat builders want to see voluntary recommendations that they are contributing to rather than regulations.

Questions:

Peg B.: When you talk about design are you discussing coatings as well?

John: Nothing is off the table, so maybe. Boat builder's goals are to make the ABYC formula work to avoid federal regulations.

David H.: Region 6 has earmarked 10k for this summit and looks for partners to help donate. Can others get involved in participation and funding?

Mike I.: FS has some researchers that may be able to partner up.

[There was some interest in attending and possibly funding it by the audience.]

John: Maybe we'll get a webinar together to talk more about this.

Dave H.: Good idea, but what are some immediate reactions?

Elizabeth B.: Excited about this and is glad to have this opportunity. I hope that there is excitement from others about this.

Kim B.: I think we should come together to do this, this is important.

Dave H.: Webinar should be the next step so folks can digest this information.

Peg B.: I suggest holding the summit in tandem with another conference so we can get folks there without dedicating too much funding/time.

13. Informational: Stop Aquatic Hitchhikers! Update

Introduction by David Hoskins:

Wildlife Forever will provide an update on the development of the SAH Advisory Committee. This committee will assist with marketing and implementing national campaign standards to

outdoor recreational user groups. Wildlife Forever will also update the committee on partnership developments with Cabela's and outreach coordination with NGO, state and federal partners. New outreach products include a Stop Aquatic Hitchhikers! boat wash training video produced by the GL Sea Grant network for fishing tournament operators in addition to new campaign tools and branded products.

Pat Conzemius, conservation director at Wildlife Forever

We're going to be working to promote the brand more extensively in the Great Lakes, and have redesigned the graphic to make it more appropriate for different locations.

We're developing an advisory committee with volunteers from different sectors of the recreational user community, science professionals, marketing, and business to bring together different areas of expertise. We partnered with the MN State of Waters to expand the campaign extensively in Minnesota. We are also working with the Governors Fishing Opener in Minnesota to promote the campaign.

We are working with the Great Lakes Sea Grant network to introduce SAH! to new audiences. These include different products such as a DVD "How To" for tournament organizers. We want to bring our products to local organizations.

Cabela's is also a partner and is promoting the campaign through all of their stores through posters, PSA's, etc.

Several products have been produced, such as banners and posters. Billboards have also been purchased. New products are being improved and expanded, such as the monthly e-newsletter.

The social media presence on forums such as Facebook and Twitter is also expanding.

SAH! is a community asset, it's a partnership.

Current events:

Recently at a conference in Minnesota called State of Our Waters. Shared tools and messages and discussed how SAH works with anglers. Doug Jensen of MN Sea Grant attended.

One event coming up is Governors' Fishing Opener at Gull Lake, MN. We're donating thousands of dollars of SAH outreach material to this event.

We're partnering with Great Lakes Sea Grant network on wash station how-to information, professional fishing tournaments, clubs, lake associations, and local governments and municipalities.

Greg Conover in Missouri is working to implement SAH @ Cabela's retail stores (signs, in-store PSAs, flyers to go with new boats, advertisements in catalogs). They are continuing to produce products and services available to states/feds and others. SAH is distributing a monthly newsletter. Updated the group on the social media outlets they host.

Questions: none

14. Decisional: ANSTF Involvement with National Invasive Species Awareness Week

Introduction by Peg Brady:

NISC has provided outstanding leadership over the last few years for NISAW. However, due to past and current budget challenges, broader leadership is needed. Lori has been working with

partners on planning for the next NISAW, and she will update us on those efforts. This is less a decisional item, more of a reaffirmation of our involvement.

Lori Williams: NISAW was a great organization for many years. Four years ago it went to a private organization, which became problematic. Three years ago it went back to NISC until the sequester hit and then it fell apart. I would like to get started on planning NISAW right away. My idea is to have non-federal folks take the lead but ANSTF and NISC take the lead. With non-federal lead we can get many co-sponsors and it could focus on engaging congress, as it is difficult for federal agencies to do that. Lori suggests that NECIS, AFWA, WSSA, and one private industry partner sponsor one day each and one or more of the governors' association, with ANSTF and NISC providing guidance. During NISAW, non-federal employees can approach the invasive species caucus and/or senators. We probably need to start planning for late February / early March 2015 with this different structure, probably meeting by early June.

Al Confrancesco: Is this a conference, a meeting, etc.? We need the right terms so we can get the right participation/involvement from Federal agencies.

Comment: Other organizations would also be appropriate partners. A lot of State partners would have greater flexibility in helping to organize.

Response: We agree. Some organizations need to have the lead in planning if this is going to work.

Peg – I thought that there would be unanimous support for this effort. We're looking forward to future efforts on this.

ACTION: Additional discussion is needed on specifics related to National Invasive Species Awareness Week before deciding whether ANSTF will support.

Decision - The ANSTF agrees to participate during NISAW.

Yes _____ Y _____ No _____ Additional Action ___NO_____

15. Informational: Great Lakes and Mississippi River Basin Interbasin Study

Introduction by David Hoskins:

Dave Wethington, is the Project Manager for the Great Lakes and Mississippi River Interbasin Study (GLMRIS), and will provide a synopsis of the GLMRIS Report which was submitted to Congress on January 6, 2014. Mr. Wethington will present pertinent facts regarding the Chicago Area Waterway System (CAWS), the general risk-based plan formulation process for GLMRIS, as well as a brief discussion of each of the eight alternatives outlined in the document. Mr. Wethington will also provide an update on the public and stakeholder engagement efforts, including a general summary of comments received and a discussion of possible next steps.

Dave Wethington: GLMRIS was originally authorized in 2007, USACE started working on the report in 2009. GLMRIS looks at inter-basin transfer of ANS via aquatic pathways connecting the Mississippi River to The Great Lakes. In addition to the Chicago Area Waterway System (CAWS), 18 smaller risk, mostly episodic smaller inter-basin transfer points exist, but are a lower risk than the CAWS. The smaller transfer points have easy solutions. CAWS is a complex, multi-use system. Physical barriers cause disruptions and adverse impacts to other uses of CAWS, such as transportation, flood management, and wastewater discharge. USACE did not rank any of the 8 alternatives presented in GLMRIS. Common themes at public meetings:

protect the GL, immediate action is needed, physical separation will be the most effective solution, importance of waterway commerce to the regional economy. Comment summary:

- 98% support need to control ANS
- 40% favored physical separation
- 35% prefers maintaining current uses of CAWS
- 24% urged the stop of Asian carp but didn't specify alternative
- Very few technical comments were sent via public comment on GLMRIS.

Possible future activities include a collaborative path forward in indentifying a consensus-based solution to existing ANS control issues. MAP-21 allows Secretary to proceed to preconstruction engineering and design if a project is deemed "justified." The Corps is awaiting further direction before moving ahead. Dave outlined possible future activities, including a new lock concept, fish deterrents, non-structural controls.

Questions:

David: You're waiting for congressional direction?

Dave: yes, the interim wait is to find a consensus but there is no established consensus so they're waiting for elected officials to make an established consensus way forward.

John Moore: Maps are great. This is driven by carp, but why isn't Mississippi basin concerned about things washing down from GL?

Dave W.: constituents are most interested in Asian carp and the other messages are not as obvious.

Mark: What happened to the campaign zip codes in the maps?

Dave W.: We counted the two campaigns as single comments.

Al Confrancesco: Comment to Whitman- the reason for the electric barrier was to prevent the round goby from getting into the Mississippi, so there is interest in downstream states in preventing GL invasives from making their way into the Mississippi.

Greg Conover: I am concerned that the map may be misleading because the folks in the navigation industry may be speaking more loudly. Also, one-way control at Brandon Road is concerning.

Dave W.: Brandon Road one-way control is an interim response to the Asian carp issue, not a long term solution.

Greg: The Mississippi states are interested in more than just Asian carp control.

Comment: There is a machine in the Great Lakes that is conducting significant outreach. The map [showing preference for physical separation v. minimization] appears to be skewed, as some organizations are only represented by one tiny dot when they represent more people.

Question: Were there questions directing comments?

Dave W.: We had a Federal Register notice outlining what we needed, but comments were requested "free-flow."

Comment: We had an action item once in to examine waterways across all of America, but there wasn't follow-up.

16. Informational: Next steps in preventing Asian carp and AIS moving through the Chicago Area Waterway System

Introduction by Peg Brady:

The Great Lakes Commission (GLC), in partnership with the Great Lakes and St. Lawrence Cities Initiative, has been working since 2010 to investigate interim and long-term solutions to the threat of an invasion from Asian carp or other species through the Chicago Area Waterway System (CAWS). At the same time, we need to maintain and enhance uses of the system for transportation, flood risk management and water quality. This work has included active engagement from a stakeholder Advisory Committee and a team of expert consultants. With the recent release of GLMRIS, they anticipate that the next phase of the project will focus on providing a forum to reach consensus and provide guidance on next steps to the Corps, other federal agencies, Congress and the Great Lakes states.

Erika Jensen, Great Lakes Commission, continuing the Asian carp discussion:

Erika: Looking at AIS and Asian carp was a deliberate title. I'm presenting on the 2010 *Restoring the Natural Divide* study and report available at projects.glc.org/caws. The report outlines recommendations on the next steps to address the pathways. Though we were focused on how to address physical separation, we didn't ask anyone to endorse separation as a solution, just asked them how it would happen. The report accounted for existing uses and tried to include and/or improve them while physically separating the basins. Report included three alternatives 1) near lake, 2) mid-system, and 3) down river. Mid-system is the most viable alternative because existing wastewater plants can continue to discharge downstream. Only one would need to be upgraded. Cost estimates which range from 4.27-9.54 billion dollars, most of the cost is in flood protection, water quality, and transportation. Barriers themselves are very little of overall cost. The report estimates a 25yr timeline based on other investments. Project benefits include 150-500 million dollars of annual AIS costs avoided (see PowerPoint for exact details).

What's next? What is most viable alternative? GLC has been working to answer these questions and have decided to maintain stakeholder advisory committee and shift its focus to look at short, mid, and long-term activities. Continuing policy resolution says that they want to continue all efforts currently underway, use Brandon Road as a proving ground for new technologies. Advisory committee has agreed to prevent Asian carp and other aquatic invasives from moving between the Mississippi River and Great Lakes basins through CAWS by continuing current actions, initiating addition actions, evaluating and implementing lock treatment options, implementing Brandon Rd lock and dam, evaluating long-term solutions, and developing cost sharing partnerships. We are now looking more closely at taking action at Brandon Road.

Follow-up Discussion with Bill Bolen on May 8, 2014

Even with the tough winter, carp habitat matches in the U.S. are still strong. We are seeing spread of black carp up the Mississippi River. We are also concerned about bighead carp.

We've managed thus far to stop carp from migrating into the Great Lakes, but they are still in the Mississippi River, though some of their movement has been halted.

Environmental DNA is a useful tool, but we don't know whether finding it means we're finding the fish or bird poop. We are continuing to calibrate it as a tool.

We know carp have been introduced into Chicago area ponds.

We think we need to intensify removal and harvesting activities farther south and away from the Great Lakes. We want to expand monitoring efforts.

In a study last year, we learned that barges can entrain fish with them, so there is a surge effect where fish can be transported. We have seen evidence that fish can school and get through the electric barrier. However, we have not found any Asian carp proximate to the electric barrier in four years.

With a combination of techniques, you can drop Asian carp populations. Right now, we're focusing efforts at Brandon Road Lock and Dam.

Black carp is also a growing species of concern.

Question: What's unique about black carp?

Response: It's more serious than bighead and silver carp. We caught a 76-pound individual recently. They eat mollusks, they grow large, and they're long-lived. Bighead and silver live fast and die young. Black carps have the potential to do more damage. Black are benthic species, so the gear we're using won't give us the same level of vigilance in catching the smaller specimens. Almost all of the ones we're catching are diploid.

Question: You showed a map where carp had been found. Are grass carp diploids and triploids?

Response: They're all carp that have been captured – diploid and triploid.

Comment: On the map, egg collections are actually higher. They're reproducing farther upstream.

Greg Conover: MICRA States would find it interesting to see where work has been targeted. We know we need to work farther south if we want to address the threat in the Great Lakes. There are interesting results, and we need to find ways to share information in the Lower Mississippi River Basin. Also, what's the goal behind the Framework? From a MICRA perspective, the Great Lakes community is not taking actions to prevent grass and black carp, yet we're seeing evidence that they're moving up the Illinois River. There are a whole suite of activities that we need to address together. We need to do a better job linking ACRCC Framework with the National Plan. We have four species and different efforts. There needs to be a national approach to addressing this issue.

Response: We don't have an answer yet – we're trying to do the best we can.

17. Informational: eDNA Information Clearinghouse Website

Introduction by David Hoskins:

Kelly Baerwaldt and Bill Bolen have developed a proposal to consider for an eDNA toolkit, or clearinghouse website, to be hosted on the main ANSTF website. eDNA as an aquatic surveillance method for invasive species is becoming increasingly popular, and previous discussion indicated perhaps the ANSTF would be the appropriate place to find a lot of the existing information regarding eDNA in one place. For reference, the draft web page is at Tab #3 in the briefing book.

Kelly Baerwaldt:

We have been pulling together materials for an eDNA toolkit. It's not specific to bighead and silver carp, but rather a more comprehensive resource. We all get requests for information and it would be nice to have one resource to refer people to.

If Kelly can update the database on a quarterly basis, with assistance from FAC-Communications, FWS agreed to make this a priority if ANSTF weighs in.

This is a rapidly evolving technology and tool, so having one resource would be beneficial. Is the ANSTF okay with FWS doing this?

Question: Who would screen the information for the database?

Response: Kelly would be responsible as the content manager for ensuring data meets QA/QC standards. The criteria for determining that need to be developed. We would need to ensure information we post conforms to protocols and standards.

Question: What's the audience? I'm hearing that this would be more of a clearinghouse, rather than providing data. The ANSTF website should lead visitors to other sites. It's not intended as a database.

Response: Maybe we need to reconsider this and develop some specifics for consideration.

Question: A lot of people want to use eDNA. There is a great need to have baseline information on its limits and capabilities, with references to experts. How can it be used by different user groups?

Response: That's in line with what we envisioned for this clearinghouse.

Question: If we're putting this information on the ANSTF website, it might be perceived as an endorsement. We need to be very clear about presenting both sides of the information.

Comment: Maybe we can work with FAC-Communications staff and Kelly to develop a more detailed proposal on what the site should include and what it would and wouldn't do.

Comment: In the interim, if one of you have a specific need, contact Kelly for information.

Decision:

Kelly and FAC-Communications should develop a more detailed proposal on what the site should include and what it would and wouldn't do., and discuss this at the Fall meeting. In the interim, if anyone has a specific need, contact Kelly for information.

Decision - The ANSTF agrees to develop an eDNA information clearinghouse on the ANSTF website:

Yes _____ No Additional Action: ___Discuss at next meeting___

Public Comments

none

Day one of the meeting was adjourned at 5pm.

Day 2

Meeting started at 8:35am.

18. Informational: Member Updates

Mike Ielmini (U.S. Forest Service) – In two weeks we're meeting with the Forest Supervisor for Flathead Basin (NW Montana) to discuss the AIS Management Plan. We're also working on more decontamination of equipment to get into various tanks because we can't drain it – we're working with EPA to facilitate the process. The decontamination will help with invasives, white nose syndrome, sudden oak death, etc. Next week is ISAC and we're having the release of the national policy for invasive species in the Forest Service handbook; we're going to discuss with Tribes and then release it for public comment, probably in about a year – the first step is getting through ISAC, which happens next week.

Ron Johnson (National Association of State Aquaculture Coordinators) – During the winter I met with Doug Grann and Pat Conzemius to discuss SAH! and worked out a process where we're looking at partnerships with the aquaculture industry. NAASAC President has taken this on as a program we want to explore. 96% of WI fishermen use live bait, so having access to the bait industry is an important partnership.

The term "Asian carp" has become endangered in MN, with a bill introduced raised to change the name to "invasive carp" because of some concerns that the name is derogatory. There is an issue of multi-cultural awareness here.

ACTION: Work with NISC to consider changing the name of "Asian" carp to an alternative name.

Question: Does it take an Act of Congress to change the name of a species?

Response: No. It's a common designation, so we can call it whatever we want.

Comment: Marketing this as "Asian" carp presents some problems. Renaming it would make it more palatable.

Comment: Collectively, "Asian carp" is on everything we do. Showing that we're respectful might get more cooperation from those cultures.

Al Cofrancesco (Army Corps of Engineers) - USACE spends about \$100M / year on control and management of invasives. You heard from us yesterday on what we're doing in CAWS. We are also working on zebra and quagga mussels. We met recently with BOR to discuss those species. We're working in the Everglades to guard against invasive plants and fish, and ensure that they are not being pumped back into the system. We are starting to find new plant infestations in the Erie Canal. We've worked with USDA on identifying biocontrols from China and Korea for hydrilla, which we think is going to be a growing problem. If it takes off, we may face restrictions on dredging so we want to deal with it early.

Kim Bogenschutz (Assoc. of Fish and Wildlife Agencies) - You heard yesterday about efforts to develop the House Invasive Species Caucus and the model legislative provisions. AFWA is helping to develop best management practices and submitted them to EPA for possible application to *Arundo* (sp.?) as a biofuel. AFWA is putting together a legislative/regulatory review for each State; we plan to have this completed by the Fall; it will be a living document that can help show where good things are happening and where gaps may exist.

We have participated in a few hearings on the Lacey Act.

We're still working with PIJAC and FWS on the MOU and looking for ways to implement it.

Alan Ellsworth (National Park Service) – There's a lot more going on in the NPS than I'm familiar with. We've spoken with folks in regard to quagga/zebra mussels. There's been recent interest from the Hill, including a recent QFR about what it take to totally contain quagga mussels at Lake Mead; the task is very difficult so we're discussing the process. Our staff in the Upper Mississippi are concerned about Asian carp moving into their areas and have developed a plan to help manage or slow the movement of fish into the parks in that area. We're seeing cutthroat populations grow in Yellowstone as lake trout populations have been declining. In concert with NISC, we're looking at regulations we have in place and what needs to change.

James Ballard (Gulf States Marine Fisheries Commission) – Our Commission will be running the lionfish monitoring work we did last year with partners to assess populations. NPS lost their position this year, so we're working with the State of Alabama to run that project. In Alabama, their law enforcement staff need diving experience to stay certified, so they donated their boats and equipment to participate in control activities. Mississippi DNR had an unforeseen staffing problem last year, but they'll be working on the western edge this year. AL will also work on a pilot study to explore whether the public can help with some of this work, such as having the public report on a website what they are observing around reefs.

Our Commission houses the Panel's website. Our IT staff cleaned up the website, but noticed issues related to the ANSTF accessing the expert's database. [Craig said that FWS-FAC has restructured its program, and part of that effort includes managing the ANSTF website. You should see results soon.]

ACTION: Send comments on the ANSTF website to Craig Martin. Laura N. will provide an update to Task Force members when updates to the website have been made.

Question: RESTORE Act dollars related to Deepwater Horizon – possible to capture some of those dollars for lionfish?

Response: Our Commission is in the RESTORE Act, but we don't know when the money will come in. Once it comes through, it goes to the Commission, and it's unclear whether any of those funds will go to lionfish.

Bill Bolen (Environmental Protection Agency) – EPA has recently updated the General Vessel Permit, and continues to look for further control technologies. GLRI was first envisioned as a 5 year program, and it's in front of OMB as of yesterday for another 5 years. I will be conducting a Binational Response effort with our Canadian colleagues. EPA, FWS, USGS are going to begin encapsulating antimycin with a coat that will only be dissolved in the gut of Asian

carp – the registration process is expected to take some time. We are also exploring carbon dioxide as a tool.

Erika Jensen (Great Lakes Commission) – In addition to the CAWS and Asian carp we're doing, the Commission has a GLRI grant to develop software to look at Internet sales of invasive species. We flipped the switch about a week ago and are collecting data on Great Lakes species and markets.

We passed a resolution at our last meeting supporting Federal efforts that strengthen regulatory efforts to prevent species introduction. This and another resolution we approved are on our website.

We'll be commissioning several white papers coming up, and we continue to work with the USGS Great Lakes Science Center to research *Phragmites*.

ACTION: Include briefing on Great Lakes Internet sales and OIT tools at next ANSTF Meeting?

Comment: Strong interest in hearing more about the OIT and webcrawler tools.

Cindy Kolar (U.S. Geologic Survey) - USGS scientists are concerned about a species of salamander chytrid that has been observed in Europe. The species has been identified recently and is wiping out fire salamanders. We want to know what we can do to get the word out so it's not brought in through importation. What can we do to determine if the species is here and how can we prevent its importation?

Susan: FWS is looking at this as part of our review of the Defenders of Wildlife petition.

Meg Modley (Lake Champlain Basin Program) - We have a number of boat inspection and decontamination stations starting up. We also came to agreement with NY on a related issue. ANSTF had sent a letter of support of addressing that canal pathway. NY DEC has implemented a new regulation this summer stating that boats cannot be launched unless they are cleaned, drained, and dried.

John Moore Bureau of Land Management) – We have new leadership in BLM.

Bobby Wilson (Mississippi Interstate Cooperative Resources Association) – We met with Congressional staff to relay messages about AIS, including full implementation of State/Interstate AIS Management Plans, implementation of Asian carp control plan, and that we appreciate seeing FWS spending some funds outside of the Great Lakes in the lower Mississippi. We reviewed the GLMRIS report and others. We've been asked to join the CAWS Advisory Committee. Asian carp commercial harvest is still a big issue for us.

David Hoskins (U.S. Fish and Wildlife Service) – With respect to Lacey Act, we're working on individual listings, such as 5/9 of large constrictor snakes. We're also trying to finalize the categorical exclusion. Looking at non-regulatory, we have an MOU with industry and AFWA to voluntarily restrict importation of species not actively in trade. We are looking forward to having a DOI Management intern join us this summer to work on risk assessment issues.

Mark Minton – SERC and Ballast Water Clearinghouse – We're continuing to survey ballast water issues in various bays around the U.S. and Panama.

Peg Brady (National Oceanic and Atmospheric Administration) – I've posted various slides on the ANSTF website about more detail of what we're doing. We have two presentations there that speak to habitat work NOAA is doing. NOAA has reported annually on GLRI funds. In 2010, we had \$9.2M, this year we expect about \$4M. We have been successful in putting conditions in those funds to ensure HACCP controls, ensuring that restoration efforts do not introduce AIS.

Three of our Sanctuaries are at risk from lionfish and have developed their own action plan, augmenting other work.

A Federal Register notice has been published prohibiting introduction of introduced species in State waters where Sanctuaries are located. Comments are being reviewed.

We hosted a ballast water collaborative meeting recently with Canada and over 50 stakeholders.

Thanks to Susan Pasko for advancing our HACCP training around the country. We continue to offer those trainings, so please let Susan or me know if you're interested.

ACTION: Please provide written Member Updates to Laura Norcutt.

20. Decisional: Approval of Revisions to the Lake Tahoe AIS Management Plan

Introduction by David Hoskins:

For your reference, The Lake Tahoe ANS Management Plan Executive Summary is at Tab #4. After the ANSTF reviewed and commented on the Lake Tahoe ANS Management Plan, the final draft was disseminated to the ANSTF. Dennis M. Zabaglo will provide plan highlights and then we will vote for plan approval. An approved Lake Tahoe Plan will bring our total of approved state/interstate ANS management plans to 43.

Dennis Zabaglo presented information on the Lake Tahoe plan in preparation for the decision on the revisions to the Lake Tahoe AIS Management Plan:

Dennis: Current secci depth of Lake Tahoe is 70ft and our goal is 100ft. Development and recreation are hurting the clarity of the lake. Twenty-one launch facilities are operational around the lake. The original Lake Tahoe AIS Management Plan was approved in 2009 and we are looking for approval of revisions. Lake Tahoe already has invasive plants, fishes, and Asian clams and bullfrogs. Lake Tahoe gets boats coming from every state in the conterminous U.S. and we are very concerned about potential invasive species that are in nearby lakes. Plan revisions make a more robust plan to better guide the AIS program. It includes major technical revisions and updated appendices to be living documents.

Questions:

Don: Has reviewed a lot of state plan, but a few have risen to the top. Tahoe is one of the best plans and it was already a good plan before the revisions. This model to move important parts to the appendices is a fantastic way forward. Don recommends conditional approval until comments are incorporated.

Dennis: About 75% of comments have been incorporated so far.

Motion to approve plan? Made by Meg Modely. Second by Kim Bogenschutz. Approved by all.

Decision - The ANSTF approves the revised Lake Tahoe AIS Management Plan.

Yes x No Additional Action

21. Informational: Implementation of Invasive Species efforts for National Arctic Strategy

Introduction by Peg Brady:

The Implementation Plan (IP) for the National Strategy for the Arctic Region was released in January of 2014. The Department of the Interior, in partnership with the National Invasive Species Council (NISC) and the Aquatic Nuisance Task Force (ANSTF), has been designated as the lead Department to address the actions under the "Identify and Assess Invasive Species Risks and Impacts" section of the Plan. DOI, NISC and ANSTF have recently convened a group of federal and non-federal Arctic invasive species experts to flesh-out next steps and complete the identified actions. Phil Andreozzi is leading the group and will give an update on the work.

Phil Andreozzi: The IP for the National Strategy for the Arctic was published in January 2014. Department of the Interior has lead on invasive species work within the IP. Part of the IP identified 5 specific objects in context of invasive species. DOI is the primary reporter of activities, but group is very much collaborative with NISC, ANSTF, and non-federal partners. No funding is available for these actions. First work will occur at the domestic level, then we will slowly bring in international partners (all members of the Arctic Council).

ACTION ITEM: Let Phil know if there is any interest or information that will be of use to the folks on the arctic team. Can update at next meeting.

Questions

John Morris (coast guard): Have you identified your counterparts at international level to let them know that the effort is starting on the US level.

Peg B.: Last week at CASIN meeting I chatted with DFO counterparts and shared with them the IP. I have chatted directly with folks monitoring and doing baseline surveys. I have had discussions with folks who interact with Arctic Council. The Smithsonian has been doing extensive work in Arctic so far and will have papers published soon on the topic.

Phil A.: Changing topic to the Pacific, brown tree snakes, smothering vines, beetles, and others are the problematic species. The terrestrial ecosystems are likely more impacted by the marine ecosystems at this point. Micronesia Biosecurity Plan is part of military buildup on Guam and is a DoD funded initiative (3.7mil). This is the single largest, most comprehensive invasive species plan ever. Covers all taxa and trying to figure out how to prevent invasives from getting in and moving around once they get there. Very collaborative inter-federal plan and includes regional experts. This plan has huge regional support. Phase 1 is a needs assessment. Phase 2 is a review and implementation. This is an example of invasive species gaining recognition internationally at the highest levels of government.

Al C.: Critical thing for Micronesia is freshwater on islands, as it is a critical resource for the islanders.

22. Informational: Updates on Climate Change Report and Pathway Management Plan Guidance

Introduction by Peg Brady:

Based on the input of the ANSTF/NISC prevention committee and other experts, the pathway diagrams initially developed in 2005 and 2007 have been updated and slightly modified. The previous categorization which included diagrams for living industry, transportation and miscellaneous pathways has been modified to address trade and living industry, transportation, and infrastructure and resource management pathways. For reference, drafts of the diagrams along with an explanatory note requesting ANSTF input on both format and content are at Tab #5 in the briefing books. Work on guidance for developing pathway management plans will recommence with the finalization of the pathway diagrams. Comments should be sent to Stas Burgiel by 30 June 2014.

Stas Burgiel: This is another NISC/ANSTF joint endeavor. We're looking to update the pathway diagrams. In 2005 and 2007, ANSTF/NISC built pathways diagrams and prioritization tools along with risk assessment and risk screening methods. In 2012 ANSTF requested guidance for pathway management plans and a list of pathways to be considered for plan development. Diagrams give panels good tool for identifying pathways that are critical to them. Pathway trees are in draft form and are more interactive. They pare out some of the miscellaneous categories better than the old diagrams. One new category is cross-cutting sectors (boots, bait, boats). The new diagram URL is within the briefing books.

ACTION ITEM: let Stas know if there are other categories that are missing or if there is a way to make this more useful. NEED feedback by June 30th.

Switching gears to climate change:

NISC / ANSTF have been developing joint recommendations to identify and address issues related to invasive species and climate change. The draft should be available for review soon.

ACTION: Once released, comments are due by July 31.

ACTION: Will be sent out in the next couple of weeks to ANSTF agencies and panels, NISC agencies, ISAC. Comments due July 31 submit to Stas and Tom Hall (APHIS) Thomas.c.hall@aphis.usda.gov. Will be revised and submitted to ANSTF at fall meeting.

23. Informational: Hydraulic Fracturing for Gas Development as an AIS Pathway

Introduction by David Hoskins:

During the November 2013 meeting, the MRBP recommended that the ANSTF complete a pathway risk assessment of water transportation associated with fracking and develop an issue white paper that outlines concerns. It was determined that we did not have the expertise to do a risk assessment and needed more information. It was agreed that we would invite someone to discuss fracking and AIS risks associated with it. Jason Harmon has agreed to talk to the group. He is Deputy Chief of the Office of Oil and Gas for the West Virginia Department of Environmental Protection in Charleston, WV. Until very recently, he was directly involved in West Virginia's water management program for horizontal drilling since the inception of the state's Horizontal Well Control Act, which established regulatory authority over water withdrawals for horizontal oil and gas exploration. He worked closely with industry to promote environmentally sound practices at water withdrawal sites including establishing minimum

criteria for entrainment and impingement prevention as well as in-stream flow measuring techniques.

Jason Harmon: Thanks for allowing him to present on this topic. I'll share my perspectives on WV horizontal drilling and horizontal fracturing. First of all, water management plans are required and hydraulic fracturing needs steady sources of water. Plans include when withdrawal will occur, how much, and methods taken to protect aquatic life (this is where AIS fall into).

What is hydraulic fracturing? It is not a new technique; it started in 1947. The new technology is the combination with horizontal drilling. A deep vertical hole is drilled, then the bit turns sideways and runs horizontally. Next, high pressure mixture of water, sand, and chemicals are injected and fracture the shale which releases gas. Some water comes back to surface, sand stays behind in cracks and allows gas to make it back to the surface.

How aquatic AIS could be a factor in hydraulic fracturing? Not aware of any cases of zebra mussel transfer into interior of WV. It takes 5-7million gallons of water to fracture each well. It is easy to see that the industry is dependent on water. Water sourcing is an issue, as it needs to be found, transported, stored, and disposed of. One well pad could need up to 30 million gallons of water. Closer you can get water, the cheaper it is. The DEP places minimum flow requirements on all surface water, including streams. In those cases, the search radius for water gets larger and larger, and can bring water from distant parts of the state to others. The Ohio River is a fallback source for water, but is a known location for zebra mussels. This is the threat of transport of AIS (specifically mussels, but also Asian carp) into the interior of the state that threat native mussels and other aquatic species.

Preventing AIS Transfer: DEP asks operators to put language in management plans to drain and dry equipment. Pipelines are another method of transport that avoid the use of trucks. Truck traffic is chief complaint of fracking, so pipelines are good alternative. Pipelines can include leaks which can leak water (w/ potentially AIS) into local waterways. Water storage in ponds is an issue because if they get too full they are able to discharge extra water by land application. If ponds break free, it could be another vector of AIS.

Wastewater disposal is usually dealt with by reuse, though it can also be disposed of by injecting into a well. There is also one approved treatment facility in WV. Land application is not allowed.

WV water management plans require description of steps taken to mitigate the risk of invasive species transfer. There are no BMPs currently.

24. Discussion: Hydraulic Fracturing for Gas Development as an AIS Pathway

Amanda Fernley, Antero Resources (Colorado based extractor):

We have a water intake in the Ohio River. We are aware of fish pathogens/viruses and zebra mussels and have been strategizing with DEP on how to take care of these problems. Education is a big part of their program, by training the issue to their employees. Current policy as of now: operating as a closed loop system- water is only used for down hole activities. Pipeline hydrostatic testing is all done with clean water. We have approval from DEP to treat water before on ground discharge before winters can freeze water and burst risers. We are attempting to make forward strides on invasive species releases.

Questions: John Navarro: Thanks for using Ohio River water as opposed to small creeks.

Alan Ellsworth: Can you treat water before piping it since it is a closed loop system?

Answer: We've moved away from overall treatment to batch treatment, as we don't want to store chlorine next to the Ohio River.

Peg B.: Have you thought about employing the HACCP strategy in your projects?

Jason H.: Absolutely, after the last HACCP training I attended, we implemented a HACCP based system for when we work in streams. Within the future of the water management plan program I envision a HACCP-like analysis of the potential risks for aquatic invasive species transfer.

Peg: Could HACCP be a requirement for a permit?

Jason H.: Yes it is on the table in the future.

Stas B.: Thanks to the two of you for the presentation. Obviously hydraulic fracturing is happening on other jurisdictions. How much does your overview of the process fit with other watersheds? Are these risks more general? Are you aware of other operations that use similar preventative measures?

Jason H.: I don't really know about any other states' activities. In WV our concern is the Ohio River, as we want folks to use that instead of interior waters. All operators are required to provide a narrative description on their water management plans in regard to AIS. Look for minimum mention of cleaning and drying. That is as far as we've gotten.

Amanda F.: Generally, yes, it is going to be trucking or pumping wherever this occurs, although piping is becoming the industry standard.

Sarah Whitney: In Pennsylvania, the trucks and equipment are of concern for having invasive species on them. Can we make a handbook to give to other states?

ACTION ITEM: Can we develop BMPs or guidelines for preventing the spread of AIS/all invasives in hydraulic fracturing? We'd need to look at this at the national level.

Mark M: Has there been thought using already impaired waters for use in fracturing (AMD, etc). Are there cases where the water is sent to municipal treatment plants for disposal?

Answer: Yes those waters can be used, but not really done. Used water is not allowed to be sent to municipal treatment plants.

Peg B.: Can we follow the model in regard to boat design? Perhaps the fracking industry has a group similar to boat designs and may be able to work with is?

Amanda F.: Usually an association per state, but unsure of national level. Eg, COGA in Colorado? **ACTION: Amanda will provide us with a list of these organizations.**

David Hoskins: Maybe send to the prevention committee? Thoughts?

Stas B.: 1) folks on committee are generalists, so they'd rely on experts and have to engage others. 2) it would be helpful to have a co-chair to help facilitate this and spread the workload.

[Post-Meeting Clarification] John Morris (USCG) collected information on bulk transportation of fracking wastewater by vessels:

- The Coast Guard has a draft Policy Letter under review titled "Carriage of Conditionally Permitted Shale Gas Extraction Wastewater in Bulk" (available at <http://www.uscg.mil/hq/cg5/cg521/>).
- It has also determined that shale gas extraction waste water is not covered under an existing Navigation and Vessel Inspection Circular (NVIC) 7-87, "Guidance on Waterborne Transport of Oil Field Wastes."

- Fracking wastewater is not an approved cargo listed in USCG regulations, so any shipper needs USCG approval to ship via the waterways in bulk.

25. Informational: Tunicate Workshop

Peg Brady: WRP Coastal Committee has asked for assistance with regard to the tunicate invasion in the Pacific Northwest coastal waters. There have been a number of conference calls exploring sites, agenda, keynote speakers, etc. Not much information to report at this point. August is the tentative date, but objectives of workshop are still being worked out. Stay tuned.

Lunch 12:10-1:15pm

26. Decisional: Snakehead Management and Control Plan *(Laura Norcutt, FWS)*

Introduction by David Hoskins:

The ANSTF requested that the Northern Snakehead Control and Management plan be updated to include more snakehead species and cover the entire US. A committee was formed in 2012, the draft document was provided to the ANSTF for review this spring, and the Final Draft is now ready for ANSTF approval. Laura will give an overview of some of the comments that were addressed. For reference, the Snakehead Management and Control Plan Executive Summary is at Tab #6 in the briefing books.

Laura Norcutt:

The final document is ready for task force approval. Laura, chair of the snakehead committee, gave an update on the plan. The plan is dedicated the plan to Walter R. Courtenay Jr. At the fall 2011 meeting of the MRBP, it was recommended that current snakehead plan be revised to expand past mid-Atlantic states. The committee included 29 members and they held six webinar conferences and multiple phone conversations and emails. They have already provided the plan to ANSTF twice, and are hoping it is ready for approval.

Major comments addressed include:

- Responded to request to include a budget: decided they couldn't develop a budget for plan implementation.
- Included RAMP assessments.
- Considered expanding plan past 10 species: moved from 10 to all snakehead species.
- Show how RAMP/Climatch assessments have been peer reviewed.
- Other risk assessments addressed and referred to in the document.
- Described how RAMP/Climatch assessments were determined.
- Refer to slides for more information.

Decision - The ANSTF approves the Snakehead Management and Control Plan.

Yes No Additional Action

Motion entertained by Mike Ielmini , Bill Bolen EPA seconded it. Approved by all.

27. Informational: National Invasive Lionfish Prevention and Management Plan

Introduction by Mark Schaefer:

James Ballard will provide an update on the development of the Prevention and Management Plan by the Invasive Lionfish Control Ad-Hoc Committee, and when the ANSTF can expect the final draft to be ready for their review.

James Ballard: Final draft of the Lionfish Plan went out to ANSTF this Monday for final review. This is the 20th draft of this plan. We've held four webinars in 2014 so far. This plan includes more species in trade than earlier drafts did. The Plan was developed to be used by regional folks to use and guide their regional plans. The plan tries to target sensitive areas. James went through the objectives and goals.

Action item: Comments on the draft Lionfish Plan due back to James by June 6th.

28. Discussion: NOAA Habitat Focus Areas

Introduction by Mark Schaefer:

NOAA's Habitat Blueprint provides a forward-looking framework for NOAA to think and act strategically across programs and with partner organizations to address the growing challenge of coastal and marine habitat loss and degradation. This presentation will describe the desired outcomes, guiding principles and current status of NOAA's Habitat Blueprint Initiative, including an overview of those Habitat Focus Areas in which issues related to invasive species have been identified, and some ideas for how awareness of invasive species issues can be increased among the staff working on these Focus Areas.

Dan Farrow, NOAA: Two goals today. 1) inform ANSTF of this part of habitat blue print, 2) solicit input from ANSTF on how we can better connect with invasive species folks with those developing habitat focus area blueprint implementation plans. The idea for the Habitat Focus Areas came about because we have started to turn the corner on overfishing and now we need to work on habitat conservation, but need to be able to demonstrate the impact that NOAA is making through this work. First, we need to consider where we are going to direct limited resources and what we're going to direct them towards? Blueprints are cross-NOAA initiatives (work with all offices of NOAA).

Great success of this project is we are seeing tremendous cross-office collaboration and having success at leveraging money from more resource-rich areas. This is a regional effort, so NOAA would like to identify regional experts. To date, there are 7 habitat focus areas (latest were Choptank River and Penobscot River).

By the end of this fiscal year, NOAA hopes to have 10-12 focus areas. Partners are key to this process. We need to put more meat on bones of objectives within the IPs, which is where invasive species issues can be addressed.

All of this information is on our website. I'd like to know what the top 2-3 actions are for you that I can take away so I can inform our staff about you.

Comment: USACE has two reservoir systems on the Russian River. Fish passage enhancements. Dina Kennedy is the USACE POC.

Comment: Many of the agencies hold invasive species calls. Can we get Dan on some of those agendas? The Panels have regional calls which would also be helpful.

Question: Have the focus areas compiled the invasive species challenges they are aware of? If so, they could just share that with us and we could provide comments.

Response: I know Alaska has done this. But, I don't know about each of the areas. There is likely local knowledge within each group.

Comment: Puerto Rico has a number of invasive species issues. The USACE has some ongoing work there where invasives have been a concern.

ACTION: Invite Dan to serve on agency invasive species calls and Regional calls.

29. Informational: Invasive Catfish in the Chesapeake Bay

Introduction by Mark Schaefer:

Blue and flathead catfish are considered invasive species in the Chesapeake Bay; they have rapidly expanded into nearly every major tributary in the Chesapeake Bay watershed. Blue and flathead catfish have potential to comprise a highly valued recreational fishery as well as negatively affecting native species and the Chesapeake Bay ecosystem. The NOAA Chesapeake Bay Office funds research on invasive catfish to help further understand their basic biology and potential negative effects on native species and human health. Research findings will help inform management and mitigation strategies. A report from the Invasive Catfish Task force is currently being drafted to develop recommendations to slow and reduce the spread of catfishes populations, minimize ecological and economic impacts, and improve public awareness.

Bruce Vogt, NOAA Chesapeake Bay Office:

Blue and Flathead catfishes were introduced to the Chesapeake Bay for sport fishing in the 1970s. Introduction was successful and they have since spread throughout the Bay. These fish are fast growers, highly fecund, and are primarily piscivorous. They are novel predators; never have had an apex predator in the Chesapeake Bay as common as these catfishes. This is a very inter-jurisdictional, inter-agency effort by the CBP and others. The Invasive Catfish Task Force workgroup drafted a report with 7 recommendations. A good removal method has not yet been identified; electrofishing has not been successful at removal catfish entirely.

VA Sea Grant is looking into testing electrofishing more thoroughly as an effective commercial fishing tool. Plan should be approved and completed in June and next steps are to implement some activities to meet goals and objectives.

The angling community has been vocal about not removing them, as they are an income source for charter operations.

Action item: Connect Dan Farrow and Bruce Vogt in regards to habitat focus area on the Choptank River with the critical habitat for herring, shad, and striped bass, which may be impacted by invasive catfish.

Comments:

Any effort to get local chefs to market this?

Bruce V.: Yes. In fact, we recently held an event to demonstrate preparation of blue catfish for food.

Question: Is the biomass really that high?

Bruce V.: Yes, at least in the James.

Question: Some of the Asian carp numbers in the Mississippi River Basin are high, but catfish numbers in the Bay sound like they're even higher.

Response: They are large.

Question: What is their range?

Response: Flathead catfish are more freshwater, but blue catfish have a higher salt tolerance.

Question: What are native catfish?

Response: Channel catfish were introduced about 100 years ago. White catfish are native, but may have been extirpated in some areas because of the invasives.

Question: One of your recommendations related to fish passage. Has the ANSTF ever waded into the Fish Passage issue?

Response: There was at least one meeting in the past where the issue came up. There are a number of fish passage projects that ANSTF members are aware of.

Response: Cindy (USGS) has received questions about fish passage. It's a risk assessment question – it may necessarily be worthwhile to open a fish passage barrier if it allows movement of AIS.

Response: Peg (NOAA) – is our role one of sharing case studies that highlight fish passage?

ACTION: Discuss fish passage need and AIS threats at a future ANSTF meeting?

30. Informational: Ballast Water Research

Introduction by Peg Brady:

In 2012 EPA and the ANSTF hosted a workshop in Washington DC to address research gaps identified in the 2011 NRC report on the relationship between ballast water-related propagule pressure and invasion risk. The workshop gathered experts in invasive species risk assessment, ballast water management, population ecology and other relevant fields with the aim of developing recommendations for future research. The output of this workshop was a 2013 report describing recommendations for a long-term, coordinated multi-Agency research effort. The report provides an assessment of the feasibility of the research effort, estimates of cost for various components of that effort, and guidance on coordination. For reference, the Ballast Research document Executive Summary is at Tab #7 in the briefing books. Thanks to John for doing the heavy lifting on this.

John Darling: The goal of the report is to take the next step beyond the NRC report from 2011. NRC did a good job of analyzing available data, and identifying what kind of research needs to be done. We tried to move one step further and come up with details on the kind of research and effort that would be required to achieve research goals.

The report's conclusions, briefly, were that we have the expertise to move toward understanding the risks of ballast water. The studies could be initiated fairly rapidly if funding is identified. Overall conclusion is that if research were aggressively pursued, the studies would help with environmental standards that can assist with understanding the risk-release relationship. A substantial dedicated funding source is needed over a period of approximately a decade. It's a pretty significant research effort. We have tried to parse it into pieces that could be independently pursued for less money if needed, especially in the budget climate we're in. NRC made the recommendations it did because there isn't a coordinated effort at the moment.

The report has different components of research related to different surveillance and logistics efforts. Agencies shouldn't look at the report and think that it should only be reviewed by EPA or Coast Guard, etc.; there are ancillary benefits to understanding invasion risk. The authors of the NRC seemed shocked that there isn't some kind of standardized surveillance program in the U.S., while other countries have this and have a better sense of how to better detect rare organisms and know what's coming into the country.

I've spoken with Greg Ruiz about publishing a piece for peer review on port surveillance that would help get this out for broader review by a larger audience.

ACTION: Confirm that information is available on ANSTF website.

Question: Can you clarify the cost?

Response: \$10M over 10 years is the lower range.

Comment: It might be interesting to tie some of this into the Arctic Implementation Plan.

ACTION: Share the report with Phil Andreozzi for distribution to partners involved with the Arctic Implementation Plan.

31. Discussion: ANSTF Report to Congress

Introduction by Peg Brady:

Dr. Susan Pasko is currently compiling information to draft an ANSTF Report to Congress (RTC) to show accomplishments from the 2007 – 2012 Strategic Plan as well as progress on the 2013 – 2017 Strategic Plan. The report will include the roles and activities from federal and ex-officio members, regional panels, as well as state and species management plans. A request for information was sent in February 2014. The data collected has been organized into a working draft for the report. The structure of the report and necessary next steps will be discussed. For reference, the Outline for the Draft Report to Congress is at Tab #8 in the briefing books.

Susan Pasko: A report to congress is required annually by the NANPCA, last one was done in 2004. The report is the story of the task force and the accomplishments of the ANSTF to inform Congress and the public. Clarence Fullard and I have been going through the information provided by members and panels and have really started to put together the vision for the RTC. We're pulling information from Don MacLean's 2010 fact sheets for state plan updates. The RTC is divided up by prevention, EDRR, control and management, research, and education/outreach. We don't want a laundry list of activities, instead we want to highlight high-level activities (QZAP, SAH!, etc). Also, we're going to talk about ANS budget issues and recommendations.

Timeline:

- Another data call to get responses from those that haven't sent in information (get in by July)
- Updated draft submitted to ANSTF for comment
- Final draft presented to ANSTF in November

What is needed?:

- Examples of accomplishments/challenges
- Review of agency/panel information
- Ideas for collaborative activities
- Recommendations to build a stronger program

- Pictures!

Comments:

Mike Ielmini: Any preliminary contact with Congress, or briefing them, specifically the Invasive Species Caucus?

Susan: No.

Dave H.: In person briefings could be better than just dropping a report on their lap. We should have a better plan.

ACTION: Consider consulting with/briefing invasive species caucus with regard to the Report To Congress.

Al C.: Are you focusing strictly on funding of ANSTF? Or are you going to report on agencies' funding?

Susan: Can reference NISC cross-cut, but we should focus on ANSTF panel and state funding.

Al C.: ANSTF was authorized by law. Chair of the committee that made it should maybe be a recipient.

Peg B.: let's at least ask our communications department to help us on how to develop/rollout a better RTC.

Dave H.: Let's make sure we know how to best get these reports to Congress and make sure they read them. I'm a former staffer and know that a lot of these reports end up on a shelf. Let's look at this report through the compendium of challenges, and also look at it as a marketing opportunity.

Mike I.: The projects we report on are funded with monies outside of ANSTF funding, but we're only reporting on ANSTF budget. We should be upfront and clear on funding issues and how they relate to projects.

Peg B.: When we get close to rollout of a product, let's get a communications group together and get input on what end product should look like. Again, closer to the final draft of a document.

Don M.: More clarification is needed. Budget information needs to be clarified in report (i.e., some projects are done without ANSTF money, but are reported as ANSTF projects).

Mike I.: Do we even want to report on dollars, or just talk about accomplishments?

Peg B.: There may be models (coastal zone programs, etc.) to look at to see how they report it. Dollars need to be discussed (what we do and how much we do it with). Let's avoid cross-cut, as it will consume our time.

Dave H.: Let's focus on the work we do with the money they give us, and how we've leveraged other monies and the great work we've done so far and that we're a good investment. Let's also talk about the usefulness of using money for control. We need to make the case that we're a good investment in avoiding things like quagga and zebra mussels and Asian carps. Make clear we can't win the war if we're fighting one battle at the time. We should bring in Congressional folks who do this for a living.

What kind of timeline do we want?

Dave H.: we need good progress on nailing down the substance sooner rather than later.

ACTION: Send out another request and get all info by mid-June. Then review all information received.

ACTION: Peg/NOAA will host discussion with communications folks after we get all info.

Jason G.: Get final draft done by November, as best impact will come if delivered at right time.

Dave H.: Talk to congressional and communications folks shortly after we get what we need. We should step it up.

32. Informational: Panel Updates

Mark recognized the Panels for their important efforts and leadership in these challenging times. Thanks to everyone for your continued commitment to the ANSTF.

Great Lakes Panel

- We met in the Fall in Ann Arbor. We had a session on grass carp. We met in Indiana in the Spring. The big issue there was the CAWS. We also toured the Notre Dame eDNA lab.
- John was voted as Chair. Luke Skinner has stayed with the Panel for meetings. Bob Wakeman is the Vice-Chair. We have research, information, and policy coordinating committees.
- The I&E Committee is working on the Water Quality Agreement, Annex 6.
- Research Committee is examining GLMRIS.
- Policy Coordinating Committee has submitted their priorities document, and is working on the GLMRIS report.
- John's Vision: Moving big rocks like ballast water and GLMRIS. We also want to have a joint meeting with the MRBP.

Northeast Aquatic Nuisance Species Panel

- Mark Malchoff is the sole co-chair.
- The NEANS website has been updated.
- We put together a RFP for rapid response, about \$1,000, which will probably be used on an emergency basis.
- We're meeting next week in Vermont, and will have a presentation by local pilots on what they're doing to prevent invasives, and another on Chinese mitten crabs.
- We're dealing with a budget slash on travel, which is making meeting attendance difficult.
- I attended a hydrilla workshop in April, which featured info on chemical treatments. Historically, chemical herbicide treatments have not been an option in the Adirondacks, which presented a huge challenge. The workshop was a good opportunity to have park and state officials talking together about the problem.
- Meg – We want to host a HACCP training in the Northeast. We're discussing that next week, and could offer it as a service to a lot of people outside the panel, and might help us establish some new connections.

Gulf and South Atlantic Regional Panel

- We met last month in Gulfport, MS. Tamesha Woulard from HQ FWS and discussed how importation works and what comes through the border. There is some concern about how some species are reported. For example, we don't know how many lionfish are coming through.

- **Jeff Herod** has asked the Panel to review proposals he received this year based on research and management needs in the area.
- Mexican partners recently completed a book on introductions, and are looking to translate it into English.
- Strategic Plan workgroups have met to complete their respective pieces.
- A meeting for June is planned.
- Elections have been held. Pam is the Chair.

Question: In the Caribbean there are efforts to push for lionfish consumption. Does it make a difference? Has it been tried in Florida?

Answer: The evidence isn't clear that it works, but there are some attempts.

ACTION: Consider inviting Tamesha Woulard from HQ FWS to speak at the next ANSTF meeting about border security and what comes through ports.

Western Regional Panel

- The panel is working on a European Green Crab response.
- Building consensus on QZAP – at our last workshop, we didn't get to education and outreach. We'll have a webinar or something similar in August to follow-up.
- We formed a Fiscal Sustainability Committee. We don't have anything to report yet as an operational solution.
- We've tried to increase member relationships. Meeting once a year wasn't adequate, and we're getting good turnout at more regular meetings.
- The Coordinating the Coordination Committee – At our annual meeting in Portland, there are more groups interested in AIS in the West. But, we're all in different directions. We're reaching out to different groups to identify commonalities and improve communication.

Mississippi River Basin Panel

- The MRBP has not met since the last Task Force meeting. We're meeting July 8-10 with MICRA in Athens, TX. Presentations include National Assessment for Diploid/Triploid Grass Carp report; this will be available as a webinar.
- We would like to see more participation on our panel from Federal agencies, and we're looking for more of that.
- We hosted a HACCP meeting in Carterville.
- We are holding elections soon for a new Chair.

ACTION: MRBP and MICRA will send out info for Diploid/Triploid Grass Carp report webinar information.

Mid-Atlantic Panel

- The Panel met December 17-18 in Annapolis. We heard about blue catfish and SAH! We also heard from PA about a new discovery of New Zealand mudsnails. The State College discovery is much more extensive, and is near a hatchery where water is moved around.
- We are conducting an RFP with our Panel funding. We changed the criteria to open it up for any amount. We got 13 proposals totaling over \$200,000. We will review those proposals at our next meeting.

33. Decisional: Panel Recommendations

Western Regional Panel recommendations:

- 1) Panel funding: Provide increased support to the panel(s). We appreciate the \$40K we are getting but we are having difficulty maintaining our operations with those funds.
 - a. Response - David Hoskins - Funds have been dropped by FWS because of general funding cuts. We have maintained the \$40,000 in FY14 even as we make cuts elsewhere. We're optimistic that we can go up from here.
- 2) QZAP support: Provide funding to support highest priority implementation components of QZAP.
- 3) Stop Aquatic Hitchhikers: Ensure Stop Aquatic Hitchhikers! continues to receive funding and engage in evaluation of national brand consistency and efficacy.
 - a. It's good to hear that an advisory committee has been formed to explore this issue.
 - b. Response - David Hoskins – We recognize the importance of the program. We couldn't provide direct support, but we directed SAH! to the R2 funds that are available, and we understand that those discussions are ongoing. We'd like to get the Protect Your Waters website back up and reinvigorated. Congress has increased funding but targeted it toward species-species issue (Asian carp and zebra mussels).
- 4) Invasive tunicates: Solidify fiscal and in-kind support of a Pacific states tunicate workshop to identify management and research needs across the region.
- 5) Biocontrol research: Reinstate funding to support USDA and USACE biocontrol research on aquatic weeds.
 - a. USACE has not been advised yet of its funding. We are coordinating with USDA and sending researchers to China and Korea for biocontrol for hydrilla. We're also looking at other species. We're not in the FY15 budget, so we have to revisit this on a yearly basis.
- 6) Green Boats: Discuss the status of assembling an ANSTF committee with manufacturers and other interested parties to address boat manufacturing options related to AIS.
 - a. Some seed money has been provided.
- 7) Find interested and capable members to fill vacant federal agencies positions: Several agency membership positions are currently vacant within the WRP. Assistance in determining appropriate contact persons or members is needed.
 - a. Great Lakes Regional Panel concurs. APHIS is one noticeable gap.
 - b. Don – Typically ANSTF has stayed out of Panel issues unless requested. The ANSTF does an initial member review when a new panel is formed, but after that the panel is left to run itself unless it specifically asks for help with membership or someone brings up a membership issue. The ANSTF will help draft letters from the co-chairs seeking out new members if necessary.
 - c. ACTION: Panels need to let Laura know what vacancies exist on respective Panels. Laura will follow-up to determine strategy about how to move forward.

Gulf and South Atlantic Regional Panel Recommendations:

- 1) The GSARP recommends that the ANSTF explore the possibility of listing all species of lionfish in the genera *Pterois*, *Parapterois*, and *Dendrochirus* as injurious under the Lacey Act.

- a. We have two introduced species of lionfish, and have seen the effects that they have. We know there are others that are sold in trade. It would be nice to get ahead of things rather than react.
- b. David Hoskins – Prevention is important. However, we have limited staff. We have to be strategic about how we list species because the listing process is expensive and time-consuming. We're doing ecological risk screenings to identify the highest risks and greatest needs. We would need to look at the proposal in that context in order to use resources most effectively.
- c. Pam – We're glad to hear that FWS is looking at this issue and working on prevention.

Response - Dave Hoskins - FWS agrees to focus on prevention. There are limited staff (Sue and Jason) to get species listed and the process is expensive and time consuming. FWS is going thru ecological risk screenings to cast a wide net and understand species of greatest need. Lionfish need to be examined at national level with other invasive species and see where they are at a national priority.

34. Public Comment

Mary Kate Wood thanked everyone for allowing her to participate.

35. Meeting Summary

Meeting was adjourned at 5:28pm.

The next meeting of the ANS Task Force will occur on first week of November, at the new headquarters of the U.S. Fish and Wildlife Service in falls Church, Virginia.