

ANS TASK FORCE

Spring Meeting

May 26-27, 2004 Task Force Minutes

Columbia, Missouri

**ANSTF Meeting Notes – Spring 2004
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DAY ONE - MAY 26, 2004 - WEDNESDAY

WELCOME, INTRODUCTIONS, AND APPROVAL OF NOVEMBER, 2003 MEETING SUMMARY – *Tim Keeney, Deputy Assistant Secretary for Oceans and Atmosphere, U.S. Department of Commerce/National Oceanic and Atmospheric Administration.*

TASK FORCE CO-CHAIR KEENEY: Good morning. Can everyone hear me? I'm Tim Keeney, Co-chair of the Aquatic Nuisance Species Task Force.

TASK FORCE CO-CHAIR PARKER: And I'm Mamie Parker from Fish and Wildlife Service, also Co-chair of the Task Force.

TASK FORCE CO-CHAIR KEENEY: I'd like to welcome everybody to our meeting for the next two days. I've got to leave this afternoon to get to another meeting tomorrow morning, but you'll be well cared for by Mamie, who will take over. We'll switch back and forth all the time. I'd like to welcome members of the Aquatic Nuisance Species Task Force. Special thanks to Erin Williams from the Fish and Wildlife Services Stockton Fish and Wildlife Office for coming out to Washington, D.C. to help plan the meeting, since the Branch of Invasive Species has been understaffed recently. I'd also like to recognize Jay Rendall and Mike Hoff, who are co-chairs of the Mississippi River Basin Panel, for their outstanding work and assistance in organizing and planning yesterday's field trip on the Missouri River. Unfortunately it was called off because of weather, but we're going to have sort of a virtual trip today. So imagine being on the river. And they're going to point out various things that are out there, and we can all get better educated. I'm sorry that it didn't come off because of weather. That's the worst situation where all the planning is done in advance and everybody's excited about the event, but at the last minute you have to cancel it. But I really appreciate the two of you for all the great planning you have done. That support is important.

Before we get started, I'd to depart from our formal agenda for a few minutes, because I think we need to acknowledge someone who has really been the embodiment of the Aquatic Nuisance Task Force, at least since I've been here, which has been about two years. In our last meeting Sharon Gross announced that she'd be leaving as the executive secretary of the Task Force to move on to the U.S. Geological Survey. While she's still here at the table, we are losing the person who has done virtually all of the work that has kept the Task Force going. I'm not sure that we can properly appreciate all of the efforts she's put in. In addition to being the executive secretary of the Task Force, Sharon has also been the branch chief of the Fish and Wildlife Service's Branch of Invasive Species.

And in what I think was probably a wise move, Fish and Wildlife Services decided that no single person could do everything that's she's been doing, and has divided the job into two positions. From a Task Force perspective, Sharon was responsible for seeing that action items were implemented, state management plans were reviewed and species management plans were finalized. One of the reasons that we changed the structure of the Task Force committees a couple of years ago was that about 20 committees and working groups reported directly to Sharon. hat can only last for so long, right? She also was the individual that worked with each of the regional panels at times with a touch of humor, at times with a touch of cajoling, and at times by asking us to take a reality check. She kept the Task Force working together on a consensus basis. That's a sign of a true leader. On behalf of all of the members of the Task Force, I'd like to express our gratitude for your efforts, Sharon, and we have something to present to you.

TASK FORCE MEMBER PARKER: Speech!

TASK FORCE MEMBER GROSS: Thank you very much. I appreciate it. I know that you guys have appreciated me all those years. I am looking forward to being on this end of it now. I really am looking forward to being a participant being able to help move things along, instead of always being the one from the top down telling people what to do. I expect to have that cajoling now, as well, to be pushed along to participate. And I just hope I hope I can fulfill our role here, and hopefully make a difference from this end. Thank you very much.

TASK FORCE CO-CHAIR KEENEY: We look forward to your further continued work with the Task Force. Everett Wilson has been the acting executive secretary since Sharon's departure. And Everett will continue to do so

until a permanent replacement is found. The vacancy announcement will be posted in the next five days. In addition, Kari Duncan has recently been selected as the chief of the Branch of Invasive Species in the U.S. Fish and Wildlife Service in the Washington office. Thank you, Kari, for taking that job

TASK FORCE CO-CHAIR PARKER: Mr. Co-chair, I'd like to also mention the fact that Everett has two jobs. He's acting as my assistant director for the U.S. Fish and Wildlife Fisheries and Habitat Conservation. So we want to celebrate him for doing a good job in making sure that things do run smoothly. Can we do that publicly?
[Audience applauds]

TASK FORCE CO-CHAIR KEENEY: The Task Force has undergone a few changes over this year, and we have a couple of new members and some new departures, which I'd like to talk about briefly. We'd like to welcome some new additions to the Task Force. At the last meeting the issue was raised and agreed upon that the new Federal Task Force members should be solicited from the U.S. Geological Survey and the Smithsonian Environmental Research Center, also known as SERC. From the USGS we'd like to welcome Sharon Gross.

TASK FORCE MEMBER GROSS: I'm actually just the alternate. The actual member is Dr. Sue Haseltine, the Associate Director for the U.S. Geological Survey in the biological division. I will be her official alternate.

TASK FORCE CO-CHAIR KEENEY: That was in my script. Sharon Gross, who has been identified as the alternate representative for Dr. Sue Haseltine, who could not be with us today.

TASK FORCE MEMBER GROSS: I anticipated that.

TASK FORCE CO-CHAIR KEENEY: From the SERC we'd also like to welcome Dr. Whitman Miller.

TASK FORCE CO-CHAIR KEENEY: Welcome aboard. And his alternative will be Dr. Greg Ruiz, who could not be with us today. We also recently learned that Ed Theriot from the Army Corps of Engineers has been deployed to Iraq. Al Cofrancesco, who has been a regular attendee of the Task Force meetings as an alternate, is now the official Corps of Engineers representative. He's preparing a letter to this effect right now. Leo Dunn has left us for a career change. He's joined the Pennsylvania Board of Probation and Parole. The Chesapeake Bay program has not yet chosen a replacement for Mr. Dunn. Lisa Windhausen will be replacing Bill Howland as a representative from the Lake Champlain Basin Program. Welcome, Lisa. *[Audience applauds]*

TASK FORCE MEMBER WINDHAUSEN: Thank you.

TASK FORCE CO-CHAIR KEENEY: Norm Stucky, Chair of the Mississippi Interstate Cooperative Resource Association, has also left us. He retired at the end of the summer, and will be replaced by the new chair of the Interstate Cooperative Resources Association, Mr. Doug Nygren, from the Kansas Department of Wildlife and Parks. Welcome, Doug. *[Audience applauds]*

TASK FORCE CO-CHAIR KEENEY: At this time I ask the Task Force members or the representatives to introduce themselves. And we'll start with

TASK FORCE MEMBER WINDHAUSEN: Lisa Windhausen, Lake Champlain Basin Program.

TASK FORCE MEMBER ZAJICEK: Paul Zajicek, National Association of State Aquaculture Coordinators.

TASK FORCE MEMBER KAHABKA: John Kahabka, representing the American Public Power Association.

TASK FORCE MEMBER RILEY: Larry Riley from Arizona Game and Fish Department, representing the International Association of Fish and Wildlife Agencies.

TASK FORCE MEMBER MILLER: Whitman Miller, Smithsonian Environmental Research Center.

TASK FORCE MEMBER KATZ: I'm Marilyn Katz from the U.S. Environmental Protection Agency, and I'm here for David Redford as is Katherine Bruce sitting in the audience.

TASK FORCE MEMBER MOORE: Kathleen Moore with the Coast Guard.

MR. WILKINSON: Dean Wilkinson, NOAA.

TASK FORCE CO-CHAIR KEENEY: Tim Keeney, deputy assistant secretary of commerce for Oceans Atmospheric.

TASK FORCE CO-CHAIR PARKER: I'm Mamie Parker.

TASK FORCE MEMBER WILSON: Everett Wilson.

TASK FORCE MEMBER WALLACE: I'm Bill Wallace from USDA's Animal and Plant Health Inspection Service.

TASK FORCE MEMBER COFRANCESCO: Al Cofrancesco, U.S. Army Corps of Engineers.

TASK FORCE MEMBER GROSS: Sharon Gross, U.S. Geological Survey.

TASK FORCE MEMBER ZANETELL: Brooke Ann Zanetell, Department of State.

TASK FORCE MEMBER McDOWELL: Karen McDowell, San Francisco Estuary Project. I'm here for Marcia Brockbank.

TASK FORCE MEMBER NYGREN: Doug Nygren, representing the Mississippi Insterstate Cooperative Resources Association.

TASK FORCE MEMBER RIPLEY: Mike Ripley with the Chippewa Ottawa Resource Authority in Sioux St. Marie. Faith McGruther was the official ex officio member for the Task Force for CORA. And I'm representing the Native American Fish and Wildlife Society, and I have been selected to be her replacement so she can retire.

TASK FORCE CO-CHAIR KEENEY: Very good.

TASK FORCE MEMBER RIPLEY: I'm working with Don MacLean to get that official from this Task Force.

TASK FORCE CO-CHAIR KEENEY: Welcome. With regards to meeting management, I'd like to review a few housekeeping details about how we run our meetings as much for my benefit as for others, but also there are enough new people that I think it would be worthwhile. Materials: All Task Force members should have received a briefing packet in the mail a couple of weeks ago. If you didn't please let Don MacLean know, because we may have an incorrect address for you. These same packets are also available at the registration table for meeting attendees if you don't already have one. Also the blue folders that you received have several pieces of information that have been received since the briefing packets were mailed. This information is also available at the registration table for meeting attendees. If anyone has any handouts, please be sure that you put the copies on the registration table.

As you know, the Task Force meetings are open public meetings, and we are very interested in public input. As we go through the agenda, we'd like to try to open up every agenda item so that people in the audience have an opportunity to provide input during the discussion, because it makes for a much better discussion if we get immediate response, if there is any. However, if we begin to run behind schedule, we'll reserve the right to hold the public input until the formal public comment period, which is in the schedule. We believe we have left sufficient time that we will not have to do that. As a logistical note, however, after each presentation we'll first ask Task Force members if they have any comments, and then ask the general audience for questions if there is sufficient time. We will have an opportunity for public comment on Wednesday afternoon and Thursday before the close of the meeting if we need it. Anyone who wishes to comment must sign up on the public comment list. This list will be available on the registration table through lunchtime today for this afternoon's comment period. So please sign up if you're interested in some kind of formal public comment. A new sign-up sheet will be available tomorrow morning through the morning break period for Thursday's comment period. We need to know ahead of time who would like

to comment so we can give an order to those who wish to comment and allow for enough time. The Task Force has numerous regional panels and other committees and working groups. These committees are very important in carrying out the mission and goals of the Task Force.

Each committee has roles and responsibilities outlining what they do. At each ANS Task Force meeting, you'll hear from those regional panels, committees and work groups that have important updates, products that need to be approved by the Task Force or that require assistance from the Task Force to accomplish their tasks. I had the pleasure of attending the regional panel for the Great Lakes Panel last month in Ann Arbor, Michigan.

Final agency reports: At the last meeting each of the federal agencies presented an update on their ANS-related activities. At that meeting we discussed doing that at every meeting. Now we have an alternate suggestion. With the addition of two more federal agencies to the Task Force, these reports would take up a significant part of the Task Force meeting schedule. The Co-chair has proposed that the federal agencies provide a written summary of their ANS-related activities to be provided in the briefing book for the companies at each Task Force meeting. By doing this, we'll have more time on the agenda for actual work and a record of what the agencies are doing. It will also allow us to request more detailed presentations on top of the reports when necessary. So we have a topic for discussion here, and the question is how many agencies should we highlight at each meeting? How to choose which ones, will be based in part on what topics are hot, what invasives are new or in the news and what agencies have something to bring before the Task Force.

TASK FORCE MEMBER WILSON: Yeah.

TASK FORCE CO-CHAIR KEENEY: Do we have any discussion on that?

TASK FORCE MEMBER GROSS: Well, you know, maybe once a year to have, you know, the agency activities. We might get some duplication, you know, unless there's some new activities.

TASK FORCE CO-CHAIR PARKER: Are you proposing a written report rather than what we've proposed here?

TASK FORCE MEMBER

GROSS: Yes. I think the presentations that we did in the fall, you know, will basically tie into what we expect to get for 2004, and these are the activities that we'll do for 2004, on our 2004 budget. If we were to have two presentations a year, we may not have new information. But maybe that's what we do. At the spring meeting, we can just provide any new information that's different from the last time. But I'm just wondering if it shouldn't just be based more on the budget. I know when we first developed the strategic plan, we talked about, and, Bill, you can correct me if I'm wrong, we talked about focusing our fall meeting on identifying, what the agencies were doing for that year so that the regional panels would know.

TASK FORCE CO-CHAIR KEENEY: To coordinate activities?

TASK FORCE MEMBER GROSS: Yeah. You know, because typically at the beginning of the fiscal year with most of the agencies they may not have a budget yet, but they do have a general idea of what's going on. Bill, correct me if I'm wrong, but that was the suggestion I believe you made.

TASK FORCE MEMBER WALLACE: I think what we talked about in the strategic plan was having the regional panels present their priorities to the Task Force in the late fall/winter meeting. And that would provide input for developing the budgets of the federal agencies and the Task Force's actions for the coming year. I'm not sure what the best timing for the federal meeting would be, but it might be in the spring after those priorities from the regional panels and other input have been incorporated into plans for the Federal agencies. So it may be that the spring meeting would be a time for the presentations from the agencies.

TASK FORCE CO-CHAIR PARKER: So the question is, how many? Because we believe that having every agency report is somewhat excessive. And what we'd like to do is to have every agency do a written report, but highlight perhaps three or four or two or three agencies in terms of an oral presentation. And I guess our question is four adequate or is three adequate? Mr. Chair does it matter to you at all?

TASK FORCE CO-CHAIR KEENEY: I think it probably doesn't matter all that much. It allows the Co-chairs to decide what they think wants to be emphasized, and also allows for some discussion beforehand to understand what it is that people think that is particularly noteworthy to be discussed at the meeting.

TASK FORCE CO-CHAIR PARKER: Right.

TASK FORCE CO-CHAIR KEENEY: Okay. So I think that your idea of the budget, though, is very important, because it relates so directly to our strategic plan. And we need to understand what the members are doing. So I'm sure that'll be a hot topic item for discussion at the appropriate time.

TASK FORCE CO-CHAIR PARKER: The written reports will also be used for our annual reports, which will be good, because we'd have some things already in writing. Everett's going to talk more about that.

TASK FORCE CO-CHAIR KEENEY: Also you were sent an e-mail last week regarding the strategic plan discussion and the dress code. I was going to say, have I violated the dress code? This is business casual, right? Well, it all depends on what business you're in.

TASK FORCE CO-CHAIR PARKER: We didn't recognize you without your bow tie.

TASK FORCE CO-CHAIR KEENEY: It's in my pocket. With your approval we'd like to propose that the dress for the ANSTF meetings be business casual. And we see these meetings as an opportunity for the Task Force members to come together, roll up their sleeves and get important work done. So I think it fits the spirit of the meeting is to have the dress code business casual.

TASK FORCE CO-CHAIR KEENEY: All right. Thank you. There is a modified agenda in the blue folder on the registration desk. Please use this agenda instead of the one that we sent you in your briefing packets. Does everybody have those, and does anyone have any modifications to the agenda that we need to discuss now?

TASK FORCE MEMBER WILSON: Mr. Chairman, we actually do have one more modification we need to make. Just to inform you Al Cofrancesco from the U.S. Army Corps of Engineers would like to speak for a few minutes on the barrier for the Chicago Ship and Sanitary Act.

TASK FORCE CO-CHAIR KEENEY: Okay. So noted. Great. Thank you. One of the things that we agreed to start doing in a previous Task Force meeting is review the action items from the previous Task Force meeting. At this time I'd like to review the action items from the November of 2003 Task Force meeting at Arlington, Virginia. Everett, do you want to just quickly run through these?

TASK FORCE MEMBER WILSON: Sure. I can do that. Determine whether Guam is eligible for funding, if they develop a state ANS management plan. We completed that and according to a preliminary review by the solicitor, the Fish and Wildlife Service solicitor of Guam is not eligible to receive state ANS management plan funding and should participate in the Pacific Islands Panel, if created. Ensure regional panel websites are referenced on the ANSTF website. That's complete. Send Sheila Tooze a list of Canadian representatives on the various regional panels - that was done. Executive Secretary to try and get Mexican representative on regional panels - that's in progress.

Gulf of Mexico Panel to submit a proposal for expansion of the panel to become the Gulf of Mexico and South Atlantic Regional Panel is complete. The Gulf of Mexico Panel invited North Carolina and South Carolina and Georgia to join the Gulf of Mexico Panel. So that would include the South Atlantic then. Georgia was interested, South Carolina declined and North Carolina did not answer. Based on these responses, the Gulf of Mexico Panel decided to withdraw its proposal, since it wants the three states to join as a block. We'll keep working on that and see what we can come up with. But we're not sure why South Carolina declined it, why North Carolina didn't respond, but we will keep working there.

And the ANS Task Force was to talk to Intel Science and Engineering Fair in person after Gulf of Mexico Panel Science Fair Protocol is finished, and that's in progress. Develop and hold a state ANS management plan summit to discuss successes, failures, do's and don'ts, annual reporting, et cetera. This has not yet been initiated. We're

waiting for the new executive secretary. The Acting Executive Secretary didn't have time. Approval of state management plans We sent letters of notice to the states whose management plans were approved. That was Hawaii, Indiana and Wisconsin, including one tribe in Wisconsin.

Approval of control plans. We sent letters of notice to committee heads for the European Green Crab and the Chinese Mitten Crab Control Committees. We also sent a letter of notice for a new regional panel - the Mid-Atlantic Regional Panel - to Leo Dunn, who is no longer with us, but giving him, or his official his representative now, official approval for the panel. The ANS Task Force staff was to make revisions to minutes from New Orleans meeting that were approved with revisions, and that's done. The minutes from the New Orleans meeting are complete and you have them in your packet. Another item was for the Task Force to set up the Control Committee, the Monitoring Committee, and reinvigorate the Research Committee and set up the new working groups and all those are discussion points for this meeting. And I'll cover them shortly. Thank you.

TASK FORCE CO-CHAIR KEENEY: Thank you. Another change you'll notice in our Task Force meetings is the use of a professional note-taker to record the Task Force meeting. Ma'am, could you just introduce yourself?

THE REPORTER: Stephanie Morgan.

TASK FORCE CO-CHAIR KEENEY: Thank you.

THE REPORTER: I'm with Midwest Litigation Services.

TASK FORCE CO-CHAIR KEENEY: Thank you, Stephanie.

THE REPORTER: You're welcome.

TASK FORCE CO-CHAIR KEENEY: Now, this is being done to turn the minutes around faster, reduce the burden on the administrative staff of the Task Force and allow them to interact with the members and be more fully engaged in the meetings. Approval of the November 2003 meeting minutes: A summary of the meeting in Arlington, Virginia of November 2003 is included in the packet. Does anyone have any changes or modifications to the meeting summaries? [No response.]

TASK FORCE CO-CHAIR KEENEY: Hearing none. From this meeting forward we're asking presenters, working group and committee chairs, regional panels and others to submit written abstracts or updates prior to the meeting for inclusion in a briefing book or the blue folder. This will allow us to track progress, go back to our notes before the next meeting and provide a written information for Task Force reporting requirements. So I request approval of the minutes if there are no changes. Do we have a motion to approve?

TASK FORCE MEMBER WILSON: So moved.

TASK FORCE MEMBER COFRANCESCO: Second.

TASK FORCE CO-CHAIR KEENEY: All those in favor of approving the minutes, say aye.

GROUP: Aye.

TASK FORCE CO-CHAIR KEENEY: If not, say nay. *[No response.]*

TASK FORCE CO-CHAIR KEENEY: The ayes have it. The November 2003 minutes are approved. The next thing on our agenda here is we're going to talk about the Task Force strategic planning limitation. Everett Wilson is going to give us a presentation of implementing the strategic plan that was approved in 2002. We hope to engage you in a dynamic discussion regarding our direction for the future and actions that we can take to implement the strategic plan, as well as establishing short-term and long-term priorities, including the establishment of Research Control and Section Monitoring Committees. And I personally am very supportive of a strategic plan and that it really should run everything that we do. And so I'm looking forward to this discussion. And hopefully we can have some good discussion amongst the Task Force as well. Thank you.

ANSTF STRATEGIC PLAN DISCUSSION - *Everett Wilson, Acting Executive Secretary,
U.S. Fish and Wildlife Service*

TASK FORCE MEMBER WILSON: Hopefully in a second we'll have a picture on these things. As usual, when you do a PowerPoint, you think you've got it all together and then sometimes it doesn't show up. As you can see, I am the acting for everybody. I do a lot of different jobs but the ANS Strategic Plan that the Task Force put together in 2002 is something that I really embraced. I have read it several times, I've studied it and I really like it. What we're going to talk about today is implementing that plan. How are we going to move this thing forward by implementing the plan? I want to describe the status of the strategic plan, to provide a rationale for an operational plan for the strategic plan, identify the requirements for this process and describe the process. One thing I should tell you is this is not going to take an hour, so we do solicit comments, your ideas as to how to do this. I'm going to be able to run through this in about 20 minutes, so we're going to have a while for discussion.

When we looked at the strategic plan, it was implemented or signed in 2002. It's supposed to guide the Aquatic Nuisance Species Task Force through 2007. The question is, how are we going to do that? We're going to take the plan, sweep it off, try to figure out how to implement it. We believe the answer is developing an operational plan from that. I think the plan is great. It's short, it's simple, it identifies actions that need to be taken and provides a way for everyone to participate. So those are really important parts of this plan. You know, lots of plans are so big that it takes a notebook to carry them around. This is fairly short, fairly simple. It identifies a lot of actions that need to be taken, and it provides a way for everyone to participate. Those are really important points from the plan. I want to tell you a little story, too, and as part of this I want to relay the importance of ANS. As I told the Asian Carp Working Group on Monday, snake heads have taken over the minds of the people in Washington, D.C. And that's not a difficult thing to take over the minds of the people in Washington, D.C. but, you know they really have.

TASK FORCE CO-CHAIR KEENEY: It doesn't take much.

TASK FORCE MEMBER WILSON: We had an unprecedented request for a hearing originally on snake heads and Asian carp for the whole House. It was then scheduled to be a briefing, but still for the whole House. It is was then cancelled, but there is still great interest in doing this and something's going to happen probably when the House comes back into session. So ANS are important. To have a hearing before the whole House, I think, for a natural resource issue is a very unprecedented request and one that we should take very seriously. And as noted on this slide, the ANS Task Force can lead the way in deciding what we're going to do about ANS and how we're going to respond to Congress when they have such requests, but the whole Task Force has to work through it.

The most important thing about the ANS Task Force, perhaps, is that it has legislative standing. There are a lot of other people working on ANS issues, but the Task Force has legislative standing. And that's very important to how powerful we can be in changing what goes on. There's a viable infrastructure. This Task Force has been in place for a number of years. You've really done a lot of things. There's diverse support. You can see all of the different federal agencies, all of the NGOs, and all of the other groups. The states are very interested in the Task Force and what we're doing. And we have a history of actually producing results. You look at the voluntary ballast water guidelines that were produced, the 100th Meridian Initiative, focused research. We've both been able to direct and focus on research.

The Stop Aquatic Hitchhikers Campaign has really taken off and there's also the biological studies that we've implemented in support of ANS. We also have a number of management plans out there, some that have been very successful and others that are just beginning to see some success. But those are all people working together to solve an ANS problem. This Task Force has been instrumental in moving those management plans forward. If we can implement our plan, all of you and your agencies can use the plan to elevate ANS issues and resources. We all need resources to address this issue, like we need resources to address other issues.

This plan will allow you to use the plan in your budgets that are coming up to say that there is a plan and that you are following the plan. There are other federal and NGOs interested in the plan and they are also using it to elevate your ANS issues and get resources to hopefully solve those issues. Working together we can also accomplish much

more. If each of us go out and do this individually, we're not going to get the problem solved. But as a Task Force, and as federal and state and NGOs working together, we can accomplish much more. Finally, we can produce results. We've proved that we can produce results. We can produce better and more results if we'll implement this plan. You know, we're all on the island together just like those gators sitting there, and we can certainly, by working together, accomplish a great deal more. Perhaps we can grow the island a little bigger so that we all have a little more room, and we can maneuver and do some more things. But we do need to change our collective mindset and implement the plan. We need to go through the plan, evaluate and analyze the objectives, define performance measures.

But what is a success? When have we succeeded? We have performance measures in there in some ways, but we don't have any way to tell when we've succeeded - when we've actually accomplished what the goal or the performance measure was. We need to develop strategies for implementation. How are we going to get there? We can talk about it all we want. But if we don't actually take some actions and have some strategies for getting there, we're never going to manage to accomplish what we need to accomplish. We need to go back redefine the needs.

The needs that are identified in the plan are certainly still valid, but there are probably additional needs that we need to look at and redefine. We need to design criteria to prioritize and select projects. What projects are we actually going to do, how are we going to make the decisions that those are the projects that we're going to do? Finally, we need to implement the decisions that we make. If we make decisions, we have to implement those decisions and get something done.

And then finally, we need to evaluate and report on our progress. One of the things that we haven't done very well is telling people what we've done. And that's a very important part of this Task Force. You have to be able to report on what we've done and make sure that people know that we are doing things. So what we are proposing right now is to take some baby steps towards implementing the plan. There are some things that we're going to propose that we, the Task Force, say "yes, we will do." The first is to begin implementation of Goal 1, Objective 1.4 and Goal 2, Objective 2.6 by establishing the Research Committee. We have talked about this, and we've actually made starts at it, but it just hasn't happened. And this is a very important part of the Task Force that we need to implement. We have a proposed timeline:

- Determine a chairperson by 1 August 2004
- Develop membership by 1st of September 2004
- Hold the first meeting by the 1st of October 2004
- Provide a first report back to the Task Force at our November meeting

This is a pretty aggressive schedule. And as many of you know, NOAA has agreed to be the chair and will still chair the Committee. They're looking for a person to do that, and I think we will probably hear something about that from Dean or Tim along the way. But it is very important that we establish this group and get it running. So that's what we would propose for that one.

Another things is to begin implementation of Goal 2, Objective 2.1 by establishing the Detection and Monitoring Committee. Again, the proposed timeline is to:

- Determine /select a chairperson by the 1st of July of 2004
- Develop membership by the 1st of August 2004
- Hold the first meeting by the 1st of September 2004
- Provide the first report back again to the ANSTF at the November meeting.

So, again, a pretty aggressive schedule, but one I think we can meet, given that we know that all of you will pitch in and help us.

One other one we would like to take on is to begin implementation of Goal 4, Objective 4.1 by designating a member of the ANS Task Force as a liaison to each of the committees. There are a number of committees and it's going to require some work from the committee members or their designee to make sure that you can report back to the ANSTF about what is going on with that committee, but we thought it was important to have a liaison to all of the committees from the Task Force. The proposed timeline for that is the 1st of October 2004.

Okay. This is when we get to the reporting requirement. We have in the end the strategic plan a requirement to write our yearly report, which I think is also in the legislation. That has, for whatever reason, never really happened. Part of the reason it hasn't happened was that the secretary was supposed to have received from all of you budget numbers, reports so that the Fish and Wildlife Service could put together for the Task Force approval an annual report. In order to implement that, we are asking that your Fiscal Year '04 budget numbers be made available to the secretary, and that's me until we select a new one, by 15th of July of this year. We would also ask that your Fiscal Year '05 budget numbers be available by the 30th of March in '05, again, for a similar purpose. We'll also be sending out a format as to how we would like those numbers put together to each of the Task Force members. We'll also be asking you probably to write a portion of that report that deals with what your agency is doing so that we can meld it together into a larger report for the Task Force. But it is critical, especially in these times of tough budgets, that we have those numbers to work with. If we don't have them when we go either as individual agencies or the Task Force before Congressional Committees and they ask you how much money do you have, what are you spending it on, we can't answer those questions. I can tell you that they don't only ask what about your federal budget is, they ask about what are all the other members doing and what are they spending money on, are you duplicating efforts, et cetera. If we don't have the data, we can't answer the questions either on an individual basis or for the Task Force. So this is a very important one and we will, if you approve of this, be getting a request out to you for budget and a format to put that in. It's not going to be real complicated. We're not going to ask you to report on every project that you get. We are going to try to generalize it into categories.

TASK FORCE CO-CHAIR KEENEY: Everett, back to what you said earlier, about membership for the two committees we're trying to form. You said we need a research and monitoring Committees?

TASK FORCE MEMBER WILSON: Yes.

TASK FORCE CO-CHAIR KEENEY: I'd like to ask that the members of the Task Force get back to you with their recommendations for membership on those two committees within the next two weeks.

TASK FORCE MEMBER WILSON: Thank you, Tim.

TASK FORCE CO-CHAIR KEENEY: Thank you.

TASK FORCE MEMBER WILSON: Okay. So get back to me in the next two weeks for membership of those committees.

TASK FORCE CO-CHAIR KEENEY: That's research and monitoring Committees.

TASK FORCE MEMBER WILSON: Yeah. Tim or Dean, I don't remember on the Monitoring Committee, who was going to be the lead?

MR. WILKINSON: Actually Pam Fuller from USGS was initially identified as the co-chair for that group.

TASK FORCE MEMBER GROSS: And Pam still is interested in doing that stuff. We actually did at one point get the names for people for the Research Committee. We sent a letter to Dorn Carlson at NOAA.

TASK FORCE CO-CHAIR KEENEY: Okay. Thank you.

TASK FORCE MEMBER WILSON: Well, yeah, we still would like to receive the names for membership. I'll collect those up and get them to the proper people. But if Pam is still interested, that'd be good.

TASK FORCE MEMBER GROSS: Yes.

TASK FORCE MEMBER WILSON: Okay. Implementation benefits: Working within the framework of the Strategic Plan gives us a frame of reference for working on ANS so that we can implement this plan. We can be proactive instead reactive to the snakeheads. Perhaps in the Potomac we can actually be proactive and perhaps prevent some of these things from happening if we could get these committees going, if we could become more active in asking for resources to actually accomplish some of these tasks.

Accountability: In these times of sort of tight budgets that that we be accountable for what we have, what we spend and what we do. And quality improvement. You know - can we improve the interactions that we have? Can we improve the actions that we take? Yes. If we work together, we can certainly be more effective and have better quality products.

Finally, if we stick together, we can conquer all kinds of new territory. You may recognize the individuals that are clustered there together, the infamous zebra mussel. They've captured a lot of territory. We'd like to recapture that territory from them by sticking together as an ANS Task Force and working together. As you see, Abraham Lincoln said, determine that thing that can and shall be done, and then we shall find the way. You know, we can all do it if we just determine what we need to do. We need to look at what steps we can take that will carry us into the future, and start right now to work on those steps to implement the plan and make it work for us. And that's the end of the presentation.

TASK FORCE CO-CHAIR KEENEY: Everett, I'd like to speak for a few minutes about the importance of performance measures and metrics.

Having personally put together NOAA's strategic plan a couple of years ago, I'm aware that probably the hardest part of strategic planning is to come up with good metrics which people are going to be held accountable to. And I use the word "good metrics" because they need to be metrics that cause you to reach out and require you to do more than you normally would do in a day's work type of thing. It's really sort of forcing you to accomplish whatever it is you're trying to get done on the plan. So I'd like to hear a little bit about how the metrics were put together and how we might even improve what we have. Because that's normally the weakest part of any strategic plan.

TASK FORCE MEMBER WILSON: I think what you're trying to address, Tim, is are the performance measures that you are not really in the plan at this time. And that's what we were talking about. We're trying to put performance measures in there. Some of the performance of may be those things that we put up on the board as to dates and those kinds of things to establish the committees. Once those things are in place, then we can work on what we expect from those committees and actually, you know ask people to produce, given that they have a timetable, etc. etc. You know I think those measures that you're talking about are not in the plan.

TASK FORCE CO-CHAIR KEENEY: Right.

TASK FORCE MEMBER WILSON: They are identified as things that need to be in the plan, but are not there now.

TASK FORCE CO-CHAIR KEENEY: You know, in my mind those are the most valuable parts of any strategic plan. Until you have them, you've got a big hole in your plan.

TASK FORCE MEMBER WILSON: Yeah, and that's what we're talking about. This is in the implementation strategy for the plan, and that implementation strategy will identify dates, times and products.

TASK FORCE CO-CHAIR KEENEY: Okay. Thank you. Any further discussion on that? Kathleen?

TASK FORCE MEMBER MOORE: Yeah. Regarding the activities with respect to collecting budget numbers, a number of the people in this room are already active in the NISC process of doing this cross-cut budget. And if it would be possible, it would be good to have the formats for those budget requests be both around the same time of year and around the same format to make it a little bit easier to match the two so that there's essentially no disagreement between the two sets of numbers. I say that because I'm now struggling with a situation late in the game that's causing some confusion.. The Coast Guard was essentially told to spend an X number of dollars in a certain activity. It wasn't a part of our first budget numbers and it just created all kinds of confusion. So if we could get the format of the numbers to be delivered to the executive secretary to be very similar to what the NISC numbers are going to be at around the same time of year, then the two are going to be very useful to both groups.

TASK FORCE MEMBER WALLACE: I would echo that. The aquatic nuisance species numbers are just a subset of what NISC is collecting. And the dates you had up there, Everett, I think can be moved up much more than that.

Once the President's budget is released in February of each year, those numbers should be available. So the 2005 numbers should be available now.

TASK FORCE MEMBER WILSON: Okay. I certainly don't have any problem at all in making sure that we're not requesting something different from this. And it should be at the same time. In the original plan there was some breakdowns, and I don't know whether we can fit those into what NISC is requiring or not. Dean, do you know?

MR. WILKINSON: I think and I would hope that we certainly can do it, and I would be willing, since I've been involved in both, to sit down and explain what NISC has done. Basically what they have done is something which is functionally based on the national management plan, so that there is an item called prevention, there is an item called control. And basically each of us, at least who are federal agencies in this room, are having to submit this already in that format to NISC. I see no reason why there should be any deviation. Some agencies may have more than one piece, for instance, I just mentioned to Kathy, you and Fish and Wildlife Service actually have two pieces that I'm aware of. And they may be getting reported to interior as a single piece; that is, terrestrial activities in the wildlife refuge system and aquatic. And you may have to back out those two. But I certainly see no reason why what NOAA submits, since we're all aquatic, would not be identical to what we're submitting for the NISC cross-cut budget.

TASK FORCE MEMBER WILSON: Yeah, I think other federal agencies will have the same problem. USGS and EPA and anybody that works both in water and in terrestrial will have some problem in separating those out. But, you know, it can be done and it certainly is helpful to have just the aquatic stuff for the Aquatic Nuisance Species Task Force.

TASK FORCE MEMBER COFRANCESCO: But if you still kept the categories, it's hard enough for us, especially on our operational budgets to tease out or to identify things that are going for something like the operations of a the lock, or how much is going to keeping invasive species out, cleaning it or whatever else. But if you start changing categories and start counting things by taxa, in other words, how much are you spending on zebra mussels, how much are you spending on that species, etc. that will change the whole format and drive us up a wall.

TASK FORCE MEMBER WILSON: We are not interested in driving anybody up a wall. What we need is just the data. And we were well aware that all those numbers are out there. We've been playing the crosscut game with NISC, too. So the only difference is going to be the aquatics, as opposed to the full terrestrial.

TASK FORCE CO-CHAIR KEENEY: There are no other questions? Kathy?

TASK FORCE MEMBER MOORE: I had one additional question that we started to talk about metrics, as far as plan implementation. There are a number of issues with bullet points within some of these objectives where it talks about determining how well something is working or what the impact of something is. For instance, in Objective 1.3 it talks about how well the public understands the impacts of ANS. That is a very difficult objective to accomplish without a metric. And I think that at some point, I don't know at what schedule, but I think that a review of the strategic plan needs to be done to find out if there's all kinds of speed bumps on how to describe or how to measure some of these very good objectives, very articulate objectives and important things that we've put in the plan. I think at some point we need to define some of these objectives as we move forward in implementing the plan. And perhaps we should think about scheduling how to define that. Maybe it's just one goal at another a meeting or something.

TASK FORCE MEMBER WILSON: That's a very good suggestion. I think that's exactly what Tim was trying to get to, too. You know, we need to define those metrics so that we know what we're doing and how we measure it.

TASK FORCE CO-CHAIR KEENEY: As Kathy just stated, though, I also think the plan itself needs to be reviewed periodically to make sure you're on target. Make sure you check with your constituency clients and make sure you've got in there what you need and you've got the right language. So I think the plan needs to be reviewed on an annual basis, as well as the performance measures. Not that you have to completely redo the plan, but just check through it and make sure it's still appropriate.

TASK FORCE CO-CHAIR PARKER: Whether or not it should be added.

TASK FORCE CO-CHAIR KEENEY: Yes.

TASK FORCE MEMBER WALLACE: Everett, you identified a couple of committees that would be created, and one of their main responsibilities would be to implement certain of the objectives up there. As they do that, and in advance of a complete kind of updated plan, those committees probably should take a look at those objectives and provide some feedback on, how current are those objectives, how feasible is it to implement those. And the committees you talked about would cover some of the objectives. We already have some committees in place that are dealing with other objectives. And I think that committee structure is an important part of the whole accountability thing that you mentioned. I'm pretty sure some of those committees have milestones already. But it would be good to get milestones to cover the other objectives that those other committees are dealing with. And the ones I'm thinking of specifically, though there may be others, are the Prevention Committee and the Outreach Committee, so that we are able to establish some sort of accountability for follow-up to all of the objectives in the plan and move forward with all of them, not just the ones you're proposing to work on first.

TASK FORCE MEMBER WILSON: Right. That's very good. And I think you are exactly correct. We ought to take advantage of those committees that we have that are working on the objectives in the plan and ask them what they're already doing and ask them to report the same as we would the Research, Prevention or Control Committees.

TASK FORCE MEMBER WALLACE: And I agree with Tim that at some point it would probably be good to take an overall look at the plan. I think the plan is pretty solid and certainly well intentioned, but it would be good just to follow up and see what needs to happen.

TASK FORCE MEMBER WILSON: Right. I think we would agree wholly on that. It's a great plan. It just needs to be implemented. And it is being implemented in parts, but we're not always aware of what those parts are. I also think that Kathy's idea of taking maybe some of the objectives that we don't have a committee covering or that have not been covered in some way and maybe taking one of those for each one of our meetings and, you know, going through them as a whole Task Force, too, might be a good way to do it. To develop some milestones and some things like that for those and select some people to do them.

TASK FORCE MEMBER ZAJICEK: Mr. Chairman, the regional panels are almost a shadow of the ANS Task Force and they all have similar functions. And it would seem to me that to develop some of your metrics, you want to recognize their achievements, I mean, in the method of public education. These different panels, one of their first activities is producing posters, brochures and putting on public events to get some accounting of that and recognize their progress. I sat in on the Research Committee for the Mississippi Regional Panel yesterday, and that was one of their main goals was to prioritize research needs so that there can be panel representations of the Research Committee where you can see what each regional area thinks is the most pressing and needed research and some of the work has been done by these panels.

TASK FORCE CO-CHAIR KEENEY: Yeah, thanks, Paul. That's an excellent idea. That is where much of our work is being accomplished and needs to be instrumentally part of our performance measures. Thank you.

TASK FORCE MEMBER WILSON: Other questions?

AUDIENCE PARTICIPANT: Yeah, Everett, under what agency is the NISC listed? I noticed that there are several different groups represented here.

TASK FORCE MEMBER WILSON: The NISC would be Dean, do you want to answer?

MR. WILKINSON: Okay. The National Invasive Species Council, for those of you who are not aware of it, is a similar interdepartmental group which deals with invasive species more generally. It has responsibility for terrestrial as well as aquatic organisms. It is co-chaired by Department of Agriculture, Department of Interior and Department of Commerce. The cross-cutting budget exercise actually was initiated by the Office of Management and Budget when Mitch Daniels was still the director. He sent a letter to each of the, at that time, ten federal departments and agencies who were part of the Invasive Species Council saying, "go ahead, do this cross-cutting

budget.” This will be a pilot for something we want to see more generally in the federal government. In Fiscal Year '04 we did a cross-cutting budget. Primarily the three co-chair departments - Agriculture, Commerce and Interior. We also have done stuff for Fiscal Year '05. I'll touch on this a little bit later, and I'll stop there if that's answered your question.

TASK FORCE MEMBER WILSON: Other questions from the audience or the Task Force? *[No response.]*

TASK FORCE MEMBER WILSON: I assume that, hearing no questions and if there are no objections, we can move forward.

TASK FORCE CO-CHAIR KEENEY: Everett, do you want to summarize the highlights of what we've done?

TASK FORCE MEMBER WALLACE: One more question or just a comment. I think it'd be also useful, connected to one of your last slides about the annual report, to develop an annual calendar for the Task Force's actions, as far as gathering information, making decisions and then reporting it out. And it relates back to what the Chair was talking about earlier and what we talked about in terms of, how often do federal agencies provide information, either in person or with the reports, and how is that connected to the Task Force's annual report. And it'd be nice to have, at least in my mind, an overall picture of the process. How it all fits together.

TASK FORCE CO-CHAIR KEENEY: It'd be helpful, yeah.

TASK FORCE CO-CHAIR KEENEY: Great idea.

TASK FORCE MEMBER WILSON: All right. No problem. We can put it together.

TASK FORCE CO-CHAIR KEENEY: Everett, could you just review some of the things that we've just agreed to do?

TASK FORCE MEMBER WILSON: Establish a Research Committee and get it up and running and report the 1st of November. Establish a Detection and Monitoring Committee, get it up and running and report.

TASK FORCE CO-CHAIR KEENEY: And we're going to have the members of those committees recommended by various committee members here within two weeks.

TASK FORCE MEMBER WILSON: Right. Within two weeks to me.

MS. THIBODEAUX: June 9th.

TASK FORCE MEMBER WILSON: It'd be June 9th - we'd like those by June 9th. Begin the process of gathering budget numbers for FY04 and FY05, and I agree that those numbers are probably available at least through the President's budget. We'll do that in the same format as NISC, but ask that you break it out by for the aquatics, since this ANSTF. Yes, go ahead.

MS. THIBODEAUX: I'd like to make one comment. I'm Pam Thibodeaux of Fish and Wildlife Service. I wonder if, in addition to reporting what we report to NISC in a very similar format, if the Task Force actually approves and produces some type of report, something that has come through and officially cleared, if we could also collect information on which agencies funded the project or report. Because we've been recently asked those kind of questions, and it's been difficult to try to pool the numbers together. So the Hill is sometimes interested in which agencies provided funding to produce a given report. And that would be really valuable for those things the Task Force decides to produce and does so in cooperation. You know, we may have two or three agencies providing funding to accomplish a given task. So it may be on a case-by-case basis, but I wanted to throw that out as something to consider.

TASK FORCE CO-CHAIR KEENEY: Yeah, and that's good information, and that's something else that they should be reporting as well.

MS. MOORE: I have another question. Who will be the contact person that the public can get ahold of to find out who are on these committees and where the meetings will be and when?

TASK FORCE MEMBER WILSON: The executive secretary would.

MS. THIBODEAUX: Also the Federal Register.

TASK FORCE MEMBER WILSON: Yes. Task Force meetings, panel meetings which are also actually committees, are all listed in the federal register. But the executive secretary will be the person who should be kept up to date.

TASK FORCE CO-CHAIR KEENEY: And also it should be part of our web page, which should be kept up to date.

AUDIENCE PARTICIPANT: What will that web page be? Can you give me an example of it, I mean, a location for it on the web.

TASK FORCE CO-CHAIR KEENEY: Right after the break we're going to get to that.

TASK FORCE MEMBER WILSON: Yeah, we're going to talk about outreach and the web page.

TASK FORCE CO-CHAIR KEENEY: Education and communication.

TASK FORCE MEMBER ZAJICEK: Mr. Chair, is the Task Force going to develop a charge for these committees or is it going to be primarily the objectives of the Strategic Plan?

TASK FORCE CO-CHAIR KEENEY: We will have a charge. Thank you. Joe?

MR. STARINCHAK: Yeah. As the Task Force moves towards closure of this discussion, I would encourage you to consider some type of action item in terms of getting the generic process around to the federal agency members allowing you guys to own the process, to tweak it accordingly where you see best fit and maybe convening some type of working group to assist the executive secretary to keep the momentum going for the implementation for the plan.

TASK FORCE MEMBER WILSON: I think the executive secretary has got a lot on his plate, even though he's acting. And I think what Joe is saying is that an executive secretary probably can't do this wholly without help from other people. So certainly we would welcome any help that we could get to do it.

TASK FORCE MEMBER COFRANCESCO: Just a point. You know, what you might want to do, since this budget thing is in the middle, you might want to go ahead and look at what the agencies have put together from the last two years or whatever else as something that you could have on your plate, et cetera, in the near term. It shouldn't be too hard to identify which aspects are terrestrial or aquatic and what we put together. It might be something that you should have for Congress and whatever else when you have a committee coming up.

TASK FORCE MEMBER WILSON: All right. We can get that request out fairly quickly.

TASK FORCE CO-CHAIR PARKER: You know, the other thing we heard was a lot of discussions about revising, reviewing the strategic plan to make sure it was appropriate in spots and looking at performance measures more closely using the committee structure to also take a look at the plan to see where it might need to be revised or reviewed and have some measures there, too.

TASK FORCE MEMBER WILSON: Dean, go ahead.

MR. WILKINSON: Okay. One comment in terms of membership on the committees, I would not want anybody who is a member of the Task Force to think that the membership on those committees will be limited to federal members. We have traditionally tried to be very broad based in terms of stakeholder involvement in Task Force Committees. So the request for potential members of committees is broader than just the federal members.

TASK FORCE MEMBER WILSON: Thank you, Dean. I'd like to paraphrase what Mamie was saying, too. I think if we gave a charge to those committees that are in existence and those committees yet to be formed, that would take care of what Mamie was talking about and would give them some structure to answer and would tell them what they needed to answer back to us. We can attempt to do that. That's an action item.

TASK FORCE CO-CHAIR KEENEY: All right. Any further discussion? *[No response.]*

TASK FORCE CO-CHAIR KEENEY: Okay. Then why don't we break until 9:45.

[A Recess Was Taken]

TASK FORCE CO-CHAIR KEENEY: Okay. We can reconvene our meeting. Now, with regards to the strategic plan, I had a little bit of discussion with a few members at the break. And I think it would be advantageous to get a small group together to review the plan between this meeting and the next meeting, and come back with some recommendations on how we might improve the plan. Because I think the plan needs to be really a living document that gets reviewed periodically and improved, rather than just a plan that sits on the shelf for four years and then gets rewritten in a four-year period. And also, of course, it makes the updating of the plan much easier to do it on a periodic basis. So with that, I'd like to ask Bill Wallace if he'd be willing to chair a small group to do just that. Would you do that, Bill?

TASK FORCE MEMBER WALLACE: I would be glad to.

TASK FORCE CO-CHAIR KEENEY: And do you want to ask for volunteers now or do you want to just do that at a later date?

TASK FORCE MEMBER WALLACE: Volunteers now would be great.

TASK FORCE MEMBER WALLACE: Sharon? *[Task Force Member Gross Nodded]*

TASK FORCE CO-CHAIR KEENEY: Sharon. Kathy?

TASK FORCE MEMBER WALLACE: Kathy, Dean and Paul. *[Each named member nodded in agreement]*

TASK FORCE CO-CHAIR KEENEY: Great. You've got a good group there. Okay. Thank you. And did you want to say something, too, Bill, about the National Invasive Species Council?

TASK FORCE MEMBER WALLACE: Well, it just occurred to me, and I didn't mention this before, but the national management plan for invasive species is going to be undergoing revision this fall. And I think it'll be important for us to make sure that we're not going off in different directions from the Management Plan. So we just need to be connected to that process. And there are people here who are connected to that process. And there are people here who are involved in both processes, so just something to keep in mind.

TASK FORCE CO-CHAIR KEENEY: Great. Okay. Thank you. All right. Richard Orr, chair of the new combined ANSTF / NISC Prevention Committee to give us an update on the first committee meeting, and let us know if there's any way that the Task Force might assist the Prevention Committee in doing its work. Richard?

REPORT FROM THE COMBINED ANSTF/NISC PREVENTION COMMITTEE – *Richard Orr, National Invasive Species Council*

TASK FORCE CO-CHAIR KEENEY: My name is Richard Orr. I'm with National Invasive Species Council. I have also been asked to chair the Prevention Committee and the associated working groups for the National Invasive Species Council and the Aquatic Nuisance Species Task Force. Well, what I have handed out, and it should be in front of all of the Task Force committee members, is from our first meeting, took place on May 4th. This was the

first Joint Prevention Committee meeting. Now, the Prevention Committee basically oversees five working groups, which is a combination of trying to meet the requirements of both the ANSTF strategic plan and the management plan of the National Invasive Species Council. If you remember from the last ANSTF meeting, what we were trying to do is take the 16 committees and working groups and to reduce it down to a number that was more manageable. And so this is the response to that. Now for the first meeting of the new Prevention Committee meeting, I'm going to first go through the notes to explain what is there, and then I'm going to open it up to the panel if they have any questions. The Prevention Committee and the working groups are very goal and product oriented. And that's mainly how we set it up with strict guidelines, with strict requirements on time, and also the roles and responsibilities have been fine tuned so we know exactly what we're going to do.

The first two pages on the handout that I gave are the minutes from the first meeting. Again, that was on May 4th in Washington, D.C. On page 3 is a list of the Joint Prevention Committee members and the various working groups as it now stands. You'll notice that from page 6 of the handout that six of the members of the Prevention Committee are here today. So if any of you have anything to add to this, please feel free to do so. You will notice that those are the members that are currently on these groups. And one of the main goals in the prevention group is to have each one of these working groups up and running within the next two months. Again, they are very strongly oriented towards getting things accomplished. On page 4 are the work assignments that came out of it for the various committee members. And also those people that showed up as guests were not immune, either. Most of them got signed also, so there's a danger in coming to any committees. The only real dangerous thing is not to come, because they get assigned the ones that get left over. As you can see, I even pulled in Sharon Gross as soon as I heard that she was available and now free for some real work.

On page 5 and 6 are the roles and responsibilities. One of the main goals in our Prevention Committee was to refine these to the point where we could agree that they were at this point final. As Everett Wilson mentioned, these are basically an operational plan and are always going need to be flexible, because invasive species is a very dynamic issue, especially when you're dealing with pathways. And so, we're always going to have to be flexible on this. But we needed to set down exactly what the roles are going to be. Many of the timelines that are important to know will be worked out within the working groups themselves. It is very difficult to try to determine a timeline for setting something like screening a propagative plant material, simply because of the complexities involved, and many things can move faster than other things. For example, regulations can be done faster often times than actual changes in authority, but what can be done even faster are codes of conduct or changes within best management practices which can be done very fast. So we need a better feel for the act before we can actually put timelines on finished products in many of these working groups, but they will be continuous.

And, finally, on the very last page I put in a sheet to show the overall structure. Again, well, I guess the point that I want to make is that all of these working groups will be up and running within the next two months. People have their assignments. I had to go through a little bit of beer in order to use that as incentive for these things. But all is fair in love and war. So if they don't meet the deadlines, they have to provide me with beer, too, so there is a good payback involved here, too. Anyway, I think we've made a good step forward. I have a lot of stuff that's already coming in. And hopefully I'll have a more formal presentation to give you the next time I'm here or at least have some of the working groups be able to provide input at the next ANSTF meeting. Are there any questions? Yes?

TASK FORCE MEMBER WILSON: Richard, one thing I noted, I immediately went to those roles and responsibilities and the thing I wrote was reporting back. That's the one thing that I didn't see.

MR. ORR: For the Prevention Committee, No. 3 is, "provides communication and decision making link between the prevention working groups and the ANSTF and the National Invasive Species Council". There is a requirement there. Also if you notice under each one of the working groups, at the last bullet of each one of the working groups, there will be a completion of an annually written summary report. Does that help?

TASK FORCE MEMBER WILSON: Yep, that's great.

MR. ORR: Again, how we came with these roles and responsibilities is we took a look at what the goals were for the National Invasive Species Management Plan and the strategic plan for the Aquatic Nuisance Species Task Force. We also looked at ITAP. So we tried to incorporate what everyone was trying to do in these particular groups and focus on five major areas and come up with some goal that we could work towards. Because, again, we were

stretched so thin that we just could not move forward towards implementation, and that's the purpose for this type of approach. And I would recommend that in the future for other issues that are shared among other groups that the Aquatic Nuisance Species Task Force seriously consider trying to bring in and incorporate the issues of other groups like the National Invasive Species Council and ITAP because you're pulling members very, very thin when trying to go to all of these committees and all trying to work on these various working groups. Any additional questions?

TASK FORCE MEMBER RILEY: Richard, two quick questions. First, how is business transacted among the work groups and the committee itself? Are those things done in the Washington area or will there be an opportunity for broader involvement beyond the beltway?

MR. ORR: Oh, absolutely. That is one of the things I forgot to cover. If you look at the committee and working groups, a lot of these people are not from the Washington, D.C. area. Also we have a very good input from business and industry, and also the trade representatives that are involved in this who are not federal. A good example is the Hawaii Island Screening Working Group. It would be ridiculous to try to work that group from within the beltway. So all of that is probably going to be taking place in Hawaii. So there isn't a set pattern for these particular locations on this. And I think we've got a fairly broad range of people from across the country, across academia and from the industry to try to get a very balanced approach. In fact, a lot of work went into trying to get a balanced approach in this. I was not interested in getting representatives, by the way, in each one of these groups. I could care less who the people represented. Because in many ways, once they come into the working group, they lose that identity. I'm not there for them to be representative of a specific thing, but try to come out with a product which their expertise would be helpful.

TASK FORCE MEMBER ZAJICEK: And if I might add to that, as a member of the committee, Richard really is going to the electronic route and very responsive. I think you held that May meeting within a couple of days. We had summaries back. It was really amazing. He really did an excellent job.

TASK FORCE MEMBER RIPLEY: Is the Ballast Water Working Group outside of this group or is it part of this group.

MR. ORR: We discussed that at the last ANSTF meeting about where to put the ballast water group. The reason that I really did not want ballast water under the prevention group is because it has reached a point where it is more focused upon the issues of research or more focused upon actual management. What might be considered fair game is things like fowling, which is in many ways as big a pathway as ballast water, but still has not progressed to the point where it needs to be placed mainly under a research or management venue or control venue. So that would still be open. But ballast water had gotten to the point where we would just be going around in circles, and that it was better to handle to it in either the research or the control management sections. Welcome, Marshall. You're responsible for writing the aquarium fish section of the screening group, okay?

MR. MEYERS: I'm sorry. I was over at the other meeting where they were discussing the same issue.

MR. ORR: Nobody shows up late. Thanks, Marshall. Any other questions?

TASK FORCE MEMBER ZAJICEK: I'd like to make a comment. Richard, yesterday or Monday during the Asian Carp Working Group they were talking about risk assessments. And in '96 the ANS Task Force put together a really nice generic process. And apparently it's only being implemented like part way through that process. And in talking to the staff that are dealing with it, they're only seeing part of the documents as produced and published by the Task Force. Maybe it's something we should look into - where there's not this coordination across the agencies for the Task Force process.

MR. ORR: Marshall?

MR. MEYERS: Paul and I discussed this ahead of time. One of the concerns we have is that one of the basic tenets of risk assessment is stakeholder involvement - open and transparent and not being done by the people who are also doing the regulations. I think we need to revisit the processes that are being done in certain agencies, because they are not open and transparent until they get published possibly in the Federal Register. In some cases we've received risk assessments saying we reviewed them, but we received them after they'd been published.

So I think that if we're going to do this properly, we've got to be open and transparent and have stakeholders involved from the get-go and follow some of the basic tenets that have been adopted by the National Academy of Sciences and some of the agencies.

MR. ORR: This is something that I think will be opening up for additional discussion underneath the prevention group, and possibly even under the Risk Management Working Group. It is important, too, that the role of the Risk Committee was to come up with a process. And it appears to me that the concern is not in the process itself that the but in the implementation of how that process is being worked. And it is also true that when we came up with that the risk assessment process, that it was not meant as a cookbook, not a step-by-step process which agencies had to follow, but it was a guideline for them. And there is no doubt that there are critical elements within the process that need to be met.

The question I would give back to you is, what is our role as a Prevention Committee, as the Risk Analysis Committee and, after we finish the product, of enforcing it or correcting the problem when it is used in a way in which we feel it is not meeting the letter of the ANSTF risk assessment process. And I don't know the answer to that. That might actually fall back on the committee itself and the main Task Force. But I have heard this from a number of people, and it is something that I think that if we can get it articulated will be something that we'll present or something we can start working on in the Prevention Committee.

TASK FORCE CO-CHAIR KEENEY: Everett, do you have something to add to this?

TASK FORCE MEMBER WILSON: Yeah, I think what we would like to say from the Fish and Wildlife standpoint, the risk assessment process is an ANSTF process, and that should be followed to the letter of the law, or the letter of the agreement. And to our knowledge, it is. Now, we go through a different process, which is the listing of a species under the Lacey Act and that is a Fish and Wildlife Service responsibility. It is not an ANSTF responsibility. And you have to separate those really, because they're not the same process. We use the risk assessments that are developed in the decisions that we make. But the decisions we make also include other information that is not part of the risk assessment. And I think there is some confusion in thinking that the risk assessments are the only vehicle for the listing, and that's not true. You have to separate those two out. The ANSTF process is the risk assessment process which feeds data into the listing process. The listing process is a responsibility, at this time under the Lacey Act, of the Fish and Wildlife Service.

TASK FORCE MEMBER ZAJICEK: Well, I guess the point is that the generic process is identified as being what's being followed and isn't. You can use what data you feel is important and valuable out of that. But it's not being followed through. It's essentially several components to it, and we've used it as an agency in Florida, for example. And you can do the risk assessment to get the certain kind of information out of that, and then you challenge those same people to say, how do you mitigate those risks?

And that really is where a lot of effort goes in. And that is extremely valuable information in talking about national management plans or activities within an agency that they can take and make a difference in the field. You're losing that second component of the risk assessment as developed by the Task Force. And I really encourage you to revisit that and say, you know, let's follow through with this all the way through. It's disappointing at least to this association that and the coordination role of this Task Force is being cherry picked. What we want to do to is get a certain thing out of it, but we're not going to go the whole nine yards, which was a joint effort of either members of the Task Force and outside members people from the industry to put that together to try to make this as strong and as effective as possible.

TASK FORCE MEMBER WILSON: Well, Paul, we would be glad to sit down and talk with you and/or other people individually or as a group to get specific about where you think this has gone wrong and to try to make any corrections that we can. I just wanted to make sure that everybody understood that there is a great difference between the risk assessment and the listing process that the service goes through for the Lacey Act. But we'll with this other thing, the other part of that - there's no problem there. We can deal with that and get it back on track if it is off track. But we need to sit down, I think, individually and talk about that and make sure that we understand exactly what you're saying and how that impacts what happens with risk assessments.

TASK FORCE CO-CHAIR PARKER: It sounds like there were two areas of concern: the stakeholder's involvement and open and transparent review and coordination are two of the bigger issues that are related to the Task Force.

TASK FORCE MEMBER ZAJICEK: Well, when you bring industry people into this or anybody party that's familiar with these species other than agencies, it's amazing the amount of information and expertise you can pull out of the woodwork to benefit you in your efforts and also to show an industry where they may be wrong. It's a two-way street here, and really helps out a lot. We've done it. It works. It's disappointing to see the risk assessment now just fall into an agency purview where there isn't that input from effected industries or state agencies or whoever, the academic community, however you want to phrase it.

MR. ORR: May I point out that if the Task Force deems this issue to be important enough for the Prevention Committee to look at it, then and articulate it to the point where we truly understand where the concerns are then I'm sure that the Prevention Committee would be willing to take a look at it. But that would have to fall back on the Task Force to say, yes, go ahead and take a look at it, because we already have a very full plate.

TASK FORCE CO-CHAIR KEENEY: I was just going to say, there also may be some limitations here in the regulatory process with regards to contacts with interests outside of the regulatory arena with regards to ex-parte discussions. That's just another thing we need to be concerned about, but certainly aware of.

TASK FORCE MEMBER ZAJICEK: Well, I guess I would look at part of the process as being to open up the rules and regs to public comment.

TASK FORCE CO-CHAIR KEENEY: I agree.

TASK FORCE MEMBER ZAJICEK: This is part of the process of analyzing very complex situations to give you the best information to make good decisions.

TASK FORCE CO-CHAIR KEENEY: I appreciate it.

TASK FORCE MEMBER ZAJICEK: The process is a good one. It's an important one, but it's being truncated.

TASK FORCE MEMBER WILSON: The Service, certainly, and the Task Force would have no problem, Richard, with you guys taking that on. And that might be a better way to do it than to deal with it on an individual basis. You know, one thing I was going to comment on as Richard was making his presentation, is that the Task Force is, in fact, a committee, which means essentially that private citizens, private groups, states, federal agencies meet together to make decisions. And the reason it is a chartered group is so that these things can happen, and so that we can have the best information available to us.

MR. ORR: I would submit to the Task Force that we would be willing to take this on, but I still need it put down on paper as to exactly what the issues are so that we address the real issues. So if you could do that and you get it to me, then we'll definitely put it on the agenda for the next meeting, which is September 1st or if it's important enough to address before then, we will go ahead and do so.

TASK FORCE CO-CHAIR KEENEY: So make another that another action item for the Task Force.

TASK FORCE CO-CHAIR PARKER: Uh-huh.

MR. ORR: But it's very hard for us to address nebulous issues, so it's important to get it down on paper exactly. And Paul, you would probably help with that, I assume.

TASK FORCE MEMBER ZAJICEK: Great.

TASK FORCE CO-CHAIR KEENEY: Great.

MR. ORR: Anything else?

TASK FORCE CO-CHAIR KEENEY: Good discussion. Thank you.

MR. ORR: Thank you.

TASK FORCE CO-CHAIR KEENEY: Thank you very much. Our next report is going to come from the Communications, Education and Outreach Committee. Joe Starinchak, the ANS Task Force coordinator and chair of the Community, Education and Outreach Committee, will give us an update on what's been happening in education and outreach, and let us know if there's any way that the Task Force can assist the CEO Committee in doing its work. We'll also hear about the IAFWA project. That's the International Association of Fish and Wildlife Agencies, and the Pilot State Process. And Joe will introduce those speakers as well.

UPDATE FROM THE COMMUNICATION, EDUCATION, AND OUTREACH COMMITTEE – *Joe Starinchak, U.S. Fish and Wildlife Service*

MR. STARINCHAK: Thank you. First of all, before I begin my presentation, I want to bring to light a couple things. I just uploaded two articles to the Protect Your Waters web site this morning. One talked about a massive carp kill in South Carolina, and the other one talked about how the snakehead hysteria is hitting a new level with a man in the Chesapeake Bay claiming to be bitten by a snakehead. So I thought those were quite interesting.

I'm going to give you updates about what's going on with the Communication, Education and Outreach Committee. We're fortunate that we have two of the four pilot states who are part of the IAFWA project here. So I'm going to introduce those gentlemen, as Chairman Keeney said. They're going to give you their perspectives on their involvement with this project.

Then we're also going to talk about the ANS Task Force website as well. So I just wanted to let you know how the presentation is going to play out. Basically I want to give you an update about these five items: the Stop Aquatic Hitchhikers Campaign, the economic impact report, the IAFWA project, the aquarium lobbyist campaign and we are also going to be looking hard at the Communication, Education and Outreach Committee, which has been in existence for the better part of two-and-a-half years now. We need to revisit our processes, how we do our business to take full the advantage of the expertise on the committee. I'm going to provide some action steps for the Task Force members to fully engage in and support these outreach efforts, and to initiate discussion about the Task Force website.

We're making some pretty good headway with the Stop Aquatic Hitchhikers Campaign. I was looking back at the November minutes, and at that time I think I reported that we're getting about 15,000 hits a month. We're up to 81,000 hits a month on this website, and it's increasing. We've currently got 98 partner organizations. And, in fact, what I'm passing out here is a brochure. And it's just a generic brochure that we have as part of the campaign that any partner or organizations can take, adjust or alter. But if you look on the back of the brochure you will see the partner organizations. And they range from the City of Davis in California to Federal agencies, National Park Service, NOAA, Fish and Wildlife Service. We've got businesses, we've got universities, we've got state agencies. So, again, we're making good headway with this campaign and we're pretty excited about that. We've got our e-mail news update service, and we're communicating with over 1,500 people a day, sometimes twice a day. I've received some good feedback about how we communicate. And we'll be making some adjustments to make those stories and the articles that we post on the website more readily available to people. Because they are of interest to people and they are driving people to the website. So, again, I appreciate the support we've gotten thus far from the Task Force, and continue to move ahead and provide the Conservation Committee with a vehicle to communicate about his issue.

TASK FORCE CO-CHAIR KEENEY: Joe, I'd like to add a comment here, if I could.

MR. STARINCHAK: Please.

TASK FORCE CO-CHAIR KEENEY: I'm a really big supporter of communication, education and outreach. But with regard to Stop Aquatic Hitchhikers, I'm somewhat of a klutz on the computer, but I'm probably better than the average person. And I have trouble - I see the articles and I want to read them, but I have trouble getting to them. And I don't have time, so I just never get to them, because they're too difficult to reach from your announcement of what's going on. So somehow we've got to make them more user friendly or give me some personal instruction. Either one would work. Because I really do want to read these articles, and I just don't have a whole lot of time to figure things out.

MR. STARINCHAK: That is actual feedback that we've heard about before. And we will work to structure that to make it more user friendly as well.

TASK FORCE CO-CHAIR KEENEY: Make sure you let me know.

MR. STARINCHAK: Absolutely.

TASK FORCE CO-CHAIR KEENEY: Thank you.

MR. STARINCHAK: So, again, we're continuing to move ahead. We're also on the verge of trying to get two major retail partners on board with the campaign, as well as our first international partner. For the Fish and Wildlife Service economic impact report, we're at the final stages of reviewing this. And basically it focuses on several different themes. It's an educational tool that will help to build support for addressing this issue and to engage decision-makers with respect to our funding needs. And once we get this finalized, all Task Force members will get a copy of it, and we'll make it available as a tool for everybody.

TASK FORCE MEMBER KATZ: Joe?

MR. STARINCHAK: Yes?

TASK FORCE MEMBER KATZ: Could you tell us a little bit more about this economic report? Who has worked on developing it? I'm just curious.

MR. STARINCHAK: Absolutely. We hired a contractor to do this report. There's not a lot of good information out there about economic impacts. So this contractor went over government trait statistics and other economic data, and we had to cross reference what we could with potential impacts. So we've translated it into a way that's like economic sound bytes. So if there's an established population of an invasive species in a certain state, that certainly presents a lot of different ramifications for economic sectors who depend upon aquatic resources. And we talk about the economic impacts that those economic sectors generate and how that species population presents a viable threat to that economic sector.

MS. MOORE: How can you get a copy of this report?

MR. STARINCHAK: As soon as we're done with it, it will be made available through our partner organizations.

TASK FORCE MEMBER KATZ: And when do you expect it to be available?

MR. STARINCHAK: That's a good question. Sometime this summer. Yes?

TASK FORCE CO-CHAIR PARKER: Joe, I'd like to see us consider doing a one-page or a summary that will talk about those sound bytes and make it easier for us to use it. So if you could provide that to the Task Force when it's ready to be released, it would be very easy to do so. And then, secondly, perhaps we could talk individually about how we can give the Task Force the credit and some attention for putting out this report. Because I'd like to see the Task Force become a lot more visible and this is one example. I know the circumstances of doing it, but we could still use the Task Force as a mechanism for getting this out.

MR. STARINCHAK: Absolutely. That's a good point.

TASK FORCE CO-CHAIR KEENEY: Paul?

TASK FORCE MEMBER ZAJICEK: I was wondering, this is a complicated subject because species in one part of the country may have a tremendous negative impact and in another part of the country it's considered a very positive economic species. How are you kind of reconciling that?

MR. STARINCHAK: There's a fine line for aquatics.

TASK FORCE MEMBER ZAJICEK: Are you reporting positive economic values, too, or is it all negative?

MR. STARINCHAK: We're basically highlighting potential threats. And again, there's not a lot of good data out there. And one of the things you've got to keep in mind is it's easy to do an economic analysis. It's more difficult to translate that into something people can understand. And that's what we're trying to do with this document.

TASK FORCE MEMBER ZAJICEK: Well, I know the negative economic impacts are hard to find. But usually when there's business ongoing, that kind of data is available.

MR. STARINCHAK: Right. And that's a good point. And it's primarily focused on recreation, so keep in mind it is in line with the Stop Aquatic Hitchhikers Campaign.

MS. MOORE: But what's the name of the contractor, if I might ask?

MR. STARINCHAK: Southwick and Associates.

MS. MOORE: Where are they located?

MR. STARINCHAK: Florida.

TASK FORCE MEMBER KATZ: Joe, will the report make clear that the focus is on primarily on recreation ?

MR. STARINCHAK: There's an explanatory page on the report. It talks about the limitations of the report. This is not comprehensive, it's a very focused effort and it talks about how the trade statistics and economic data were used in conjunction with known economic output from various recreation-related sectors.

MS. MOORE: If it is not complete, will it still be used as evidence in listing a species on this list? That's what I worry about as an industry representative. If you don't show the positive economic impact and only the negative impact, that will directly affect how a species is listed, and it will directly affect several aquatic industries. So that's why I would like to make sure that there is positive material put into this report to make sure that it is as complete as possible.

MR. STARINCHAK: And that's a valid point, and we appreciate that. But, again, it's a targeted educational tool.

MS. MOORE: But will it be used as a targeted educational tool or as an end-all and be-all as a reference?

MR. STARINCHAK: We will present it as a targeted educational tool. How people use it beyond that is out of our control.

TASK FORCE CO-CHAIR KEENEY: Could you please introduce yourself for the record.

MS. MOORE: My name is Paula Moore. I am a fish farmer, and I'm also a member of the Missouri Aquaculture Association.

TASK FORCE CO-CHAIR KEENEY: Okay. Thank you very much. That's helpful. As Paula was saying and also Paul over here, I think that because this is an educational document we're talking about, I think it's important to at least acknowledge that not everything is negative on the economic issues. Because, as you know, people are constantly asking for hard data on economic impacts for invasive species. And I think it is important to get the full

picture that in some cases there are positive economic impacts, and it may be very much a regional issue as to whether or not species is invasive and how that sort of plays into the whole problem of introduction of the basis, because it is positive in certain areas and not in others. So I think that's something that needs to be an integral part of any economic analysis report. And being an economist myself, I can appreciate that. Thank you.

TASK FORCE MEMBER KATZ: I know that the intention of the report is a targeted educational outreach tool, but is the work of the contractor going to in any way be peer reviewed by other economists? In other words, could the report be challenged even as limited in its focus as it is? Could economists challenge the educational sound bytes that it includes? It's a concern I have.

MR. STARINCHAK: I don't see how you can challenge educational sound bytes if they're inferential.

TASK FORCE MEMBER KATZ: Okay.

MS. MOORE: Well, "sound bytes" leaves a bad taste. It means you're not getting the whole picture.

MR. STARINCHAK: When put in put in the proper context, they can be a very valuable tool. People tend to take things out of context and use them for their own benefits. Keep in mind we have no control over that.

TASK FORCE MEMBER KATZ: Well, I'm just wondering if there's a way in which maybe Task Force members could be given some opportunity to review the draft.

MR. STARINCHAK: Well, this is being funded by the Fish and Wildlife groups and we have an internal review process in place.

TASK FORCE MEMBER KATZ: Right. But the committee represents the Task Force.

MR. STARINCHAK: And I did not say this was a committee report.

TASK FORCE MEMBER KATZ: All right. This is Fish and Wildlife. Okay, sorry. But this is a ...

TASK FORCE MEMBER WILSON: If I could break in here, we could have it reviewed in-house by economists. That can happen. That's no problem with that.

MR. STARINCHAK: Larry?

TASK FORCE MEMBER RILEY: If I could just offer an observation. One of the most controversial and maybe one of the most difficult challenges for this Task Force or for the National Invasive Species Council or for any groups addressing this issue is what constitutes an invasive species or a species that displays invasive behaviors. And unfortunately one of the challenges in all of this is really the fact that we've taken some biological process terms and are in the process of turning them into policy terms. That's not good, bad or indifferent. It's simply the way this issue is progressing. And in many instances I think a lot of what we need to deal with as a Task Force really is focused at a very broad scale across the national landscape. Regional panels will address those issues at a regional scale. States working with federal partners and stakeholders have to address those issues at even smaller landscape scales. But this issue of whether or not a species is a nuisance or invasive, whether or not it's beneficial and trying to equate the terms non-indigenous, non-native with invasive or nuisance is a very, very controversial issue, and one that maybe we shouldn't wrap ourselves around the axle for today. But I think it is a lesson well taken that those decisions will have to be made. But in many instances they may be made at a local level. In other instances we need to address those issues for future importations, whether they be intentional or unintentional at a much broader scale for the United States. And we can spend a lot of time worrying about that, though, ultimately we will have to deal with it in a fairly specific way.

MR. STARINCHAK: And that is included in the report. We talk about the definitional aspects to a limited degree and provide some disclaimer about that. Any other questions or comments? *[No response.]*

MR. STARINCHAK: Okay, the International project has two components and it leverages \$400,000 over the course of three years. Basically the first component deals with pilot state communication programs. And the international has four regional associations that are affiliated with it. To give ownership to those regional associations, we structured the project to work in the context of four pilot states. As I said, we're fortunate to have two of the pilot states represented here today, Missouri and Arizona. We designed the process such that we help the states identify their aquatic invasive species of concern. And then we help them shift from a biological mindset to a marketing mindset identifying the audiences associated with those species of concern. And then from there we've built strategic communications plans. We offered the Stop Aquatic Hitchhikers as an alternative. Fortunately all of the states have embraced the campaign as a vehicle. The second part of the project is the regional coordination workshops. And again, a lot of what drove this project was the joint survey that the Fish and Wildlife Service did with the international association. And the primary goal of these workshops is to build upon and enhance any federal or state responsibilities to create a tighter coordination network. And at this point I'm going to introduce Larry Riley. Larry will come up and talk about his experience and involvement with the Arizona pilot state project and give you some insights as to what they've gone through.

TASK FORCE MEMBER RILEY: Joe, I'll speak from here if that's all right

MR. STARINCHAK: Okay.

TASK FORCE MEMBER RILEY: Joe has done an excellent job in setting the stage, and actually minimizes my need to take up your time. I did want to make a couple of observations about the project with the International Association of Fish and Wildlife Agencies. This was identified as a national conservation need through the Fisheries and Water Resources Policy Committee with the IAFWA. The IAFWA represents all of the 50 states wildlife agencies, but also involves participation from Canada and Mexico as well. So it is a North American organization as much as it is a United States organization. Certainly the two components of the IAFWA project are very important to us. One, facilitating the development of communication strategies at state and regional levels to get this issue in front of the public at a finer scale, I think, than we do this currently at a national level. The second part of the coordination gatherings that will be facilitated through regional fish and wildlife agency organizations is pretty important because it helps the states, in particular, coordinate on issues of regulation and enforcement issues that do have to be coordinated across state boundaries. And in many instances states are not necessarily aligned in terms of their approaches to aquatic nuisance species or invasive species. Though honestly the regional panels provide a great facility for coordinating those issues currently.

But my hope for the western association of fish and wildlife agencies workshop is that it will give us a great opportunity to draw in law enforcement and the processes of developing state regulations, and help to coordinate those and create a network for coordination. In Arizona we have, as a pilot state, undertaken the development of communication strategy that hopefully will be translatable for many other western states. There are four pilot states representing four different regions of the United States. In Arizona our focus is really on raising awareness. And, Paula, to address one of the issues that I think you raised, we hope not to alarm people, but to inform people, and to help them be able to make decisions for themselves. We hope to focus more on behaviors than raising fear among the public, and tell folks what they can do to help address this issue. And in that regard, we really focus on a few target audiences. In particular, for us at first, we will focus on boaters and anglers, trying to touch our own audiences. And in the west dealing specifically with irrigated agriculture. We also want to focus heavily upon the stakeholders that are water users, because they, too, need to be partners in addressing this issue. They have much to lose with regard to unwanted nuisance species.

And we really hope to be able to enlist their aid in carrying this message, and enlist their aid in terms of identifying behaviors that they can employ to help address the issues themselves. One of the great things, I think, about the way this communication strategy is being developed is it not only focuses on audiences and the media, but also focuses on measures, how will we will able to tell if we're making a difference. And it focuses and forces us to evaluate against those measures if we are indeed effective. So for those things I think they're very useful in Arizona. We're still fairly early in the process, but hope to have our communication strategy finalized by this summer and employed later in the summer and then be able to evaluate over the course of the next two years. Yes, ma'am?

MS. MOORE: I would also like to see a distinction made between some of the species that have been brought in accidentally and have become nuisances, and those that have been brought in with the agreement of the fish and

wildlife services for use in agriculture and have become feral. There are feral cats, dogs, goats, horses, rabbits in Australia. Some of these species are merely agricultural products that have escaped into the wild and become a nuisance. Some of them are wild species that have been brought in and become nuisances. The aquaculture industry would like there to be a distinction between feral agricultural products or animals and actual invasive species, if that can be done, or if that can be utilized in educating people.

TASK FORCE MEMBER RILEY: I think you raise some very interesting issues. Some of those actually bear down on policy, rather than the communication aspect itself here as well. But those are difficult issues. In Arizona we have many, many introduced species, you know, many of which have been beneficial, some of which have not. Some that are beneficial in one location, but may be a nuisance in another location, and all of those things are difficult to wrestle with. Our emphasis is not to paint stakeholders or industry or government in any specific light, but to address the issue, to raise awareness and to help inform folks in terms of their decision making, whether it happens to be at the industry level, whether it happens to be at government level or at a personal level. Okay, any other questions?

MR. STARINCHAK: Questions for Larry? *[No response.]*

MR. STARINCHAK: Okay. Thanks, Larry. Now, I'd like to invite Ron Dent from the Missouri Department of Conservation to share his experience representing his pilot state.

MR. DENT: Thank you, Joe. I'm really pleased to be able to be here today and share a few experiences from Missouri from our pilot project. And right along with Larry in terms of what he's been talking about with Arizona, we also wanted to raise awareness with a number of different stakeholder groups in writing this marketing strategy. And we view the marketing strategy as one chapter, so to speak, in our broader ANS action plan for Missouri where a big part of that naturally is going to be outreach and so we're being able to finish that project up by going ahead with the marketing strategies. We started our process in November via a meeting. We brought in a number of our folks from across the agency from a wide variety of divisions, which was good to get their perspective, whether it be our wildlife folks working in wetland areas or our fishery managers around the state to get a good broad spectrum of just what the issues were out there. And so what we've got now is kind of our third draft of a marketing strategy plan that addresses a number of different issues. One is the bait industry, particularly in terms of crayfish, basically not to dump bait in waters after people are done using the bait, but to make sure that they dispose of them properly instead of dumping them into the stream or the lake where they might cause problems.

Asian carp was another factor that we looked at, and basically zebra mussels and then a variety of plant species, such as reed canary grass. And so after looking at those, we also wanted then to evaluate two marketing strategies within that comprehensive list. One is the Lewis and Clark initiative that's going on. We've got a number of events up and down the river and it will continue on in July as the Lewis and Clark events roll into the communities with the keel boats and the prows and people talk about the encampments. We thought this would be a good opportunity to talk about aquatic nuisance species, because we envision a number of folks coming to the state that will be participating with this historical event and bringing their boats in perhaps wanting to put it on the Missouri River where we do have zebra mussels, in particular, that have been found. And what we're worried about is that with that movement of folks up the river that basically they might take that boat out and take them to other adjoining waters, like some of our reservoirs, particularly in Missouri. And so we wanted to capture with that audience, first of all, that we do have zebra mussels in the Missouri River system and what they can do to prevent those.

So we've got a display. We also have a grant with AmeriCorp that are working on the Lewis and Clark events. There's a lot of setup of the camp and getting things ready and they actually greet people at the boat ramps. They've got a display about ANS talking about zebra mussels and about other aquatic plants they can bring in. So we're able to do that outreach effort. We're not actually evaluating so much that effort as we are a secondary effort where we're also going to be using AmeriCorp. After the events are over with this fall, we're actually going to use AmeriCorp volunteers. As they talk about Lewis and Clark, they're also going to talk about ANS to communities. And so they'll be talking to school groups, community leaders in terms of what they can do to protect their community to get involved to become stakeholders in this process. And that we are evaluating in terms of a pre-survey with folks and what they know about ANS in Missouri and then afterwards a post-survey.

The other aspect that we're working with is on bait dealers. And here we have about 300 or so bait dealers across the State of Missouri. And we're doing two efforts here; one being a mail survey where we're sending out packages of materials about ANS, and particularly about dumping bait into the waters of the state and the problems that could cause. And then we're also doing a one-on-one where we have our Conservation Department employees that will be contacting bait shops and talking to them about ANS and what they may do. And so really the evaluation measures here is the difference between a one-on-one contact versus just something mailed to an individual, in terms of response rate and in terms of them grasping a whole, and becoming a stakeholder within this process. So basically those are two of the evaluation aspects that we've been working on.

What this means to us is that it allowed us to focus our efforts and to re-evaluate where we were with ANS - looking at the marketing information that we already had. We do have information up on our web page. We do have some brochures and displays. But basically what this allows us to do is to energize and evaluate what we have done and what we need to do as an agency.

It also provides the ability to take that and step it down. This morning's session we talked a lot about what's going on in the national effort. Then, with Missouri being part of the Midwest, we talked about what we can do regionally with ANS and with our sister states in the Midwest and some of the issues that we all face, and then stepping that down one more time within the state and the local communities, which is really where the action is and getting that information across. And I think that's a really important aspect of just realizing that step-down nature of what this has allowed our state to do. And we're really able to work on a lot of different new materials. We've been working with Case and Associates about putting together a new page on the ANS that's going tie back to the Protect Your Waters web site. So we're really excited about that, as well as developing some posters that we're going to be putting up at bait shops and the logos about don't dump your bait. So it involves all of us. It gives us a shared responsibility across our state and gives the opportunity here today to share that responsibility with the ANS Task Force.

In summary, what I'd like to provide is a thank you to the IAFWA for the grant and being the opportunity to be a stakeholder state and for the great efforts of Joe Starinchak. As far as a person that if you need something, he's Johnny on the spot in terms of being able to write a presentation, a poster or information - just an incredible, valuable resource for our information. And to Case and Associates and Rob Southwick and Southwick and Associates who have really helped with the marketing strategies and Gwen Waite and Sharon Rushton. So it's really been a unique effort, and I really appreciate being a part of that. Any questions? *[No response.]*

MR. DENT: Thank you.

MR. STARINCHAK: Thanks, Ron. Moving on to some of the other exciting activities that we've got going on with communications, education or outreach is the aquarium hobbies campaign. This has been a slow process. We've had some stumbles, but we're addressing that. Basically we're using the same type of model as the Stop Aquatic Hitchhikers campaign. It's going to be a national campaign. It's going to take advantage of relationships in the industry supply chains various sea grants, the Fish and Wildlife Service and top fish and wildlife agencies to help spread the word to a targeted audience about the need to prevent the spread of unwanted aquarium species into our waters. We'll step down the campaign to two levels, Minnesota and Ohio, to measure the effectiveness and to raise their awareness about the issue of unwanted aquarium species. So, like I said, we've had some challenges with this, but we're addressing them. We're moving ahead. And we hope to have an industry unveiling sometime in September tentatively with the public unveiling sometime in November. And that's where we stand with this. So any questions with respect to this effort?

TASK FORCE CO-CHAIR KEENEY: Could you just describe what the industry unveiling is going to look like?

MR. STARINCHAK: Well, we've talked about it. It's going to be at an industry trade show where we're going to show what is available for the industry and using the various retail outlets to help us spread the word. We're going to be using various manufacturers. Marshall, step in any time.

MR. MEYERS: Okay. First of all, while the pilot states were for the purposes of measuring the campaign in Minnesota and Ohio, the industry is doing a nationwide campaign. Because the PetSmarts and Wal-Marts in this world cannot target things to just go into two states. There are many elements to it. Over 20 million fish bags will

have the brand and logo on it with the message “don't release unwanted plants and fish and amphibians. That will be tied to other types of media going out through trade magazines, consumer magazines. One of our member organizations mails to 23 million pet-owning households every month. They will be included in those materials. They also have a 10 million member Pet Pal's club - those of you who shop at that store know what I'm talking about. So we have a lot of different mediums for getting the message out. It'll be on display. Manufacturers will have them on new aquariums that people buy it and take it home. It'll have that educational element.

We also want to partner with local groups throughout the country to make presentations at aquarium society meetings and things like this about how to be responsible aquarists. One thing sea grant asked us to add to the program is to develop materials on outdoor water gardening and ponds, because that's probably the fastest growing area of the aquarium industry. And a lot of that is not pet industry. That's horticulture. And so we are working with the American Landscape Association to become a partner so we could get the whole horticulture industry involved. In a nutshell, that's the outreach program. But it will be unveiled at a September trade show, which really concentrates on the western states, but the industry will be rolling it out nationwide. Oh, as an aside, Canada, Mexico and New Zealand want to take the same materials and use them.

TASK FORCE CO-CHAIR KEENEY: Thank you very much. If you could, again, announce who you are for purposes of the record.

MR. MEYERS: Oh, Marshall Myers, Pet Industry Joint Advisory Council.

TASK FORCE CO-CHAIR KEENEY: Thank you very much. You've made some great contributions here, and I really appreciate your report. Thank you.

TASK FORCE MEMBER ZANETELL: Is there any aspect of this campaign that's focusing on the internet aspect? It seems like quite a bit of it, or maybe not quite a bit of it, but at least some of the legal trade is going on via the internet.

MR. MEYERS: The internet, I think, is a problem for the entire invasive species. Moreover, it's a problem for commercial activities that are even legitimate, because it's becoming an interesting way of communicating. The problem is a lot of legal implications and constitutional issues that I'm trying to ban stuff on the internet. We are encouraging everybody in the industry that has a website to put warnings about exercising due diligence, being aware of what is going on, what's legal in your state and what isn't. Some of you may have seen a report that was done out of Minnesota where they imported into Minnesota I think, what, 98 percent of the plants they bought over the internet were illegal in Minnesota. So I think as a community, we all have to address the issue. We can't just do it by putting warnings up on the website, but there's no simple solution.

TASK FORCE MEMBER WALLACE: Along those lines, not to get too far off the topic here, but people at our center for plant, health, science and technology in Raleigh are working with North Carolina State and a contractor that has a webcrawler. And they have a project now called the Internet Surveillance Program. And it's directed at plants that are federally listed, but it really has application for other agencies. And at a recent briefing we suggested that they talk to the Fish and Wildlife Service about concerns that you might have in terms of violations of your regulations.

MR. STARINCHAK: It's amazing what Homeland Security can do. We'd like to have that discussion. Absolutely. Any other comments, questions?

TASK FORCE MEMBER ZAJICEK: I was looking to go to your Chicago workshop. And as you all know, retailers just want to drain their wallet. I mean, look at they do to get us to spend our money. For them to embrace this message that says “your product could be a problem under certain circumstances” is phenomenal. So it's really unbelievable. You're really giving a great message.

MR. STARINCHAK: Yeah, I anticipate this to be much bigger than the Stop Aquatic Hitchhikers campaign. Yes, Larry?

TASK FORCE MEMBER RILEY: Just an observation, and if I could and maybe thank Marshall for what he's done. I really do appreciate involving the outdoor water features, the water gardens. It really is a tricky issue. I know it's very difficult from lots of different perspectives, but one of the things that we're pretty good about as government is telling people what they can't do, what they can't have, and I think one of our responsibilities is also to help them identify alternatives. Here are things that work well within in this part of the country or here are are reasonable alternatives that can be useful in your part of the world as decorative features or horticultural features or as appropriate kinds of pets or displays.

MR. MEYERS: Well, I agree and there's another area, too, that we would have to work closely with folks and the Fish and Wildlife Service and the States. In some states we have surrender centers for some illegal species. And the problem is if it's not coordinated, a store takes it in and then it gets busted. So it's a real issue. And one of the real problems is a lot of people have these animals and want to get rid of them properly, but they don't want to be responsible for euthanizing the animal. And that's one of the tough decisions we're dealing with is how we tell people to turn over what they perceive as their pet snake head or something to have it euthanized. We have stores that opened up with snake heads. They weren't selling them. And they would just turn them over to state agencies. We need to get that networking going on. And that's ancillary in this project.

MR. STARINCHAK: And one other comment is that as exciting as this project is with everybody being involved with it, we're going to feel some heat on this. Just FYI, there are people out there who don't want to see anything killed and they are going to raise that issue and try to make it an issue.

TASK FORCE CO-CHAIR KEENEY: Good point. We're going to get on to the next subject. Thank you very much, Marshall and Larry. Appreciate that.

MR. STARINCHAK: Any other questions or comments? *[No response.]*

MR. STARINCHAK: Okay. Moving ahead then to the Communications, Education and Outreach Committee re-engineering process. Basically this is an evolutionary process. Initially folks focused on developing some consensus for the Prevention Committee to operate on a national level. Current involvement has been in an advisory capacity and to assist in project implementation, because we've been in full project implementation mode focusing on, again, Stop Aquatic Hitchhikers, the international project and then the aquarium hobbyist campaign. We also recognize that that does not fully leverage the capabilities and expertise of the entire committee. It's been giving us a lot to do so we'll want to revisit this. And we will be engaging all of the committee members to see how we can better take advantage of what they bring to the table, and move some of these activities ahead. Again, we're seeking enhanced involvement to further leverage the committee's expertise. So that's where we're going with that.

So as an action item for the Task Force members, if your are not involved in the Stop Aquatic Hitchhikers campaign, why not? Is there anything we can do to help? And are you interested in participating in the IAFWA project? I'm going to be passing out a newsletter with respect to the results of the first regional workshop we held highlighting some of the issues and things like that. I would encourage participation from all of you folks at the next three workshops. This summer is Sun Valley and the western workshop later in the fall, or in the southeast in the fall and then in the winter in the Midwest. This is an opportunity to take advantage of what the Task Force and its members know in dealing with this, coordinating, getting involved with helping the states to step up and address this issue as well. So any questions you may have with respect to this workshop and its process, where it's going, feel free to contact me. Larry, I'm sure, could give you some help as well. So I just wanted to make you aware of that.

As happy and as proud as I am to talk about the aquarium campaign and the Stop Aquatic Hitchhikers campaign, I have to say I'm professionally embarrassed about the next topic, and that's the Aquatic Nuisance Species website. This has been a logistical nightmare for me. I feel like I've let down the Task Force with respect to the Task Force website. The Department of the Interior, as you all know, underwent an internet shutdown, the second one. That has thrown my abilities to update the Task Force website into an abyss basically. I can update the Protect Your Waters web site, because it's set up differently than the Task Force website. But currently I cannot update the Task Force website. We have new firewalls within the Department of Interior and they're creating all kinds of problems. We've had problems with the hosting company who currently hosts the website. So, again, I am responsible for that and feel I've let the Task Force down.

TASK FORCE CO-CHAIR KEENEY: Would you explain what the shutdown means? I mean, because it I understand it got shut down, but then it got opened up again. I mean, so is it shut down right now, for instance?

MR. STARINCHAK: No, it's not, but there are existing firewalls in place that I'm having my technical people help me to understand how that prevents me from doing updates on the Task Force website. That's beyond my knowledge.

TASK FORCE CO-CHAIR KEENEY: Well, we need to understand that, too. Because, again, the website is a very important part of what we do and who we are and what we look like.

MR. STARINCHAK: Absolutely. And, you know, we had this conversation and I couldn't agree with you more. A bad website is worse than no website at all.

TASK FORCE CO-CHAIR KEENEY: Right. I agree.

MR. STARINCHAK: So I'm very pleased that we're having this discussion to seek out input and assistance from all of the Task Force. This is your website, guys. What do you want it to be? How do you want it to be used? What do you want it to communicate?

TASK FORCE CO-CHAIR KEENEY: Okay. Could we just think on that for a minute, because I think we can get some good input from the Task Force here. Just from my perspective the things that I think are important are pretty basic. The list of Task Force members ought to be up to date, but its not. Number two - available Task Force documents. Obviously the website ought to be an opportunity to disseminate Task Force documents, and I'm not sure that's happening. Number three - our state management plans - another obvious thing. That's what we do is we endorse state management plans and they need to be on the website and available to let everyone know that they've been approved. Does anybody else have anything to add to that? I mean, I'm sure there are others things people would like to say.

TASK FORCE MEMBER MOORE: I think we need to coordinate the links to the regional panels, and also their meeting schedules. Right now there's no place to go other than minding the Federal Register to be able to know when various panels are meeting. And the work that's being done in the regional panels is some of the most important this Task Force does. And I think it's important to make sure that information for the meeting schedules, even if it's a preliminary agenda, gets posted someplace before the 30-day Federal Register does so that people can make travel plans and obligate the necessary resources to be able to show up and make the kind of contributions that are really going to move the issue forward. In addition, and I don't know how well received this is going to be, but the strategic plan particularly discusses public awareness products inventory. I think one of the things that the website could be very, very useful for is to begin to both collect and make available a listing of what, particularly at the state and regional levels, what public awareness information is out there. In other words, some people have developed very good tools for species-specific identification. Other people have developed excellent tools for outreach of another kind, either as a functional outreach like cleaning your boat or whatever.

These tools are out there. A lot of other agencies, whether they're state or industry associations don't know that information has been developed and they're developing their own. And rather than applying our limited resources to duplicating efforts, if the Task Force could be the central collection point for at least the information. Not the materials themselves, but to have that inventory, to have it annually updated and to make it available on the website so that you've got essentially a product description and some kind of an organization that's both functional and species specific. And then a contact, whether it's a state agency contact or a publishing house, it doesn't matter. The possibility to trade logos; in other words, to fund your own printing and put your own logo on it. All those kind of issues. If the Task Force could develop a page on its website to be able to coordinate this inventory, I think it would be one of the most useful things that ANS issued could have a tool at its disposal nationwide, and it would really help outreach. Because right now I think people are wasting outreach resources developing materials that may already be developed and mature and just could be essentially borrowed or whatever and made available to others. I think that would be really useful for this website.

MR. STARINCHAK: That's an excellent point. We do have an existing link to the Great Lakes Panel. That's where they really showed some leadership in compiling a lot of that inventory.

MR. WILKINSON: Joe, excuse me. One of the other functions that I think of the Task Force website traditionally has been where can people go to get sort of just basic information. And it's been a decade, I think, since we really looked at content on the Task Force web site. And while the explanation, for instance, and what is an invasive species is a good explanation. At that time we were very Great Lakes oriented, and we probably need to go back and to redo some of those basic things. Also, there are good materials on individual species, but there are individual species that were put on that list that I don't know. Can anybody tell me here what Japanese sputnik weed is and where it's a problem? I think we need to go back and look at those individual species lists. Yes, the zebra mussel needs to be up there, but maybe Japanese sputnik weed doesn't.

And I actually would propose that we need anything that the Task Force is working on in terms of individual species management to be up there with some information. Also, if somebody would like to propose a species, I would ask our regional panels, do you want to do the species that we can feature? And if you do, you've got the responsibility for furnishing the material. And I think we need to go back and to look at those individual species accounts as well.

MR. STARINCHAK: Marilyn?

TASK FORCE MEMBER KATZ: I've had several people ask me, why would we want to think about developing a state plan? And if we want to, how do we do that? What's the best way of doing that? And I've explained to them that contacting your office is what they need to do. But I think providing clear guidance on the website about what it means to have a state plan, how to develop one, etc would be helpful. And then, once a plan is approved by the Task Force, what that can mean for a state. I think that would be very helpful information, because I've gotten several questions about that, especially since the amount of resources probably is going change year to year. Because as more states develop plans, if the total amount remains the same, then states would be eligible for less. So it's making that information current, for example.

MR. STARINCHAK: Right. Thank you.

TASK FORCE MEMBER MILLER: I've got a couple comments. One is in response to your comments. I think one of really good thing to do is to have frequently asked questions. Presumably lots of folks here have asked the same question again and again and again. Now, you're not going to be able to cover all of the topics in the detail that you might want to. But if there is a list, let's say, of 25 common questions that people have about developing a state plan, you can begin to start that answer. And then you can point to something more in depth for contact. I think another thing for the website that's probably really important from the user standpoint is, when a user comes to a website, they want to know that it has been recently updated, that it's managed frequently. And I think an important aspect is to have news, that's updated perhaps on a monthly or a biweekly basis. And that news could cover lots and lots of different things, including many of the meetings. It could link to what Kathy was discussing. There's so many meetings happening and different activities occurring. But often times people find out about them and it's too late for them to attend. And I think the ANS Task Force could take a real lead in highlighting some of those things.

MR. STARINCHAK: That's a good point. Thank you.

MR. WILKINSON: If I could follow on to that. We also need to take things down from the what's new. We still have up there something from either 2000 or 2001 on the Aquatic Nuisance Species Digest, which no longer exists. And that's on the "what's new" part of the website.

MR. STARINCHAK: Yeah. And we still have Sharon up there as the executive secretary. I'm sure Everett would like that but, I mean, as of right now I can't do the updates. So just keep that in mind. Thank you.

TASK FORCE MEMBER COFRANCESCO: Also we mentioned before about a calendar that would help us to be able to get a view of what things were coming about. And the more I hear from state agencies and about regional panel meetings, et cetera, if we had a calendar up on the website that we could go to that would list out these particular key events, it would be helpful. I think the National Invasive Species Council has a calendar up on their web site. Something along those lines, with information that is pertinent to the ANS Task Force would be very

helpful, because it would be a place to go to, especially when you're trying to cross reference some of these meetings.

MR. STARINCHAK: Yeah. There's no sense in re-inventing the wheel. They have fulfilled that niche, and that's something we can easily post, once we get those capabilities back. Everett?

TASK FORCE MEMBER WILSON: I think we've got a lot of good ideas out here on the table. But it's pretty obvious to me that in order to implement these good ideas, we're going to have to do a major rework of the website. And I'll tell you what the Service is thinking about since we essentially fund and run the website, we wanted this discussion to occur certainly not to beat up on Joe and what he hasn't done, but more to get ideas out on the table. And what the service would propose is that we take the website down for the time being as soon as we can and gather a group of people from the Task Force or their representatives together - perhaps the committee that Joe already chairs and get the content right and figure out what we want on there - we've got a lot of ideas right here already. And then contract with somebody to develop that website. Once that website is up and redeveloped, then we figure out a way to make sure that we manage it efficiently and that we keep it as up to date as possible. And, you know, you're always going to lag a little, but we'll take on the commitment to redo the website with your help. It's not something we can do by ourselves. With your help we will take on the project of redoing the website. And once it is redone, managing it to the best of our ability. We will always be willing to accept ideas, but you have to realize that we have limited resources both in personnel and in dollars. But that's what we would propose as a solution.

TASK FORCE CO-CHAIR PARKER: We can also identify a target date to get this done, too, Everett. We could shoot for one, anyway, realizing that it may not come through. But at least we can say by some date we'll have it up and running again after we shut it down.

TASK FORCE MEMBER WILSON: Yeah, I think it'd be a little difficult for me give you a date when we could do it. But we can go back and look at the workload and see what we can do.

TASK FORCE MEMBER COFRANCESCO: But based upon that, I mean I just want to point one thing out is even though a bad webpage is bad to have out there, I think you should have something out there that acknowledges that the ANS Task Force is still active - that we're still a presence. You may not have hot links, but may have particular pertinent points of contact on it. But just something out there because, I mean, invasive species are a big issue, and people will search the web and should know the Task Force is still out there. I think we should make an effort to let them know that there is a Task Force, that we're updating our web pages, that if you need pertinent information, contact one of the co-chairs or contact the secretary, or whatever else. But I don't think we should completely come off the screen as a blip on the internet when you do a search either. I think that would be a bad thing.

TASK FORCE CO-CHAIR KEENEY: Doug?

TASK FORCE MEMBER NYGREN: It seems like he's taking on a pretty big task here. To get everything that we want to have, I think what we should really shoot for is the ones that do more modern non-tech management systems, which then you pass responsibility on the people who are actually doing the various things, the panels, the committees to update the content so that one person isn't having to take all of this stuff and try to get it on the web. So I would encourage you to give the content management program that has responsibility for updating the content to the people that are actually doing the work. Maybe some review by somebody to make sure that before it goes out it's ready for prime time, but that would certainly streamline the process.

TASK FORCE MEMBER WILSON: Okay.

MR. STARINCHAK: Tina, did you have a question or a comment?

MS. PROCTOR: I'm Tina Proctor, panel coordinator for the Western Regional Panel. The Western Regional Panel and the Great Lakes Panel have been talking about redesigning our websites. And so it might be prudent for us to work together to, you know, maybe have a look that's similar and maybe we can work on it together.

MR. STARINCHAK: And one other point. And I think that's a good point, Tina. From what I'm hearing, you really want to see a strong communications vehicle, and that's certainly what I want as well. I just want to make you aware, that if you want a good website, you must be willing to pay for it, too.

TASK FORCE MEMBER WILSON: Yeah, I think we realize that, Joe. Mamie, you would like me to name a time when we would have this done, but I'm a little reluctant to do that without going back and looking at the amount of work that we have to do and trying to figure out how long it's going to take to get that done.

TASK FORCE CO-CHAIR KEENEY: Well, could we at least think about who you might want to have on this team?

MR. STARINCHAK: Yeah. I think we need to talk about a couple of things. One is the mechanism for doing this that's related to this Task Force. Are we talking about the working group with the Communications, Education and Outreach Committee or are we talking about a new committee? How do you guys want this to take place? You know, I certainly can facilitate a lot of this, but obviously this is an important vehicle for the Task Force. And we want to make sure that all of the thoughts and the desires of the Task Force are brought to bear in making this the best possible thing. So by establishing some type of formal mechanism, I think we can truly do that. So, again, it's up to the Task Force to decide where they want to go and how they want to achieve what I'm hearing they want to do with the website.

TASK FORCE CO-CHAIR KEENEY: Because the website is such a critical part of the responsibilities of the Communications, Education and Outreach Committee, I think that it should continue to be part of the process. I think it doesn't need to be a special subcommittee or another special group that we need to put together; however, I think we do need to decide today who some of the people are going to be that you're going to put on this team. What is the plan for the web page? What is it that we want to have on it? How are we going to keep it updated? What are the problems that we've had to date and how do we fix it? And then what is this date certain by which we're going to have it up and running again and not just have the flag that says, hey the Task Force is up and running, but we just don't have a website because we've got some problems and stand by because it's going to be fixed very soon.

TASK FORCE CO-CHAIR PARKER: Those are some good questions, but maybe you should take them one at a time.

TASK FORCE MEMBER WILSON: We would certainly note volunteers for the group to work with Joe along with his committee.

TASK FORCE MEMBER COFRANCESCO: I'd like to nominate a person, not myself, but we have an individual, Mike Roberts, who's worked on the National Invasive Species Council, Communications group and he would be a good point of contact to work on this. He's not on your committee at the present time, so I want to make sure that you get his name - he's our person for web pages.

MR. STARINCHAK: Yeah, and just to try clarify, the Communications, Education and Outreach Committee has 25 members. That does not mean that this working group has to consist of people from that, you know. Anybody can help, and obviously we've heard a lot of good thoughts and comments about how to improve and enhance the website. It's open to people who want to be part of a focused process, is what I'm trying to say.

MS. PROCTOR: I'd be glad to be on that group.

TASK FORCE MEMBER WILSON: Okay. That's good news - Tina Proctor.

TASK FORCE CO-CHAIR KEENEY: And, Joe, when we talked at break, we talked about the problems you've been having because the Department of Interior is under such stress when it comes to its computer system and whether it's up or not. Do we need to discuss today whether or not Interior is a proper location for this website? Is that something you want to talk about or is that something we want to consider at a later date? You know, because we've got to get this thing fixed. We can't just say, hey, the department's got some problems and it's up and it's down.

MR. STARINCHAK: And that's a good point of departure. But, you know, you need to understand some of the technical issues involved, okay. As I said, the Protect Your Waters web site is one site that I'm responsible for, as far as the Stop Aquatic Hitchhikers Campaign, and the Task Force website is one site that I'm responsible for. How I update them are two very fundamentally different technical issues. When the internet shutdown occurred, they wanted to shut down both sites. And I talked to Everett and he said "we're not shutting down either of them because they're paid for by a whole host of different funds."

TASK FORCE CO-CHAIR KEENEY: So it didn't get shut down then?

MR. STARINCHAK: No, it never got shut down. But my ability to update it is limited, because I do it from the HTML editor program. Every time I go to log on to that, I get kicked off the server. And I've talked to the hosting company. They've identified that it's problems with the Department of Interior. Our IT people are looking into it, and that's where it sits.

TASK FORCE MEMBER WILSON: But we could go to another company or use the same method that you use to update the other website and solve it that way.

TASK FORCE CO-CHAIR PARKER: This sounds like a question that this group should address and not one that could be addressed in here. I think we ought to move that one on. But getting back to other people that may have some interest, maybe we should just say as Task Force members and members out there to get back to Joe by the end of today if you have an interest in being on that group?

TASK FORCE CO-CHAIR KEENEY: Okay. Thank you.

TASK FORCE CO-CHAIR PARKER: And that just takes care of one of your questions.

TASK FORCE CO-CHAIR KEENEY: Right.

TASK FORCE CO-CHAIR PARKER: There were others, too.

MR. STARINCHAK: Well, I'm relying on our note taker to capture those. There was a lot new direction in a very short time.

TASK FORCE CO-CHAIR KEENEY: Okay. And also my pet peeve is that the Stop Aquatic Hitchhikers needs to be more user friendly. And I need to be able to figure out how to get on to it, and maybe some others as well.

MR. STARINCHAK: Yeah. We'll take care of that as well.

TASK FORCE CO-CHAIR KEENEY: Thank you.

TASK FORCE MEMBER ZANETELL: I wouldn't say I'm sure changing it would be a plus, but when we get these e-mail updates, it has the blips with the titles of articles. And there's a link above the main site, and then you have to figure out where those articles are. But within the website that we receive, if you could just hot link each of those article headings so that when you see the list of five, and say "oh, I'm really curious about this thing that's going on in Montana", you could just click there, and then it would take you to that URL, which would be a few pages within the main site. But what happens to me, and I'm not sure if this is what's happening to Tim, but to get to the main article, I have to go to the main site and then I have to kind of try to figure out where that article would be within all of the different topic areas. And I've learned over time through trial and error where to go, but the first few times there was a frustration point where if I had a lot of work going on, and I always have work, but whether or not I was in the mood to procrastinate or not, if I was in the mood to procrastinate, I would make sure to find the article and read it. But if I didn't think it was a responsible thing to do at that point in time, I wouldn't follow through. So it would be great if when we got the e-mails, you could just click and it would take you to the things you were interested in. But, like I said, I don't know how easy that is.

MR. STARINCHAK: Technically there are issues related to the strategy of why we send out these e-mails the way we do. So I understand on a personal level that this can be frustrating, but on another level it's still 81,000 hits. So I will try to be responsive to that and make the web page is more customer friendly.

TASK FORCE CO-CHAIR KEENEY: Okay. Karen?

TASK FORCE MEMBER McDOWELL: I have two comments. The first one I want to back up what she just said, if there was a direct link to the articles. And most of the time they are all interesting, but if there was a direct link on the e-mail message to go to the articles, that would be extremely, extremely useful. The other comment is on the ANS Task Force website development. I think it might be important to develop maybe a base, initially to get some of that old information off there, and get the new members up and maybe a calendar - just the basic information. And then once the team is able to start developing things, I mean, there's a lot of great things on this list and some of them are probably really easy to do and some of them are harder to have the committee to develop the latest approach to, you know, initially get something basic up there. And then go through the development, I think would be important to start getting changes up there as quickly as possible and figure out what's more important.

TASK FORCE CO-CHAIR KEENEY: Great. And I think, again, this resource issue is one that we need to constantly review, too, because resources shouldn't block an important tool like this. If resources are a problem, let's figure out how to fix that as well. Okay. Great.

TASK FORCE CO-CHAIR PARKER: I'm still asking for a commitment of a due date. And Everett knows when Mamie says she likes something that means that she really wants to see it. I want to see that by such and such we'll get X done. But just to make a statement for the record, I know for a fact that this is important and this is not the first time we've heard about this issue. And we have taken it seriously as one of Joe's priorities now. And we'll be working on it. And I know by the next meeting we'll have something that you all can be pleased with. So that's as much as I'm going to ask Everett to do at this meeting.

TASK FORCE MEMBER WILSON: Thank you.

TASK FORCE CO-CHAIR KEENEY: Yes, Could you say who you are for the record?

MS. BRUCE: Katherine Bruce from EPA. We have a compromise to establish the date of when that website might be up, of creating this team and getting that contractor and getting that venue started. So you don't necessarily have to have the website finished by such and such a date, but you have a deadline for establishing the contractor who is going to start this work and establishing the team members who is going to work on it.

MR. STARINCHAK: Thanks. No compromise. We'll get it done.

TASK FORCE MEMBER WILSON: All right. You know, what I would propose, because I really do need to look at some of the resources and what we have and how fast we can get it done, is that we can send an e-mail with a commitment of a date and time when we will either do what Kathleen proposed or when we think we can have it up and going.

TASK FORCE CO-CHAIR KEENEY: Okay. Thanks for that discussion. I think it was very helpful. And we've got a lot of good points that we need to address in the future. And we'll work on a time schedule, but we've got some good priority items to work on. Thank you very much, Joe.

MR. STARINCHAK: Thank you.

TASK FORCE CO-CHAIR KEENEY: We appreciate it.

MR. STARINCHAK: Great. And if anybody needs any Stop Aquatic Hitchhikers information, let me know. We have more and more flyers every day.

TASK FORCE CO-CHAIR KEENEY: Okay, now we're at the point in the schedule where we're talking about working group call for action. We'll now hear updates from several Task Force work groups on their recent

activities. In light of other changes we're making to the Task Force meetings, we'd like the work groups to do more than just report on recent activities. We'd like the working groups to present information to the Task Force so the Task Force can actually react to it, and let us know if there's any way the Task Force can assist the work group in doing its work. So we want it to be a little more interactive here, if possible, and encourage discussion amongst Task Force members. Because we're running late I would like to change the order here a little bit. Since they've both got planes to catch, Greg Conover is going to speak on the Asian Carp Working Group first, followed by Al Cofrancesco, who is going to talk about the Chicago Ship and Sanitation Canal Barrier. So with that, Greg is up.

THE ASIAN CARP WORKING GROUP UPDATE – *Greg Conover, U.S. Fish and Wildlife Service*

MR. CONOVER: Thank you. Okay. At the November 2003 Task Force meeting, I reported that a draft management plan was being prepared and would be used as a starting point for the first meeting of the Asian Carp Working Group. The draft plan that had been prepared did not include action plans and implementation tables. And those parts have been left out of the draft for cooperative development as part of the working group meetings as we finished the draft plan. As I was preparing for the December meeting of the working group, it became very obvious that more coordination was desired by the partners. So, to ensure that our partners in this issue were comfortable with the process and the draft of the plan, I decided to cancel the December meeting and slow down the process of the Asian carp management plan and the first meeting. Some of the partners, including other Fish and Wildlife Service offices had expressed to me their desire to be involved with the planning and as well as the development of the plan.

So a more inclusive process was initiated. And this spring, I assembled a planning team to assist with essentially the process that I had begun in the fall. So we had representatives from Fish and Wildlife Service Regions III, IV, V and VI, as well as from four state natural resource agencies. This was with planning. The planning team reviewed and advised the group of the goals, objectives and the framework that had been developed, and assisted in planning of the first Asian Carp Working Group meeting, which was postponed from December. The planning team promptly developed plan materials for the new first meeting of the working group. Such things as the meeting purpose and expectations, an agenda approach for the meeting and the necessary breakout sessions were developed. The planning team also jointly identified potential participants for the Asian Carp Working Group meeting, and invited them to the meeting. One additional measure that was taken was to employ the assistance of a professional consulting group to assist in planning and as well as to facilitate the Asian Carp Working Group meeting. And that turned out to be a very helpful move.

So as you can see, the working group finally had our first meeting. Instead of December we met in May. We met Monday of this week just down the hall here. It was a very good meeting. We had 68 participants here at that meeting. And you can see we had great diversity of representation both from agencies and organizations and interest at this meeting. Eight states were directly represented, as well as MICRA, who represents the Des Moines and the Mississippi River creeks, the Mississippi River basin states and natural resource agencies. The five Federal government agencies were present. We had the Fish and Wildlife Service, representation from Regions II, III, IV, V and VI. The Corps of Engineers, Forest Service and USGS were all present. The U.S. EPA expressed interest, but was unable to attend. We had two Canadian natural resource management agencies, the Department of Fisheries and Oceans, as well as the Ontario Ministry of Natural Resources was there. Two commissions, Great Lakes Fisheries Commission, as well as one tribal commission, eight aquaculture facilities. We had the president of the fish farms, private farms, as well as the four organizations representing the aquaculture industry, as well two NGOs, and three private consultants. And representatives from seven universities and research entities. So it was a really good, broad, diverse group and made for a very interesting meeting.

I have to say that I liked working on this. I left the meeting feeling like it was a huge success. It definitely step to step back and to not move forward with the December meeting, but to wait and move in with the cooperative planning and have the meeting in May. The meeting seemed very productive for the little bit of time that we had allotted for the large task. The task at hand was to move forward from the first work that had been done, and to actually get into developing action plans and implementation of timetables. So it wasn't just to sit down and discuss the issue and brainstorm ideas; it was to get some real work accomplished. Since the meeting was Monday, I am

still waiting, myself, to really see the outlook from the meeting and get a good handle on what came out of all of the breakout sessions. We had professional facilitators come for the breakout session. And from those facilitation teams, I got a lot of very positive feedback from the diverse representation of each of those breakout sessions there was a lot of very good conversation, a lot of accomplishment of issues. And by the end of the session they thought we had got through some of the barriers or uncomfortable situations between some of the representatives, and actually we had a very productive session. So I'm looking forward to seeing that material and knowing for sure where we stand.

We spent a couple of hours in the morning Monday having presentations to focus the group on the task. Bringing up Asian carp brings up a lot of interest, a lot of different issues that want to be discussed. And we spent some time focusing folks on the task at hand, which was the development of the management plan. Some of the information the presenters gave provided us with the most current information that's available on Asian carp. We had updates on their distribution status, we had some updates from the researchers telling us what the issues are that they are focusing on right now, and updates from the industry on what was the most current with their side of this issue. So there's a lot of good information that came out, and it was all very applicable in the breakout sessions.

The presentations and the discussion that was invoked by the presentations alone conveyed the urgency of the issue of controlling Asian carp, as well as the scope of the issues and the complexity of the issues related to Asian carp. And I'm going to digress just a little bit here. I asked Amy Benson with USGS, who gave a presentation Monday, if I could use a couple of her slides today. I want to put two slides up here that basically show how rapidly the expansion of the Asian carp populations are in our rivers that's taken place and how wide of a geographic scope this issue is beginning to cover. As you can see, this slide covers 1984 and 1991 in the upper right, and 1997 in the lower left, and then 2004 in the lower right. And you can see that these things are being found all over the place. They're very quickly spreading in distribution. If you look at 1997 and 2004, there's many disjunct locations where the fish were being reported from. We can probably safely assume that the fish are between those two places. We just haven't had the fish reported to USGS at this point from these locations. I also want to point out here Lake Erie is colored in red, and what that actually represents is three confirmations of bighead carp in Lake Erie that were collected – two from U.S. waters and one from the Canadian waters of Lake Erie.

From my experience in the field, silver carp typically follows behind bighead carp. If you catch bighead at one location alone, a few years later you're going to see silver carp progressing along, which has been kind of a stepwise approach to seeing them in new areas. So you can see that their expansion is just not quite as large as what the other map showed with bighead, but very similar in their rate of expansion and distribution and geographic scope. I really think this illustrates what we're facing out there, and how urgent it is that we start to manage and control these populations to prevent future interventions to the wild.

Back to the meeting. The participants were separated into four breakout groups and the groups addressed these top four bullets here: preventing spread, detection and monitoring, population control and abatement and research and information exchanges. Most of the participants expressed interest in wanting to participate in all of these. And we said, well, what we'll do is we'll have each group start with a different topic and we'll progress through them, and hopefully, if we can, we can discuss all four. But at a minimum we expected them to cover two of the topics. At the end of the day we had not got all the way through the first topic. And there were some really good conversations. And folks were drained, but wanted more. So it was very interesting. The strategy was to get the each group to take on a different topic. We covered all four. We got some good outputs from each of the four commentaries and covered all the objectives in the plan.

As I said before, the facilitation teams reported back that each group was very productive. But they also said that the breakout sessions provided a good forum for opening channels of communication, and provided for a lot of dialogue between resource managers, resource users and the aquaculture industry. There was a lot of time that was spent becoming comfortable with each other's side of the issue and I guess understanding each other's interests and concerns. Since we didn't get through all of the topics, everyone provided several ways to continue to be involved with the development of the plan. And we also had invited all of the participants at the meeting to continue to be involved with the development at the following meeting, and as well they were invited to participate in developing different components of the plan. So I think part of what we learned was that folks wanted to be involved, you know. And I think that was where I was kind of surprised with this. I mean, I expected going in that getting through the day and having a lot of good output was going to be a real chore.

But at the end, I had output and I had folks identifying a straight and narrow path to get the plan written. And at the end of the day I was kind of, like, man, this is on a clear path, because there's a lot of folks that want to be involved. And we need to have more communication with industry and the other folks to make sure that everyone has an opportunity to be involved here in the process.

So let's see here. I guess to get the management control plan written, the first step is to review and evaluate results of the meeting. And actually at twelve o'clock I'm meeting with the facilitation teams and we're going to discuss what the outcome was from the meeting and how to proceed. Consultants have also been contracted to develop documents, which will be reviewed by the co-facilitators for technical accuracy, and then go out to the participants as well for their comments. That will be, I think, a very useful document. And then for drafting the management control plan, as I said, it needs to be an open process. It needs to maintain opportunities for everyone to have input as we go through. We had many participants volunteer to continue to develop and write most of the plan. So I will be meeting with these folks and coordinating efforts to begin the drafting of the different components. So I still have on here the goal is for a completed draft is the fall of 2004. Is it possible? I don't know. But we're going to be ambitious and we're going to go for it. So, at that point it may well be just a draft plan that we get out to our partners and the stakeholders to further flesh out before it comes to the Task Force. But if possible we're going to have it to the Task Force in time for the fall meeting.

I started out joking about our needs. But at this point I cannot report that we have any needs from the Task Force. Until I get a handle on what exactly came out of Monday's meeting and we begin to draft the different components, we're kind of working and we'll know more here before too long.

TASK FORCE CO-CHAIR KEENEY: Greg, thank you very much for that stimulating report. And, first of all, I'd like to congratulate you on your successful meeting and in initiating the management control plan. I'd also like to recognize your good judgment in postponing the original meeting.

MR. CONOVER: Thank you.

TASK FORCE CO-CHAIR KEENEY: Maybe you could share with us some lessons learned there and how you got to that decision. Because certainly not often does delaying a meeting end up being so productive.

MR. CONOVER: Some of it was, I guess, direction and not just all good judgment. I was charging ahead on my own. I just really I wanted to make something happen and have a product. And I decided as I spoke with more and more partners and they spoke with more partners, it was just obvious that everyone wanted to be involved from the beginning. As frustrating as it was to me to stop and slow down and wait to have a meeting until May, it was definitely good. I had looked at it as if we need to have something accomplished before getting into the meeting, and have some work product. And what I learned was folks wanted to be involved from step one.

TASK FORCE CO-CHAIR PARKER: I'm going to repeat what's been said already – that sometimes it's good to wait. But I also want to commend you for still having a target date for completion. I appreciate that.

MR. CONOVER: It's kind of everybody's reaction. There was a lot of laughter, but I think it worked. We're going to be ambitious.

TASK FORCE CO-CHAIR KEENEY: Any other discussion?

MR. CONOVER: One thing I'll add to that though is that deadline is definitely a self-imposed deadline and is very flexible. Because one thing that I want to make sure we call to your attention is that we continue to make sure that everyone involved with the Asian carp issue is comfortable with the process and the plan. So we're not going to just charge ahead and have a plan to the Task Force at the cost of ownership and buying the plans.

TASK FORCE CO-CHAIR KEENEY: Anyone else want to say anything? *[No response.]*

TASK FORCE CO-CHAIR KEENEY: Thanks very much for that great report.

MR. CONOVER: Thank you and thank you for the adjustment of the schedule, too.

TASK FORCE CO-CHAIR KEENEY: And this will be appropriately followed by a report from Al Cofrancesco on the Chicago Ship and Sanitary Canal Barrier.

THE CHICAGO SHIP AND SANITARY CANAL – *Al Cofrancesco, U.S. Army Corps of Engineers, Waterways Experiment Station.*

TASK FORCE MEMBER COFRANCESCO: There currently exists a demonstration barrier in the Chicago Ship and Sanitation Canal to preclude the movement of Asian carp upstream. It's a demonstration, okay. It was put in for a three-year type of situation. And under the new legislation which is out there under the National Aquatic Invasive Species Act. There's verbiage indicating that a second barrier should be put in place, and the first barrier become permanent, etc. But that hasn't happened yet. And what we're dealing with right now is a barrier system that is a demonstration that our Chicago district I think would like to have put permanent. But permanent facilities such as a lock or dam, structure or whatever else are usually directed by Congress. Well, I have a memo here, which I can't really share with everybody, because it's going through the Corps chain of command. And I sit in a difficult position, because I'm sitting here representing the assistant secretary for the Army on Civil works, but I'm in the Corps chain of command also. And this is going to our commander in Washington. But let me just point out a few things, because the Task Force has to maybe think about what's going to happen in the near future if the Corps to them with this requirement.

Okay. The district commander has gotten the lawyers involved, and they've gotten the division commander lawyers involved. And basically what's happened is there's a memo going through our district to our division to the Corps of Engineers chief indicating that the first barrier one is the demonstration, but they would like to make it permanent. They cite a number of particular laws and they make a case based upon the fact that barrier one was authorized that they want to make it permanent.

So what they're doing is saying that the legislation says that whenever the Task Force determines that there is a substantial risk of unintentional introduction of aquatic nuisance species, by an unidentified pathway and the adverse consequences to such introduction are likely to be substantial, that the Task Force shall, acting through the appropriate federal agency and after the opportunity for public comment, carry out cooperative environmentally sound efforts with regional, state and local entities to minimize the risk of such introduction. Okay. So they're stating that. And then the next aspect of that identifies the particular Federal agencies that are on the committee. And then it says that the Task Force, to make this barrier permanent, is to determine by the Task Force that there's a substantial risk for the introduction of aquatic nuisance species into the Great Lakes through the ship canal. Which I think is a no brainer, but it then goes on with some documentation. And the second condition is that the Task Force is acting through an appropriate federal agency. And this requires two elements that they point out.

In order for the authorization to be effective the Task Force designates who the appropriate agency is through which to act and to address the risk. And then it goes into that saying that NISA pre-describes how the Task Force was to direct the appropriate agency; therefore, it seems that the likelihood of the requirements would be through a letter by the Task Force to that agency to take action. And then it goes on to say that the appropriate federal agency is then directed to act on the Task Force's behalf. It should be noted that they're responding to this particular Federal code does designate who the appropriate agency should be. And then later on down it says that the U.S. Army Corps of Engineers would be the appropriate federal agency for the permanent barrier. And then there's reasons which they give why we should be the agency responsible for the permanent project. It says the barriers are built and operated and maintained pursuant to contracts awarded by the Corps and that Congress has directed the Corps with regard to the barrier in more than one instances and the barrier is authorized by NISA in 1996 as a demonstration to be conducted under direction of the assistant secretary. Number two is that the Fiscal Year 2004 appropriation provides the Corps \$200,000 to conduct and maintain the barrier.

The letter also requires that there be an opportunity for public comment on this particular aspect. And then also that the implementation must be environmentally sound. What I'm getting to here is that I want you to realize that I think the Corps is going to come and ask you for a letter from the Task Force if they feel that's what should be done

- to request the Corps to make this barrier permanent. And this might not sound like a big deal, but what happens is it helps us in our funding and our ability to utilize different pots of money to work and to address the barrier, rather than a demonstration in sort of an ad hoc out of pocket way that we really can't put it into our budgetary process. And so I think that's what's going to happen.

TASK FORCE CO-CHAIR KEENEY: Do you have to reprogram dollars to do this or do you have already identified existing funds?

TASK FORCE MEMBER COFRANCESCO: Actually they would use different dollars to permanent facility versus what they're using right now for the demonstration project. So it would give them a better ability to program out dollars. And so it hasn't come to you officially yet, but I knew that the Chairs would like to be made aware of this and give you a copy of it. It just can't be out for public since our commander has not seen it and I don't know what he's going to do. He can forward it on to Mr. Woodley, who would be the person that would have an action on it, or hopefully maybe Dean will come up here in a minute and tell us that NAISA is going to be approved and we probably won't have to do this and Congress will already mandate to put the first barrier into effect, which I don't think is going to happen anytime in the near future. But, anyway, those are the issues that we're involved with right now.

TASK FORCE CO-CHAIR PARKER: Do you have an estimated cost on the maintenance of the permanent construction?

TASK FORCE MEMBER COFRANCESCO: Well, the first barrier is, of course, already in place and I don't have the details with me, but right now the cost is about \$500,000 a year to operate. In the operations type venue, what's going to be needed for the barrier to become permanent right now is that the cables in the water need to be changed. Okay. Now, that does digress into something else that just came up. And that is that even though NAISA has not been passed yet, we're still going ahead with the second barrier plans. And in that venue the Corps has, through their diligent efforts in reprogramming dollars after the fact this year, come up with \$5 million to go ahead and construct the second barrier with matching funds from the Illinois Natural History, I believe. So they are going to construct the second barrier. And I think they're trying to go ahead and make that one construction package where they can make the first barrier permanent and have permanent structures on it. But basically right now for the second barrier's initiation there's a shortfall of about \$1.7 million. About 2 million came in from state application, so they're looking for additional partners on that. So a meeting that was held on 13 May in Chicago of the Dispersal Barrier Advisory Panel. So we're working on that issue also. But I wanted you to know they're looking at ways in which they can get the first barrier authorized as a permanent facility. And I think the lawyers have come up with this legal opinion, that the Task Force can direct this in the best interest of the nation to have this as a permanent facility. And if that's the case, then we would go ahead and put it on as a permanent Corps project that we'd go ahead and budget for. So that might come down. But I don't know what your lawyers are going to say, as far as what the Task Force capabilities are or not.

TASK FORCE CO-CHAIR KEENEY: Well, what lawyers do we use, by the way? I'm just curious.

TASK FORCE MEMBER WILSON: If we're lucky, we won't ask any.

TASK FORCE CO-CHAIR KEENEY: Anyway, the floor is open for discussion on this. But I think we need to get to some action here at the end of the discussion. It seems to me that you have three different points you're asking for. One is, you want the Task Force to acknowledge the risk of the species to the Great Lakes.

TASK FORCE MEMBER COFRANCESCO: Yes.

TASK FORCE CO-CHAIR KEENEY: Two - you want the Task Force to designate the appropriate agency that needs to take action to minimize this risk. And then three - you want a letter from the Task Force to the action agency, which cites the various federal codes, and also acknowledges the reasons why a permanent project is, in our view, the appropriate way to go?

TASK FORCE MEMBER COFRANCESCO: Right. Well, like I said, this is more of really a heads up. But it was briefed to the Great Lakes Regional Panel a couple of weeks ago, I believe, that they had a little bit of a discussion

on this. And I just want to make sure that you were aware of it beforehand. The next step is for our commander to take a look at it, and I guess pass this back on to them in a official capacity. So I don't really think we need these items right now. But I want you to be aware of it, because I really didn't know what would happen, and the lawyers didn't really want to really come down and talk directly to you themselves, because it's still in the process of going to the commander. I thought it was at least prudent that we bring it out on the table and look at what the initiatives are that we want to make commitments towards. Mr. Woodley has been directed not to let anything pass up to the Great Lakes vehemently by the Congressional representatives. His position is clear on that. That the barrier will not be the reason that the Asian carps get to the Great Lakes. And so based upon that, we're going with that venue. And we want to be able to do this and be able to budget for it and address it in a proper way that it needs to be addressed, rather than sort of ad hoc and every time we have to sort of try to find funds for it.

TASK FORCE CO-CHAIR PARKER: What I imagine, too, is that we could get some consensus from this group so when the letter comes in, if it's between meetings and you're asking for perhaps a motion of some sort to say that we will acknowledge it in a response. There were two other points that I heard here that we want to make sure that we include is that we get public comments on this and that the project be environmentally sensitive as we look for ways to place it, right?

TASK FORCE MEMBER COFRANCESCO: Right.

TASK FORCE CO-CHAIR KEENEY: So we need to get public comment on this issue; is that what you're saying?

TASK FORCE MEMBER COFRANCESCO: The Corps would get the public comment.

TASK FORCE CO-CHAIR KEENEY: It seems to me this is an opportunity for this Task Forces to do something that's truly helpful to the process. And that's what we're all trying to accomplish. So if, in your view, there's something that we could do today, I'm certainly willing to entertain a motion to get moving and do it. So the question to you is ...

TASK FORCE MEMBER COFRANCESCO: See, I hate to ask that question, because if the general says we're not going to do it this way, then we sort of shoved it down his throat, because I'm sitting in for Mr. Woodley.

TASK FORCE CO-CHAIR PARKER: Could we make a public statement that we support part of this?

MR. MACLEAN: Couldn't you just make a motion that if we do get the letter, we will then proceed as we've talked about here? And if the district commander decides to handle it differently, then we'll have to take that up at a later date?

TASK FORCE MEMBER MOORE: I would like to make that motion that, upon receipt of a letter from the Army Corps to request the Task Force evaluate this, that we would, in fact, acknowledge the risk posed by the Asian carp migrating into the Great Lakes and that we turn around and acknowledge that the appropriate response agency is the Army Corps of Engineers with both the demonstration barrier in place and the plans to make that barrier permanent. And then that we draft a letter for the Task Force Co-chairs' signatures that would citing the proper legislation and acknowledging the three requirements that the existing NAISA in a sense requires that we go ahead and pass that on, not even waiting necessarily until the next Task Force meeting. We can pass that letter text around among Task Force members by e-mail or electronically so we could actually not be held up even by schedule in order to be able to respond to this.

TASK FORCE CO-CHAIR KEENEY: Do I hear a second to that motion?

TASK FORCE MEMBER GROSS: I second it.

TASK FORCE MEMBER MILLER: Second.

TASK FORCE CO-CHAIR KEENEY: Any discussion?

MR. DRYER: Will you take input from the audience on that?

TASK FORCE CO-CHAIR KEENEY: Sure.

MR. DRYER: I'm Mark Dryer, a chair of the Ruffe Control Committee. I work for the Fish and Wildlife Service. I would also suggest that this letter acknowledge the risk of invasive species moving from the Great Lakes down to the Mississippi Basin as well, recognizing the original intent that the barrier was targeted at that.

TASK FORCE CO-CHAIR KEENEY: So we can amend the motion accordingly?

TASK FORCE MEMBER MOORE: Absolutely.

TASK FORCE CO-CHAIR KEENEY: Thank you.

MR. WILKINSON: Yeah, actually one comment here - the demonstration project initially was to prevent movement out of the Great Lakes into the Mississippi Basin for round goby, so it not just an Asian carp issue.

TASK FORCE CO-CHAIR KEENEY: Good point.

TASK FORCE MEMBER COFRANCESCO: Right. And in the letter and in the documentation it doesn't state a specific species. It does state the invasive species - aquatic invasive species movement.

TASK FORCE CO-CHAIR KEENEY: All those in favor of the motion?

THE GROUP: Aye.

TASK FORCE CO-CHAIR KEENEY: Any opposed? *[No response.]*

TASK FORCE CO-CHAIR KEENEY: Ayes have it.

TASK FORCE MEMBER COFRANCESCO: Great. They'll be happy to hear this.

TASK FORCE CO-CHAIR KEENEY: Okay. So I think we're going to break for lunch now, and come back at 1:15. So we've got an hour for lunch, and it's lunch on your own. Everyone is finding their own lunch. Thank you.

[A RECESS WAS TAKEN.]

TASK FORCE CO-CHAIR KEENEY: Okay. We're going to get started. We're running a little bit late. Sorry. We got held up in the lunchroom. Okay. Tina Proctor, is she ready to go?

MS. PROCTOR: I am. I'm ready to go.

TASK FORCE CO-CHAIR KEENEY: We'll go with the New Zealand Mudsail Working Group report.

THE NEW ZEALAND MUDSNAIL WORKING GROUP – *Tina Proctor, U.S. Fish and Wildlife Service*

MS. PROCTOR: My job is to talk to you today about the New Zealand Mudsail Management Control Plan, which is in the process of being developed right now. The team is bigger than this, but these are the people who are writing pieces of the plan right now. And they're mostly professors or researchers from different universities in the west. And I guess that perhaps this has been one of our problems, I was going to say to Everett and Mamie, it's just been so busy. You know, it's been difficult to get the pieces from them. It's probably the only real problem I've had. I don't think that's something that the ANS Task Force can necessarily help with. It's just the question of me maybe doing some more with them. Because it's a small group of people who know anything about New Zealand

mudsnails. And they're all really enthusiastic about being part of this and I love working with them, they're just marvelous.

TASK FORCE CO-CHAIR KEENEY: Do you need a letter from the co-chairman?

MS. PROCTOR: Yeah, that might help – “by the way, your thing was due two months ago.” Okay. Well, I've got some cool pictures I'm going to put up now. Just to let you all know, because actually I was in the Mississippi River Basin meeting yesterday, and some of the people were talking about one of the priority species being the New Zealand mudsnail. They had no idea what they were. And I thought, well, maybe that's kind of true of some people here, too, you know, who have not been exposed to these little critters. But they're very, very small, 1 to 5 millimeters, and they're found in lots of different habitats, streams, rivers, lakes, estuaries. Little brown things, they are very, very tiny, with 5 to 6 whorls. And the interesting thing about them is that they reproduce asexually, and we'll talk about that little bit more later. And they're grazers. They eat algae. They're native to New Zealand - you probably figured that out and they invaded Europe in the mid-1800s, and are found throughout Europe. They're also at this point found in Australia and Asia, and have invaded North America. They arrived in the Snake River in the 1980s, and then also have gotten to California. So here is a picture - can you all see that all right? Can you see those red dots of where they're found in nine western states? So in the last 15 years they have really moved around. One national park, which is Yellowstone and they're also found in Lake Ontario. There's a population there. Four river basins, unfortunately, the Colorado, Snake, Columbia, and Missouri.

So what are their impacts? I know you've heard that you can find them in densities of between 200,000 and 500,000 per square meter. They certainly reduce food for others. They are not a good fish food. They have a little operculum on the end, which they can close up and pass right through the fish. And some of the research has shown decreased growth of fish in areas. One of the things I wanted to mention, too, was that they are often genetic clones - they reproduce parthenogenetically. Mark Dipdall from Washington State University has been doing research on the clones and has determined that the snails in western U.S. are often the same clone, and he believes are from either Australia or New Zealand. Maybe it went from New Zealand to Australia and then the U.S., but he can't really tell. There are three clones in Europe. And one is found in most of the fresh water bodies in Europe. And that's clone A. Clone B is found in Danish estuaries, and Clone C occurs in rivers of the United Kingdom. So they're more specialization – clones B and C are much more specialized; clone A is much more of a generalist.

The one that we have in Lake Ontario is clone A from Europe, so it's believed that it came to us by ballast water. I forgot one thing - there has also been research on invertebrates showing that in some places the snails consist of 95 percent of the macroinvertebrates, and that obviously is going to have an effect on fish as well as economical impacts such as on recreation, fishing, tourism and hatcheries. And there hasn't been a lot of study on that yet. But we expect that to increase as we find more and more of these things in the west, and as their population increases. So how do they get around? Why do they start in Idaho and now we're seeing them in the United States? Well, we've got a lot of reasons. It's hard to tell exactly which one took them to the places where they're showing up. But it's probably spread by anglers, any kind of sampling gear like you see here, aquatic vegetation or boats or snorkeling or hatcheries or swimmers or pets. So don't let your dogs go in the water where it's infested. They can be moved by lots of other animals and floating debris. Here's a picture of some - they move easily in the water.

What about control? Well, there hasn't been a lot of work done on control yet, but some research is being done on chemicals, some pesticides. Certainly desiccation would be an important control. Biocontrol is also an option because there are 14 trematodes which pair to the clones in New Zealand, and they're very specific trematodes. So it may be possible to find one of those that we would be able to use for biocontrol. There is a little bit of research that's being done on the by Mark Dipdall and his students. We need a lot more money to be doing research on that. California Fish and Game is, as we speak, researching how to give information to anglers and biologists about how to keep from moving these things around. And really a lot of these things are kind of difficult to do out in the field. Hot water - if you've got it; hot sun - you could leave them out in it; having more than one set of gear is good, but a lot of people can't afford that; or freezing your gear can be sometimes hard if you're camping, you know; or using bleach or 409 is also an option. We're doing more research on that. The message is, of course, to clean your boats and rafts, and throwing away the innards of the fish you catch if they're in infested waters, because the mudsnails can survive going through the fish bodies. Also just staying out of contaminated areas. California had to close one of their areas when they were found this winter.

So these are the kind of things that we're dealing with in the management plan. We do have a website that I told you about at the last meeting. But in case you didn't write it down, there's the address to go to is <http://www2.montana.edu/nzms/>.

At our next team meeting we will be reviewing our first draft. As of right now we're planning on a meeting in Bozeman in August. After the last three years spent on the New Zealand mudsnail conference, we decided not to do that again this year. The researchers would really like another year in between so they can get their data together. So we decided we would just go ahead and have our team meeting, and look at what we have for first draft. And, like with Greg Conover and the Asian carp, we would really like to have that available for you all at the next meeting in November.

This is a picture of me in California looking for the wild mudsnails, showing that I really am a field biologist. And I was out there with Erin Williams and some of her staff. And we found it sort of irritating even having to clean off our sandals and our nets, you know. I'm thinking about all of this gear that people have to clean. It would help if we had some magic thing for them to do, but obviously there's going to have to be a lot of education that's going to be necessary to get people to do that before they move from one water to another. So that's it. Are there any questions?

TASK FORCE MEMBER ZAJICEK: Have you done any projections where they may spread to based on their environmental tolerances or habitat needs?

MS. PROCTOR: We haven't done any projections yet as to where they might spread. That's one of the things that, we'll hopefully be able to deal with in the management plan, but it hasn't been done yet. Joe?

MR. STARINCHAK: The only silver lining is that this has attracted partners to the Stop Aquatic Hitchhikers Campaign – the City of Davis and Federation of Fly Fishers.

MS. PROCTOR: Yes. That's right. That's really good. Is Bob Pitman here? *[No response.]* I didn't have him on my list, but he and Bob Welcher from the Federation of Fly Fishermen are going to be working on the outreach portion of the plan as well, so, yes, the fly fisher people have really been interested, especially in California. Maybe too much, right? But, anyway, they've been very interested in being part of the education and outreach group and making sure their members understand the implications.

TASK FORCE MEMBER COFRANCESCO: Are they on the Aquatic Species Management Plans of the states that might have plans in those West, do you know?

MS. PROCTOR: They are I know in Montana and in California.

AUDIENCE PARTICIPANT: But you don't have the management plan?

MS. PROCTOR: The plan has been drafted, but it's not quite finished. Yeah, but we don't have a lot of plans in those states. Actually they are also in Oregon and Washington's plans. Idaho is working on theirs.

TASK FORCE CO-CHAIR KEENEY: You've got a question over here.

MR. HEIMOWITZ: Yeah, I just wanted to follow up. I'm Paul Heimowitz. I'm a relatively new regional ANS coordinator for the Fish and Wildlife Service in the Pacific Regional Office. And I'm just following up on Paula's remark. I've been coordinating with the Tina on this. We've been developing kind of a local risk assessment for part of central northern Idaho relative to one of our actual fish hatcheries, which actually has a water supply contaminated by New Zealand mudsnails. So it's been a big factor in terms of stocking operations out at that hatchery. And actually most of the state hatcheries in Idaho are also contaminated by mudsnails. So we've been working on that risk assessment and looking at that hatchery that I think we'll probably be able to somehow incorporate or reflect in this management plan as probably the model and how we can look at that risk of spread in other parts of the country.

TASK FORCE MEMBER McDOWELL: Has the genetic testing been completed on the California population?

AUDIENCE PARTICIPANT: I don't think it's been done.

TASK FORCE CO-CHAIR KEENEY: Joe?

MR. STARINCHAK: Yeah, one other comment. This particular species has the potential to really engage the political dynamic. In Idaho, in particular, Governor Kempthorn came out and said, do we want to make Silver Creek, which is a Blue River trout stream, a warning for how to deal with aquatic invasive species? I believe they're in Silver Creek.

AUDIENCE PARTICIPANT: Yes.

MR. STARINCHAK: And, you know, trying to get support from the inner mountain west - that would be huge to get them on board and to come out strongly support this. The Save Silver Creek Foundation is on board as a partner in the campaign. You've got to start thinking of how we can truly take advantage of some of this interest.

TASK FORCE CO-CHAIR KEENEY: Okay. Thank you very much, Tina. Next we're going to hear from Erin Williams on the Caulerpa Working Group. She chairs this group, and will give us an update on the progress of the draft management plan.

CAULERPA WORKING GROUP UPDATE – Erin Williams, U.S. Fish and Wildlife Service

MS. WILLIAMS: Okay. For some of the new folks in the audience, as well a reminder, that *Caulerpa* is actually a marine algae, and it's a fairly new invader to the United States. The Task Force actually responded with a draft prevention plan outlining ways to keep the *Caulerpa taxifolia* out of the U.S. waters. Unfortunately, just as that was being finalized and an action plan to implement that prevention plan, it was found in southern California in two locations. That eradication effort is well underway. It has cost about \$5 million to date. And preliminarily they have declared eradication. There have been no new finds of *Caulerpa* in southern California for about a year now, but the actual protocol for declaring eradication calls for three years of no finds before they will actually declare it eradicated. They still have plans to continue serving in the monitoring even after they will declare eradication. So the Task Force asked the Service, more specifically, my office to utilize the draft plans to create a national management plan for this species. And actually it's been expanded to genus, looking at different look-alike species for *Caulerpa*. And now actually there's a problematic species in southern Florida, that I'll talk about as well.

So we started actually getting all of the information from Region V on the draft prevention plan and the action plan incorporating a work group in September 2003. Just a reminder about the regulatory status of *Caulerpa*. *Caulerpa taxifolia* is a Mediterranean strain, and is actually listed on the federal noxious weeds list. There are nine species. There's *Caulerpa taxifolia* and eight look-alike species that are listed in California. *Caulerpa brachypus* is now being recognized as causing problems in Florida and potentially up the east coast. A lot of state ANS management plans have *Caulerpa taxifolia* in one of their management categories, either a species of concern or something they actively want to look at controlling or banning within their state process. An important thing to recognize in all of this is there are actually native *Caulerpa* species in the U.S. waters. So we're trying to deal with the management of the species while keeping in mind that we do have native *Caulerpa* that we need to address in the plan as well.

An interesting point of discussion came up at our work group meeting in February. One component of it was the complexity with the actual inspection of items coming through or being imported into the United States. And I want to give a quick overview. This is what came up at the meeting. It may not be 100 percent accurate, so feel free to jump in and ask questions if you have anything to clarify. USDA actually has authority over live plant inspections at the ports - airports and shipping ports. If there are unidentified shipments, it defaults to USDA. If they can't identify it or if they're in doubt, they can actually take it. APHIS PPQ specifically has authority over property and those items that are listed labeled as aquatic plants. So it would kind of go into their queue. APHIS also has authority over smuggling and interjection, and doesn't have authority for most non-plant shipments. And that's the point that will come up in the live rock issue. There's a fairly large component of APHIS PPQ that was moved over into Homeland Security. Customs and border protection has started to talk about a lot of inspections that are not happening now at their level. They would be responsible if *Caulerpa* is imported with a fish-for-consumption

shipment. They could look at that, and contraband intercepts as well. They have the authority over that. The Fish and Wildlife Service would have authority over live rock that they put in effect. There are issues with a number of inspectors at the ports to actually take care of that.

The California ban has raised an interesting situation with the state and federal inspections. So they need to get things processed in a timely format to make sure that things that imported alive stay alive all the way to the aquarium stores. And so that's raised some issues about coordination in California. The draft plan that we're working on right now, we're trying to keep in mind that we're dealing with non-native species being moved to areas that they're not native, not the native species. We have to make sure that we're pointing that out. The components of the plan include preventing introduction and spread, early detection, rapid response and monitoring populations; managing populations, research, educational outreach and adaptive management; eradication perhaps is a big component of this. We're still in a stage, where if we find it early enough, we have really good example to use from the California situation.

So in February of 2004 we had our first work group meeting. We have been compiling information from the various work group members over the last few months now. Some of the challenges that we've faced are lack of access to information. There's been a lot of work in the Mediterranean and the European countries on *Caulerpa*, but a lot of that is in another language, and to get it translated has been a challenge. There's no central data management for this species or genus either. And there have been enforcement changes that are really adding a layer of complexity to it all.

We have now kind of shifted the plan to the western coast. We have a team that includes all of the experienced eradication members. It's just been amazing the amount of information that we can bring in, particularly for the eradication and control and the survey of the plan. We have now an action item list that we're reviewing to make sure that we've captured everybody's thoughts about incorporating that information. And we have a really highly qualified active work group, so that is great. And we are also hoping on a draft plan at your fall meeting. So hopefully you guys will have a pretty thick briefing book to read then.

So as far as actions and input needed from the Task Force, here are some things that we brainstormed. Specifically some of the challenges we're facing, not necessarily in putting together the plan, but in dealing with *Caulerpa* on a national scale. And I think one of the components we need is some type of contact from either the State Department or the Department of Commerce or both with a lot of the suppliers of some of the plant species that are being shipped and the live rock as well. And some of it is just labeling and identification. And some of that is getting through, I think, with all the changes in the Homeland Security and the EDQ issues as well. There is a petition right now to the USDA to list the entire genus. I think there's also a separate petition to remove the Mediterranean strain off the Federal noxious weed list. I don't know if you know.

TASK FORCE MEMBER WALLACE: I think that petition is to list the entire species, not just the Mediterranean strains.

MS. WILLIAMS: But is there a separate one just to remove Mediterranean?

TASK FORCE MEMBER WALLACE: It would be for *Caulerpa taxifolia*.

MS. WILLIAMS: I do think that having them remove some of the complicating factors in the inspection right now would be helpful, because we really need to get at the genetics to identify this Mediterranean strain or not. And so people are running *Caulerpa* and it might be *C. taxifolia*, but it might be a look-alike, but you can't get the genetics done in time to really make that determination.

Another problem is engaging the aquarium industry - since this is potentially a genus of concern we need to be looking at a screening process for addressing *Caulerpa* identification again and addressing the labeling of shipments of live rock. I think it'd be really beneficial to try and engage them in helping make contact with a lot of those suppliers and things, rather than versus regulation. And I think, this is specific to *Caulerpa*, but I think it's broader than that as well - we need some mechanism for a rapid response fund. The efforts that came together in southern California - I'm not sure that you would have that kind of response again in any kind of situation that deals with

invasive species. But they really came together and they did the things that needed to be done in order to respond to that infestation.

Another thing we need is some type of permit mechanism. In California, specifically, the Governor can declare a state of emergency, and not have to go through necessarily the CEQA and the NEPA requirements. I think some other states don't necessarily have that mechanism as well. So you're potentially delayed several years in a response. Another issue - we have participation in southern California from some NOAA people, but we need some east coast participation, particularly somebody who has really national perspective. And I think that one of the challenges we ran into with many of the agencies, both state and federal, was that they didn't have the money to even travel to the work group meeting. We ended up supporting a large portion of those participants. And, for that matter, we didn't get another person from the east coast because of that issue. We also need to look at some type of improved enforcement coordination, and participation also needed from EPA, the State of Florida, National Park Service, Homeland Security. A person who came to our first meeting is retiring within the next year, and so I think we're going to lose that component from the Army Corps. Here is a list of the invited work group members. As you can see, it's kind of a wide variety. Not everyone was able to be at that meeting, but a lot of people are still participating via e-mail and participating input in that way as well. So that's all I have. Do you have any questions?

TASK FORCE CO-CHAIR KEENEY: Just one comment I'd like to make. With regards to your comment about California having the authority for rapid response for emergencies without regard to NEPA or state environmental requirements, it seems to me that it should be a critical part of any state plan. And we should probably look into that and make sure that that's something that we look at to assist the states.

MS. WILLIAMS: But I think even if *Caulerpa* was found today in California, they wouldn't have the funds to implement what they've done, you know, that was three or four years ago. So we also don't have the funding mechanism.

TASK FORCE CO-CHAIR KEENEY: Well, so, there's the money issue and the authority issue as well.

MS. WILLIAMS: Exactly.

TASK FORCE CO-CHAIR KEENEY: So there are two very important planning elements that need to be addressed in advance of the invasion.

MS. WILLIAMS: Yes.

TASK FORCE CO-CHAIR KEENEY: They've got a bunch of questions.

MS. WILLIAMS: Marilyn?

TASK FORCE MEMBER KATZ: Yes. On your list of members I didn't see, unless skipped over it, I didn't see an EPA individual mentioned. Were they not invited?

MS. WILLIAMS: They were invited, but I didn't list them. There was somebody from Hawaii, and their workload was too busy to participate.

TASK FORCE MEMBER KATZ: Well, because there may be two people in Hawaii in the EPA regional office.

MS. WILLIAMS: That's who we had working on the original draft of the prevention plan. And that person was no longer able to participate. So if you have any names, I would love to contact them.

TASK FORCE MEMBER KATZ: I do. And there is authority at EPA to provide emergency permits.

MS. WILLIAMS: Right. And that was one of the things that California really stepped down to the state water boards, which is where a lot of the participation occurred. And what occurred in California, I don't think could be repeated elsewhere. And because of that, we need to make sure that EPA is participating. Dean?

MR. WILKINSON: Yeah, a question in terms of this declaration of victory in San Diego and Huntington Beach. I was told that after two years of no recurrence that they would be willing to do so, and I think that occurs in November. And one of the things that the National Invasive Species Council has set up a calendar of invasive species of the month and they were actually looking at using *Caulerpa* as an example of a successful of an eradication effort. And have they become even more conservative in the two-year estimate. They initially told me they wanted two years with no recurrence.

MS. WILLIAMS: I think there's some disagreement over the actual protocol that was laid out early on. It said three years, and that's kind of a standard in California for weed management eradication efforts. But they also recognize the need for a good success story. So I think they are unofficially declaring it successful, and are not officially declaring it for another potentially year and a half.

TASK FORCE MEMBER WALLACE: Who is "they", Erin?

MS. WILLIAMS: "They" is the Southern California Caulerpa Action Team, SCAT. That's their acronym.

TASK FORCE MEMBER COFRANCESCO: I notice you have one person from Florida from the university system. Do you have anybody from the state?

MS. WILLIAMS: No, we don't. And that's what we need, somebody from there that we could recognize. Particularly since it was just discovered just over the last six months and has really become an issue.

TASK FORCE MEMBER COFRANCESCO: Where in Florida, do you know?

MS. WILLIAMS: I don't know exactly.

TASK FORCE MEMBER McDOWELL: Palm Beach.

TASK FORCE MEMBER ZAJICEK: In the southern portion of the Indian River Lagoon, my division happens to do the shellfish management, and has collected some of it. They go back to the sites and it's no longer there.

MS. WILLIAMS: Yeah, the invasive *Caulerpa taxifolia* seems to be residing in more deep water as well that the native *Caulerpa taxifolia* would not live in.

TASK FORCE CO-CHAIR PARKER: I have a process question. If you could go back to the slides where you asked for our support, I'm wondering what's the most appropriate way in which you could get some of these addressed? It seems to be based now on representation.

MS. WILLIAMS: Yeah. If anybody has suggestions of people, or even some of it might just be making it known within your agency that this is a priority through the Task Force to participate and make some funds available for travel or for participation would be fantastic. And having both those things are important.

TASK FORCE CO-CHAIR PARKER: Well, perhaps it's to give this information to the executive secretary to circulate these ideas here. We did put it on the agenda that we wanted you all to ask us for information. What we didn't do decide what we were going to do with your requests. But I think it would be a good idea to share it, and then we can share it with the Task Force and figure out a way to check off some of these things if we can. What do you think?

TASK FORCE CO-CHAIR KEENEY: Sounds great. Very good.

MS. WILLIAMS: Thank you.

TASK FORCE CO-CHAIR KEENEY: Thank you, Erin. We appreciate it. Our next speaker, Mark Dryer, will give us an update on the implementation and progress of the Ruffe Management Plan.

RUFFE WORKING GROUP UPDATE – Implementation of the Management Plan – Mark Dryer, U.S. Fish and Wildlife Service.

MR. DRYER: Well, good afternoon.

TASK FORCE CO-CHAIR PARKER: Good afternoon.

MR. DRYER: I'm Mike Dryer, project leader for the Fishery Resource Office in Ashland, Wisconsin, which is on Lake Superior, and chair of the Ruffe Control Committee. I assumed that position when I moved to Ashland and took over responsibilities of Tom Buihahn, who was project leader in Ashland and the first champion for the Ruffe Control Plan back in the mid-80s. So much of what I'm reporting today was set in place by Tom Busiahn and has since been carried out by our field office, most importantly, by Gary Czepinski, who is here to help with this presentation today. Gary is my staff biologist who does the fieldwork, monitoring and surveillance work for Ruffe and the reporting of the rough data that is gathered by him and other Fish and Wildlife Service offices across the Great Lakes, particularly in Lake Michigan and in Amherst, New York. So Gary deserves a lot of credit for the work he does, which is the information that I'm going to be presenting to you today. So what I will be presenting to you today is an overview of the accomplishments and the status and some observations about what's working and what's not working under the current Ruffe Control Plan.

First I'll give you an update about what ruffe are and the impacts associated with them, for those of who may not know about ruffe at all. Ruffe are a member of the perch family, native to Eurasia. There's no fishery value associated with ruffe, even in their native range, other than perhaps a forage fish. No value to humans. They're considered a nuisance in North America. They inhabit near shore areas generally within five miles of the shore including the turbid water around ports and river estuaries.

They presently feed on zooplankton and benthic invertebrates and feed on numerous fish eggs. They have a high reproductive output. Believed to spawn multiple times in one year, they grow rapidly reaching seven inches in their third year. The range of ruffe in the Great Lakes is shown here by the red dots. The initial discovery was in 1986 at the Blue Superior Harbor estuary area in the far end of western Lake Superior. They moved unassisted along the south shore of Lake Superior. This would be up through Wisconsin. And now they have moved unassisted to the Keewenaw Peninsula. In 1991 they were discovered in Thunder Bay Ontario probably as a result of the ballast water transport. In 1995, they were discovered in Alpena, Michigan, which, again, was likely as a result of transport, by ballast water

MR. WILKINSON: Alpena is in Lake Huron?

MR. DRYER: Oh, it's in Michigan. I'm sorry. Thank you. In 2002 ruffe were discovered in the Kewana Peninsula and in Lake Michigan. Ruffe were first transported to the Great Lakes in 1985. It took five years for them to reach this point; it took nine years for them to reach this point; and it took sixteen years for them to reach this point. So the control measures that are in place to control the spread is not 100 percent effective, but they are working in controlling the spread of this invasive species.

Ruffe are a serious threat. It's been recognized by a majority of fishery biologists. They pose a serious threat to diversity or abundance of fish in the Great Lakes and to inland waters. In 1992 the Task Force declared ruffe to be an aquatic nuisance species and determined that a control program was warranted. By 1995 a control program was presented to and approved by the Task Force. The goal of that control program was to prevent or delay further spread of ruffe through the Great Lakes and to prevent their spread to inland waters.

The plan was developed by the Ruffe Control Committee - an eleven-member committee with broad representation from different agencies and expertise. The committee meets annually to hear member reports, to update control and monitoring measures that are in place now and to set priorities for the future years and for the year to come. The objectives for the Ruffe Control Program are primarily centered around controlling and monitoring the status of the species and understanding invasion impacts associated with ruffe. The objectives, as you see them here, are population reduction, ballast water management, population investigations and surveillance, education, fish

community management, baitfish management and installation at the time of the Chicago Sanitary and Ship Canal Barrier.

So what's working well enough to make a difference? These four objectives of the Ruffe Control Plan are making a difference - ballast water management, surveillance, early detection, and education. Early detection was not even a buzzword at the time when the plan was put together. The education aspects of the program are live, well and working. I'll talk a little bit about some of these now. Particularly the Great Lakes shipping industry and implementation of ballast - voluntary ballast water management practices we believe have greatly slowed the spread of ruffe. Nothing is 100 percent effective. They take great pride in controlling the spread, as a result of ballast water management. We take great sorrow to learn about discoveries in Alpena, Michigan. Ballast water technology is advancing. We're still in the early stages of that, but it is progressing – both our understanding of the control of ballast water and organisms that can be transported within it. And most recently the policy of the International Maritime Organization is a positive step, and we'll learn more about that, I noticed, on your agenda.

But surveillance is the core of the program that's implemented by the Fish and Wildlife Service. The surveillance program is conducted across all of these locations, across the Great Lakes. In Lake Superior there are 24 dedicated stations that are monitored at least annually and sometimes three times a year. In Lake Michigan we have nine locations. Now, as a result of the ruffe discovery in Little Bayknock, these stations were first sampled this past year. In Lake Huron we have seven locations, including the location at Alpena.

I should step back here and point out that within the Great Lakes we recognize the range of the ruffe is west of this line, so these stations are within locations that currently have invasions of ruffe. And these stations serve as our early detection stations.

In Lake Michigan we have ruffe here. These stations were selected based on shipping traffic out of Alpena and will serve as our early detection sampling areas. In Lake Huron, it's the same situation - habitats outside of the areas where they would likely show up. In the lower Great Lakes we have sampling done out of our Amherst, New York office. In Lake Erie seven locations are monitored, and one in Lake Ontario. And ruffe do not occur in either Lake Erie or Lake Ontario, so these as well are strategically done by location where ruffe might be discovered based on habitat and shipping traffic. Another positive aspect of what's working under the current Ruffe Control Program is the educational program. The Great Lakes Sea Grant Network in Minnesota, Wisconsin and Michigan are doing a wonderful job of conducting the outreach for ruffe, and basically all of the invasive species in the Great Lakes. Watch cards are given to fishermen, boaters, recreationists involved in the invasive species in the Great Lakes and they're asked to bring those discoveries to the attention of other offices.

Everything you want to know about ruffe can be found at the Fish and Wildlife Service's website in Ashland. I'll pass around a copy of the Ruffe Control Program report that we produce every year. And on the top of the report is the website address, if you care to write it down from that, as well as my e-mail address, if you would like to have a hard copy sent to you. As well, agencies across the Great Lakes do a number of outreach programming, as well as the activities associated with that at the Ruffe Control Committee meetings each year and distributing outreach activities and outreach information. Big fish management, big dealers across the Great Lake have been actively engaged in minimizing the spread of ruffe, working with sea grant. They are, particularly in Michigan and in Wisconsin, attending aquatic nuisance species assessment training programs put out by Sea Grant. Bait fishers have restrictions within the State of Michigan about where they can collect bait, particularly at those locations where ruffe occur now. And they actively contribute to the knowledge and ideas of the Ruffe Control Committee associated with their industry and actions that they agree to take and would suggest that others take to minimize the spread.

So what's working? Well, with mixed results population reduction, population investigations, fish community management and the Chicago Sanitary Ship Canal. And I'll provide you with a few observations about each of these. Population reduction has been attempted starting seriously in 1998 in two sites in the Ashland, Wisconsin area on Lake Superior were selected for a test control experiment. One was where ruffe were concentrated at a river mouth, and the other was a location where they were dispersed. In the river mouth area at the Kakagon River 99.9 percent of the ruffe at the estuary were removed. The first total captured 891 ruffe. The last series caught about zero. So they effectively were removed from that particular location.

It's important to know that population reduction can be possible and can be a tool used when ruffe are in a habitat where they are confined and at a new location outside the core area, but recognizing, too, it's a practice that needs to be conducted every year. Ruffe are highly prolific and will colonize areas quickly. But it is a measure that can be effective with in the right place. Where they are not concentrated in Chequamegon Bay or around Ashland we are not successful in showing any results of our sampling numbers. Again, most recently in 2004 we attempted a population reduction in the Ontonagon River. We did not capture sufficient numbers of ruffe there, and we determined that exercise was unsuccessful. In Alpena, Michigan on Lake Huron, the Fish and Wildlife Service office there started a population reduction exercise in 2002 and continued in 2003 where they're doing this during the spawning period in the spring with hopes of confining that population in the Alpena area.

Here is some of the population investigation work that's ongoing. This basically is a measure of fish community response as a result of ruffe invasions. Our investigations continue, but at a reduced intensity with our declining physical resources to fulfill the Ruffe Control Program. We've selected this particular aspect of employment. We've had to cutback on our energy.

We have seen, though, some trends. Though none of them have been statistically significant. In this particular example here in the Flag River we are comparing densities of ruffe with densities of yellow perch. And in some years, although not significantly different, when we see an increase of ruffe population, we're seeing a decrease in perch. So, that's interesting, but not something that we can actually take action on. We need additional information on that and so we have holdouts in effort on that.

For fish community management, there are no specific recommendations for ruffe. Predators were stocked in the St. Louis River estuary when ruffe were first discovered there in the mid-80s. This was determined not to be effective. Generally a positive recommendation and a logical recommendation will be to maintain and manage for native fish communities to provide resilience against invasions of ruffe.

I just stuck this graphic in here. I'm going to talk about it at any number of locations, so I wanted to show an example here of a fish community that's been monitored over a period of over ten years now in St. Louis River estuary by the U.S. Geological Survey and still at this point in time ruffe compose greater than 50 percent of the fish pool in the St. Louis River estuary. So 15 years after invasion they're still in very high numbers and a concern to the fish managers there.

We heard about the Chicago Sanitary and Ship Canal Electrical Barrier earlier this morning. Originally designed and conceived as a means of preventing Lake Superior invasive fish from moving into the Mississippi River Basin of ruffe and round goby. Round goby, as you know, are downstream from the barrier. Ruffe are still not downstream from the barrier and so the barrier still can be a tool to limit the movement of ruffe into the Mississippi River, and can also be an effective tool on keeping carp in Mississippi and out of the Great Lakes.

Some overall observations, Ruffe Control Committee activities have delayed the spread of ruffe, I think particularly related to human activities. The unassisted expansion will be difficult to control, which even then emphasizes the importance of continuing with the Ruffe Control Plan to institute the ballast water management practices, work with the shipping industry to strengthen them and continue with the education aspects to control the spread from areas where they are transported to. Because from there they can move elsewhere without much ability for us to control. Measures are in place to limit the spread of waters outside the Great Lakes, and to waters connected to the Great Lakes, particularly I'm referring to the barrier and outreach efforts that are in place to keep ruffe out of inland waters. Increased costs coupled with reduced funding continues to affect our abilities to do our jobs. We set priorities and manage our program accordingly. A few more observations. Question?

TASK FORCE CO-CHAIR KEENEY: We're running short of time. You've gone 23 minutes.

MR. DRYER: Okay. So ruffe have been replaced by Asian carp as the species of interest back in the '80s as Asian carp are now. But there's no reason to be any less concerned about the invasion impact of ruffe. The fact that the program is controlling the spread does generate some complacency in believing that ruffe are no longer a problem. It's only because the practices are underway to keep them from becoming a problem. Early detection is vital. I'm sure you all know that. And much of the surveillance and monitoring work we do now is serve as that early detection opportunity. So with that, I welcome the opportunity for questions. Yes?

TASK FORCE MEMBER MILLER: Mark, have the population genetics been working out pretty well for the Lake Superior, Lake Michigan and Lake Huron populations? Are they the same?

MR. DRYER: Yes, from the geneticists that did the analysis.

TASK FORCE MEMBER MILLER: Lake Superior definitely was the source, though?

MR. DRYER: Lake Superior was the source. We have not done the genetics on the Lake Michigan population, as far as the discovery in 2002 in Lake Michigan. But the discovery in Alpena in Lake Michigan and the ruffe in Thunder Bay, well, it was within Lake Michigan, but generally the Lake Superior harbor area.

TASK FORCE CO-CHAIR KEENEY: Thank you very much, Mark. We appreciate the presentation. We're going skip over to ballast water management on the agenda. So the next two speakers will report on the progress of a theme that's been part of the Task Force activities since 1991. It has been a common theme throughout the existence of the Task Force to reduce the risk of new introductions through ballast water. There have been both domestic and international components and quite a bit has happened since our last meeting, which we're going to report on today. Initially the focus was on the Great Lakes. The Coast Guard promulgated regulations requiring ballast water exchange for ships entering the Great Lakes. As part of the reauthorization (of NISA) in 1996, NOAA and the Fish and Wildlife Service were mandated to set up a competition for the development of new methods of ballast water management. Pam Thibodeaux provided us with a report on where we stand with regards to this program.

The 1996 act also put voluntary guidelines in place with a provision that if voluntary guidelines were not effective, that ballast water management would be mandatory nationwide. Despite the responsibilities for Homeland Security, the Coast Guard has been very busy on ballast water. They set up a program for approval of experimental technologies and a proposal rule that would mandate ballast water management nationwide.

On the international front, the International Maritime Organization has been working toward ballast water convention for over a decade. In February of this year I was honored to be part of the U.S. Delegation on the final negotiations before approval of the convention. Over the years the U.S. government has been in the lead pushing for a convention and in structuring the format of the convention. I'd like to thank all of those who have worked for these many years. And they deserve a lot of credit. It's been over ten years, a tremendous amount of work, a lot of diligence, and I'd like to thank those who have been involved. While the final version of the convention was not as strong as the U.S. had desired, the format follows the U.S. position closely, and we retain certain elements that will allow flexibility in our own program. I don't want to steal Lieutenant Commander Kathy Moore's thunder, so I'll let her talk about the specifics of the convention. But, Pam, if you'd be so kind as to lead off this session on ballast water, I'd appreciate it. and, by the way, I'm going to have to leave. I have to be the keynote speaker in Fort Lauderdale at Coastal America's annual meeting tomorrow morning. And my plane leaves at 5:50, so I've got to hit the road. But thank you very much. I enjoyed being here, and see you at the next meeting.

BALLAST WATER DEMONSTRATION PROJECTS PROGRESS REPORT – Pamela Thibodeaux, U.S. Fish and Wildlife Service

MS. THIBODEAUX: Hello. I'm Pam Thibodeaux and I work for the Fish and Wildlife Service. And I'm going to give a presentation on the progress of the Ballast Water Technology Demonstration Program. And for some of you who were with us last year in New Orleans, I reported on the awards we made under the 2002 ballast water competition. In 2003 we did not hold our competition because of lack of funding. This year we did have a competition; however, the timing isn't appropriate right now to report the results and who we're giving awards to yet. We'll certainly be able to do that in November.

I'd like to, though, go over where we are with the program and touch a little bit on where we'd like to go. As a quick refresher to some of you that may not be very familiar with the Ballast Water Demonstration Program, it's authorized under the provisions of NISA. There are currently three federal agency partners that implement the program, the Fish and Wildlife Service, NOAA and the Maritime Administration. And the goal of the program is to

assist in the development and demonstration of commercially viable ballast water treatment technologies that can be employed by ships to minimize the risk of introduction of non-native aquatic species via the discharge of ballast water. And as we just heard, it's currently run as a Sea Grant competition.

I'd like to start with some of the accomplishments we've made so far. NOAA and the Fish and Wildlife started implementing the program in 1998, and MARAD joined us as a third partner in 2002. During this time we can say that we have funded projects for the majority of the technologies identified in the National Research Council's report Stemming the Tide. The program has broadened interest in ballast water technology research. And I'll qualify that by saying that I'm basing that statement on the number of proposals submitted to the competition. We started with just a handful of researchers actually submitting proposals under requests for proposals that we put out in the first few years. And in more recent years we've had more than 40-some proposals submitted. We have successfully, I think, encouraged the development of partnerships among the industry, engineers, biologists and business people. It's really an issue that needs the input from a variety of different sectors, not necessarily traditional work partners. We expanded to include MARAD, who offers the use of ships, which is one of the issues. We were not having ship owners necessarily be willing to provide access to their ships for experimentation and demonstration. So MARAD stepped up, which is the Maritime Administration, and through the competition offered the use of MARAD vessels. And most recently we've been working with the National Institute of Standards and Technology's Advanced Technology Program. And they do a lot of work with helping businesses go from sort of the conceptual stage to actually becoming commercially viable. So that's a niche we're trying to fill by learning more from them.

Well, everyone wants to know "where's the technology?" And, I hear it more often than I can say, "which one is promising?", "how close are we?", "when will they be able to be put on ships?". And before I take a stab at answering these questions, I'd like to present to you one of the U.S. Commission on Oceans policy said in their preliminary report for the "State of the World Oceans". I'm going to read this: "Although NACPA directed DOI and NOAA, in cooperation with the Coast Guard, to conduct projects that demonstrate technologies and practices for preventing introductions through ballast water, Congress has historically underfunded this program. The current limited program supports some technology development, but is unable to demonstrate the real world effectiveness of these technologies for treating ballast water." This may not put us in the best of lights. It's difficult to disagree with this assessment. And as an example, this year under the Congressional earmark on NOAA's budget, \$1.77 million was appropriated for the testing of a specific technology. The funding will be used to do one test of one technology. And approximately \$200,000 of that sum is going to be used to actually carry out the tests. And the remainder of the funding will be used to do the engineering necessary just to get the technology on board. The Oceans Commission continue to make a recommendation that the National Ocean Council should commission a credible, independent, scientific review of existing ballast water management research and demonstration, and make recommendations for improvement. The review should consider the following issues: How federally funded research and demonstration programs can best promote technology development, support on-board ship testing and improve technologies for research to commercial use; What's the best role for industry and then how industry can be engaged in on-board testing of experimental ballast water management technologies?; What kind of peer review process is needed for scientific oversight of the technology development?; selection of demonstration projects and testing of experimental treatment systems, and what an adequate funding level for a successful program would be. Minus this last bullet, for which I have no comment, the program has been working to develop answers to these other questions.

And we really are looking to continue to evolve to meet the needs of the ballast water community within our existing resources. Some of the other issues that were not spelled out within the Ocean's report, or the preliminary report that I think a big one that directly relates back to where we are, where's the technology, is the need for a standard to measure the technologies against. And we hear over and over again, you know, investors won't invest in any technologies until they have an indication of whether or not the technology is going to meet whatever regulation and standard is set. And sort of aside from that, from the Ballast Water Demonstration Program perspective, for us to heed the progress of specific projects that we have funded, this is also a milestone that would be very, very useful. It is very hard for us to tell you how far we've come when we don't have know what we're shooting for. And we hope also that having some better targets out there will assist the researchers and their technology development. And then the other issue that I'm not sure is fully understood is the way we have been running the grant program and the way it operates now.

And there's a lot of benefits to the way we have conducted the grant program. The researchers have equal opportunity to compete for funding. It has the potential to draw in researchers from different sectors. We have the ability and we have employed the assistance of a diverse and knowledgeable technical review panel to help us analyze the merits of the proposal. We've incurred a step-wise development of projects so that projects move from approval concept up in scale so that we are not funding projects at a very large scale that have not proven they can work at a laboratory level. But there are also some other benefits, but there are also some limitations that we face. And one of the most up-front one is that what we are funding is what people submit. So it's difficult; our choices for funding under a grant program are what people turn in. So in particular in the beginning years when there were so few choices, you know, this was definitely an issue, and we really expanded the outreach so that we get more proposals. But still with the 40, we have to rely on what researchers out there in the community submit to us, and that has proven to be potentially limiting. And then oftentimes projects are only funded through early phases of development.

So there is no guarantee in the way we run the program right now that if you're funded one year, you'll be funded the next year, you'll be funded the next year. Within our review panel, I think that there is serious consideration taken to technologies that we could continue to move forward. But the reality is some projects get funded for one or two years and so we make a half-step forward. But we never get to the place where the technology is explored, but that it might end up in a full-scale scenario. And there are really few other sources of funding for ballast water research. And so there are not many places for those researchers to turn in, if for whatever reason, they are not successful in a competition to continue their work. And recently and there are some developments that sort of are accelerating everything, and one being the Coast Guard, which really is cranking on regulations or going through the process to work on regulations to develop a standard, as well as developing the program that'll provide incentives to ship owners to allow experimental technologies on board ships.

The IMO has met in February, and the outcomes are significant that relate to ballast water. And Kathy Moore is going to be reporting on this next. But these developments, I think, will catapult ballast water technologies into the next phase. And then our program is really looking within to try to determine how to move with the rest of the world into this next phase, and how we can further the research and demonstration on some of these technologies. So the best help is to get them on board ships. And we were asked to ask the Task Force for help. And to be honest, I'm not sure that we're ready to ask you for help. We really are interested in receiving Task Force support and assistance as we move into this next phase. And if it's acceptable I think we'd like to in the interim between meetings go back and formulate a mechanism to engage the Task Force membership. And I'm expecting this would be in the form of an e-mail through the Executive Secretary requesting specific inputs. And based on our earlier discussions today and being that Mamie is my boss, I figure I better commit to a time frame. So I'm looking at July 16th to have something submitted to the next meeting so that we can get some areas where we really need input to the Task Force to get it in front of them. But I'd like to say any preliminary ideas on how the Task Force could contribute to our efforts would be gladly accepted at any time. And I've got my business cards. I'll just pass them around as the next speaker is coming up.

And you can call me or e-mail me. We're really sort of at the brainstorming phase on what we can do to continue to be relevant and really meet the needs that are out there right now. And for any reason you'd rather talk to Debbie Ahern from MARAD or Dora Carlson from NOAA, then just let me know. And I'll make sure I get you their contact information. That's it. Any questions? [No response.]

INTERNATIONAL MARITIME ORGANIZATION UPDATE AND ANS PROGRAM UPDATE – LCDR Kathy Moore, U.S. Coast Guard.

TASK FORCE MEMBER MOORE: Good afternoon. We're going to roll on through this. Despite what the agenda currently says, you're going to find that my presentation integrates what's going on with ballast water, because it's probably a little bit easier to understand the progress of things chronologically, rather than dividing them up into separately domestic and international efforts. But before I do that, I want to introduce you to the newest Coast Guard team member. Christina, if you'll stand up. This is Christina Paruzynski freshly implemented from the Coast Guard. We're going to appoint her to be our Coast Guard outreach individual. So she'll be your point of contact if you're doing outreach and you want to some brainstorming. We're very happy to have her as part of the team.

The first thing I'm going to talk to you a little bit about is something you've already heard referred to as the Shipboard Technology Evaluation Program or STEP. I'm happy to be standing here to say that in the November 2003 meeting, I sort of made promise that I would have a program by the first of January. And, in fact we did that. January 7th the Federal Register notice we sent out. We published the program, launched it, started receiving applications on April the 1st. The goal of this program is slightly different than the Ballast Water Demo Program. It is not a funding mechanism at all. It's designed to be an incentive to get ship owners to make a commitment to team with ballast water developers, as well as signs to be able to really learn something significant about these systems on their on-vessel application. So there's a requirement. There's a certain amount of rigor, in terms of experimental design. And the participation is contingent on continued results. It's a very important element, we feel, in gaining good commitment. That's the core details for how to get details on the STEP program.

What's going on with our ballast water regulation projects? Our ballast water final rules were mandatory management and the penalties for mandatory reporting. We're punching up the stocks on the three months that OMB has to act on things, but I suspect those three months will expire before we have final rules published. DHS is an infant agency, and I think they did the best they could, but they kept our regs a little bit longer than we had anticipated. It's unfortunate. But they are still trying to do the right thing, and sometimes the right thing is not the quick thing. OMB is a charter agency, and I'm not sure why it's taken so long to get them through there. Ballast water discharge standards: as I've already mentioned, we're already starting to roll down this road. And it is my job to kick the can down the road. I'm working hard at that.

We have started the NEPA documentation effort for development of a ballast water standard. What does that mean? We have to do an EIS for this - a programmatic nationwide EIS. It's probably the most difficult thing for the Coast Guard to do, because it's certainly outside one of our core missions. So it's a blind process for us. We're very fortunate to have some vital partners in that effort. We are very closely working with EPA. And I am very grateful for John Lishman and his team to be working with us. We're also working with NOAA and Fish and Wildlife Service to cross the barriers of the ESA (Endangered Species Act) consultation process at the same time, so we could essentially kill two birds with one document. That is the progress of that. Please don't ask me for a delivery date for that. That's not an answer I'm allowed to give.

Quick summary: When the final rule publishes, it will be a clearance process. In talking about the standard, we have not strayed from the very important three things that we wanted out of the standards, but whether it was being developed domestically or whether we were talking about negotiations at IMO. What does it have to be? It's got to be scientifically sound, it's got to be environmentally protected and it's got to be enforceable. Not anywhere in there is anything that says it's got to be achievable with current technology.

The reason is we want to make this standard, establish it once, and have technology be developed, be able to accomplish it and not make the mistake of having to do a standard and then another standard and then another standard and to lose time and address invasives by going through regulatory hurdles. So what do we know now that we want out of the ballast water discharge standard? What's really important is going to be concentration dates, because that all speaks to that enforceability part. The full range of organisms to be addressed: That speaks to the biological detectability limits. Detectability limits goes back to the enforceability. Living organisms versus viable: This means nothing to most of the people in this room. But if you were there at IMO in February, you would be pulling your hair out over this discussion. What we're trying to determine here is because some treatment systems have the ability to make an organism unable to reproduce, there is a desire on the part of a variety of states to define a win, essentially, as making an organism not viable.

The trouble is, is that's a very tough definition and it could be time dependent; in other words, you may incapacitate an organism's ability to reproduce. And then if you let some time go by - I don't know if it's 17 hours or 17 days - it can repair itself. So living versus non-living is a much safer definition. In the U.S. we're much more comfortable with that. I can tell you that it's a fight that we lost at IMO. But there are other states and other member governments that felt the same way as the U.S. did about that definition, and they may end up on their own defining viable as living. So that battle is going to basically play out on the international stage, as well as in the domestic stage. Indicator microbes: The microbe issue in terms of protecting against the introduction of certain microbes is a pretty complex one. We chose the route of establishing indicator microbes. We lost the battle at the IMO for them to be essentially a set that we started with that could be broadened.

I think the possibility of amending the treaty is always there; however, at this point the set defined by the international treaty is limited to a strict set of indicator microbes; whereas, we're very much hoping that in the U.S. we can say including, but not limited to, to see how that evolves. Right now the microbes in the IMO standard in the convention are all related to human health. There is a desire in the U.S. to broaden that category to include those that may be ecosystem health; in other words, shellfish-fed threatening microbes and other microbes. So we're really trying to get better than what's available to us internationally, but we'll see how that develops.

These are the three categories of organisms addressed by the standard. Pretty much have gotten everything that swims or floats or is a microbe. Those are the concentration ranges that it is very likely our environmental analysis will focus on. We're selecting alternatives within these ranges in order to essentially get the full possibility of what may pop up either as what we already know to be the international standard and what could be available to us as a domestic standard. In addition, you'll also note if you followed the notice of intent publication, we have additional alternatives, obviously, the required no action alternative, as well as the sterilization alternative. So we're looking at five or six alternatives in terms of our NEPA analysis. So if you want that headache, please come help us. There's a quick update.

Many of the people in this room are probably not terribly involved in the ETV process. But the Environmental Technology Verification Program is actually an EPA program that the Coast Guard has started to work with the EPA a number of years ago to basically begin to deal with verifying and evaluating treatment technologies early in the game; in other words, developing these protocols. The most recent technical panel meeting was in April that I attended. And we got an update on where things are at - protocols are still being developed. But I'll tell you, it's really promising. NRL, the only research laboratory in Key West has a facility that they have stood up protecting those water treatment technologies, and they are very close to operationally testing their first technology and they're getting ready for their pilot scale test. That facility is still be fleshed out. But what a tremendous foot in the door for being able to evaluate essentially treatment technologies on the same initial basis. We're also trying to identify the characteristics that we're going to need as well as a surrogate set to put in challenged water in order to be able to select a set of conditions to challenge, if you will, treatment technology for its performance in order that we can establish a verification program that essentially is going to be independent of how the treatment process works.

The ballast water diplomatic conference was a week in February. And then during that week we essentially fixed on the language of the convention. And within five weeks we were talking about guidelines at MEPC51 that were to be written to support the convention. We're going back to London in October of this year to refine those guidelines. That's a tremendously heavy burden, as far as generating all of the work in support of these meetings.

Key provisions as part of the convention are what I'm going to call key wins for the U.S. - the fact that we have the ability if we decide to be a party to have more stringent measures even under the convention. We have the ability to have a ballast water discharge standard that's going to be implemented in the convention on a schedule of fixed days. Why is that important? That telegraphs to the developing industry, as well as the ship owners, when they're going to have to do something. There was a desire by a number of countries to have it tied to entry of the force, which really is an investment decision. It make is very nebulous when you're going to have to be in compliance. So this compliance schedule was a big win for us. We also were able to convince the international community to eventually completely phase out ballast water exchange and move to a ballast water treatment standard across the board. That's absolutely huge.

Other components: Ballast water discharge sampling for compliance under port state control. It seems obvious, but I tell you that there were a number of people in the room that really wanted to say "I am in compliance if I have a certificate." And you don't have to look any further than that. Other people wanted to say "that if the little green light on my ballast water treatment system is on and lit, I'm in compliance." We have been able to move past that, thank goodness. And we're actually going to be sampling ballast water for compliance with the standard under the convention, too. In addition, we're going to be able to do experimental testing of ballast water management systems on vessels even after the standard is in effect. Why is that important? It allows us to have technology continue to be developed, to be a little cheaper and more effective, and maybe open the door, if necessary, to further refine the standard in the future.

What are the implementation conditions of the convention? 30 countries representing 35 percent of the gross tonnage of the world's fleet. There are 13 guidelines to be developed. The first ballast water standard applicability is June 2009. We have to complete a review of the maturity of ballast water treatment technologies prior to that, so that review is now scheduled for July of 2005. It is May of 2004. I'm not kidding about the panic. The guidelines that are absolutely critical for the July 2005 review are how to approve a ballast water treatment system, and something called the approval of ballast water treatment systems with active substances. An active substance is essentially any substance that has an effect on organisms in ballast water. So all of the ozone treatments, all the biocide treatments, all that would have to be essentially evaluated under this G-9 guideline. That's important, because that G-9 guideline is going to be used by IMO to approve these things, not by a flag state administration. Critical for entry into force are the sampling guidelines and ballast water management plans. These are not critical for the review, but they are critical for the actual entry in the enforcement of the convention.

Operational ballast water exchange, ballast water exchange designed to construction standards: That's focusing on how well the ship conducts exchange. The sediment reception facilities, sediment control on ship, risk assessment. Risk assessment in terms of evaluating whether or not a ship on a particular route can be excused from any ballast water management practice, because the route is of a certain type and that the environmental conditions are such that there won't be an invasion. This makes a lot of people very nervous. Finally, the additional measures including emergency situations. Approval of ballast water prototype treatment technology, there's a very good chance what the U.S. had planned when writing that guideline. Ballast water management, equivalent compliance: this has to do with sailboats, recreational vessels, search and rescue craft and a variety of essentially other non-commercial applications.

And then finally, ballast water reception facilities. What do we plan to do on MEPC52? The groups that have been charged with drafting these guidelines are going to submit their guidelines as paper documents into the meeting. And IMO's subcommittees - we'll be getting some input from them. We'll have to generate the final drafts of these guidelines. The working group will also finalize the criteria for this group - the review, as well as something called the decision-making tool. All that means is a set of criteria that are going to be weighted in order to be able to make some decisions with respect to the review. At 53 when we're doing this review, there's going to be a tremendous amount of input to required to support the review. We'll talk more about that in November, when we meet again, and then we'll be adopting these guidelines, the ones that are complete.

So with all that, is there anything left for me to do? I'm afraid so. Verify mid-ocean ballast water exchange remains a challenge. As you know, the Coast Guard with vessels going into the Great Lakes is focused on salinity. That's not a good answer for all source water, because some source water is so salty that we necessarily can't tell that they've done the mid-ocean exchange. We're still also establishing that ballast water discharge standard. Does it work? That needs to be done with this environmental analysis as the tip of the iceberg. We're still learning about ballast water management systems and their evaluation in order to be able to develop the rules for their approval. And we're also working to be able to figure out how are we going to sample and then evaluate a sample of ballast water to determine whether or not it complies with the standard we set.

We talked a little bit about enforceability and some of those detectable limit issues, as well as sample preservation, sampling protocols, how to get a sample, where to take it, what to do with it. They're all challenges. Some of the things that are important for you to know is that we're going to be doing is for our environmental consequences work associated with EIS for the ballast water discharge standard, we're going to be convening this expert panel to help us write that section of the EIS. So some of you may get an invitation. Another thing we're going to do is hold a technical workshop in the Great Lakes area, probably in the Cleveland area, to talk about some of the management practices and evaluations of their effectiveness in addressing the greatly specifics of NOBOBs, no ballast on board, and the possible transfer of invasives via NOBOBs.

So what is our future? We're going to finish what we've started in terms of domestic rulemaking. We're going to work in support of the ballast water convention to make a better convention to establish and to implement these guidelines to make it a better convention. We're going to continue the research and development efforts to support enforcement and evaluate the treatment systems, and we're also going to be working with the people in this room, as well as other stakeholders, to develop and implement a variety of ANS control and prevention strategies, not only is it going to focus just on ballast water, but the commercial shipping vector. And I think because of time we're probably going to go. Are there any questions?

TASK FORCE CO-CHAIR PARKER: We can take a few questions before we stop for break. Any questions from the Task Force members? [No response] These are questions for both Kathy, as well as Pam. Questions from the audience? Yes. Can you state your name, please.

MR. EBERHARDT: I'm Roger Eberhardt, chair of the Great Lakes Panel. Kathy, do you have a specific timeframe on NOBOBs? Could it be this year or next year?

TASK FORCE MEMBER MOORE: Yeah, very likely this year. We're shooting for this year. What we've got to do is basically there are a lot of academicians that we want to have on the workshop. And basically getting their schedules and what their basis is for the challenge.

MR. EBERHARDT: Okay.

TASK FORCE CO-CHAIR PARKER: Anything else?

TASK FORCE MEMBER MOORE: The one thing the Task Force could help us to do is certainly we would hope that they would express their support for interagency MOUs in jumping through some of these endangered species consultation hoops as well as the NEPA hoops. Or just help to be able to lay the groundwork for these agreements for these continued relationships so that we don't have to essentially convince people after, you know, multiple years that we've already worked together like this before. MOUs are useful for that, so would be very helpful.

TASK FORCE CO-CHAIR PARKER: Thank you both, Pam and Kathy, for your hard work and enthusiasm. Can we celebrate them for doing a good job? [Applause.]

TASK FORCE CO-CHAIR PARKER: We will now take a break. And after we return, we're going to hear from the regional panels. We'll take a 15-minute break.

[A RECESS WAS TAKEN.]

TASK FORCE CO-CHAIR PARKER: Okay. We're going to ask each regional panel to spend about 15 minutes each on their presentations. Today we'll hear from four of the six panels. The Gulf of Mexico Regional Panel and the Mid-Atlantic Regional Panel could not make it to this meeting; however, the other four panels are here. The Task Force did make a commitment to improve coordination between the panels and the Task Force and to continue to work diligently on that coordination. As many of you know, we held a meeting of the Chairs of the regional panels after the November 2003 ANS Task Force meeting. That meeting was very informative. The participants identified a number of products to improve communications and efficiencies that are under development. We are interested in continuing that dialogue so we can maximize the opportunities that exist between the regional panels and the Task Force. So first I want to, again, celebrate the panel Chairs for providing written summaries. They are in your blue folders and available for you. We're going to start today hearing from the Mississippi River Basin Panel. And they have been our hosts over the last couple of days and tomorrow. We want to thank them for planning the field trip, again, as Tim said earlier, and certainly arranging for the Mississippi River Basin presentations that we will hear tomorrow morning. So thank you very much for your hospitality. It's great to be back here in the great State of Missouri. I spent six years here in Columbia, so it's good to be back. I'll turn it over to Jay Rendall.

MISSISSIPPI RIVER BASIN REGIONAL PANEL REPORT – Jay Rendall, Minnesota *Department of Natural Resources*

MR. RENDALL: Thank you. Thanks for coming to the middle of our panel basin. We have lots to share with you. As you can probably tell, we've made a lot of progress since the last Task Force meeting. But I don't have the written update, though, because we just met yesterday and this morning, and so we'll forward that on afterwards.

The panel, as I said, has a lot to report. We've been very active. So far this year we've had two meetings, which means within the last 365 days we've had three panel meetings and have been really moving along.

We started out with some informational things at the first meeting and part of the second meeting trying to raise the awareness of our members about the various aquatic nuisance species issues. And now we're moving into more action, and I'll tell you a little bit more about that in a minute. Our membership includes 46 official panel members plus their alternates, and then 21 interested parties so far. And if you look in your directory, which we just completed, it has a total of 71 people listed in there. And we also have others. The Forest Service and some other groups are interested in joining the panel, and so we're working on having them become official members. In terms of species, we have identified that the Asian carp are the top basin-wide aquatic nuisance species problem. And that's followed basin-wide by the zebra mussel. And then we've surveyed our sub-basins, the various different river systems: Ohio, upper Mississippi, lower Mississippi, and others, Missouri. And we've identified these species as priorities: the round goby, Eurasian watermilfoil, hydrilla, white perch, New Zealand mudsnail, purple loosestrife and salvinia species. And Gary Rasmussen will provide you more detail tomorrow with our regional presentations about those, so this is just a quick overview.

Issue priorities: many of the states are developing their state plans. We have some states that have already completed their plans, but many more are working on them. And then, of course, related to that all of us are very interested in getting more federal funding to implement the plans. We're at the point now where if you're looking for money, there's not a whole lot there. Every time we add another state, the amount we get goes down as you well, though, so we're hoping to work on that through our members to work on some additional funding. This is an issue that was raised by our research and risk assessment committee.

There's a strong national need to increase awareness and skills in conducting risk assessments. And that's due to the increasing need for them, and the fact that there are very limited numbers of individuals that are qualified to do them. And I'll mention in a minute what one of the things we'd like to do to help in that area. The panel continues to make good progress as we move into our second year. Our committees have finalized some lists of responsibilities and work plans and budget needs for the coming year and the year after that. We had a very good meeting, I think, in the last two days and the committee has made tremendous progress. And I'll show you some of the examples in a minute. I really feel that we filled the void that was in the center of the country. We're on track to fulfill our responsibilities. We know each other now, and we've got the membership up. And we've got a list of things we want to work on, and I think we can be a very effective panel. The Prevention and Control Committee has a list of proposed projects we'd like to identify. Actually we have identified priority species and we want to work on a matrix that shows the status of infestations and the need for management for those amongst the states.

We worked on a position statement at this meeting related to barriers and fish passage. Obviously it's a pretty clear issue when you're talking about connections like in Chicago between major watersheds. But within watersheds like the Mississippi River Basin or just within the upper Mississippi River we have the issue of the Asian carp moving upstream, and we'd like to do some prevention to stop that. And we have also the need for native fish migration in the river system. So we've developed a position that we view regional or strategically-placed barriers to protect unique resources or other things as a reasonable thing to do, in light of fish passage and that fish passage between regional barriers can still be enhanced. And so we're not trying to say one needs to replace the other, but we do need to make the statement that fish barriers can be a good strategy. Whether they're effective or not, that's another issue.

ANS harvest: should we harvest Asian carp or other things that are harmful species? We have a draft of that, and we'll be working on that some more. But we thought that was much needed. A position statement, which I'll read here shortly, supporting national screening for intentional importation into the United States, and then we would like to request a clarification on the Lacey Act from the Fish and Wildlife Service or whoever you may defer it to. But there seems to be lots of confusion as to what it can do and what it does do. And this has gone on for several years, and we'd like to get that clarified as much as possible from the solicitors or whatever so that we know whether or not to support certain things and whether or not we want to have any alternative federal laws be established in place of it. So we'll be sending you something about that.

The position statement on national screening was just drafted in the last day, and I'll just read that quickly. And this also acknowledges that we don't know all about the Lacey Act and aren't trying to say that we do. But I'd like to suggest the following: The panel recognizes that the national screening process has to be implemented to prevent

intentional importation of potential invasive aquatic species into the United States. The current process of performing a basic risk assessment for listing as injurious species under the Lacey Act after the species have become invasive is ineffective. Should the screening process contained in the recent reauthorization fail to be enacted, the panel suggests that the Task Force explore the possibility of developing and implementing the national screening process under the current Lacey Act authority. So an idea that we'd like to pass on.

Okay, next under our Information Education Committee we're going to do an inventory to identify product and messages and audiences that are both available and that would be recommended. We want to coordinate with other panels to make sure we're not duplicating things. We'd like to do an inventory of all of the information products, so that we know before we develop something, whether there's a substitute that might be available. We will be helping to compile a list of regulated invasives in each state, so that the public or commercial entities would know what's legal and not legal to sell or transport in our states. And then encourage additional states to conduct a model boater survey that many of us have already done in Minnesota, Wisconsin and Kansas and others. So we'd like to do that to have a basis for doing our marketing and a little market research to go along with it.

The Research and Risk Assessment Committee wants to develop a database of experts and current research. Risk assessment workshop that connects the Mississippi River Basin meeting, so in January we would like to have a workshop on risk assessment and how to conduct those. And Cindy Kolar from the USGS is the one who is sort of spearheading that idea. A research priority list, so we can share that with others as they look at what research they want to request funds to do. And then sponsor a symposium on ANS research at the 2005 Midwest Fish and Wildlife Conference. So that's a partial list of what came out of our meeting the last couple days.

I also have a few other recommendations for the Task Force. This one, I think, is a strong suggestion that the Task Force place a high priority on the focus of prevention especially on introductions into the country, between the states, within interbasins and intrabasins spread of ANS. And the rationale for that is that as states we're very limited in our ability to address international and interstate commerce, as well as we don't have much authority to fund the projects outside of our state borders. So federal leadership and funding is needed in several areas of prevention. Another recommendation is that we should continue to seek coordination across panels, and perhaps have some joint panel meetings of adjacent panels. And then finalize the standard operation procedures that we were discussing in November. Another idea is to seek a federal law that would prohibit the transport of aquatic plants or listed aquatic nuisance species on public roads. Obviously there are exceptions, so legally purchased and bought things would not be part of it. But driving down the road with trails of hydrilla or milfoil behind your boat - or any aquatic plants, because they could carry zebra mussels - or any zebra mussels attached to your boats, would be illegal. And this would fill a big void. Many of us are implementing these laws. But a national law would be very helpful. We also recommend the establishment of a national contingency fund for rapid response. Many of us are not equipped to have funds to deal with this, especially if it's an interstate or inter-jurisdictional area.

And then we also have one request, that the Task Force provide an update on the reauthorization and perhaps other issues at the international meeting in New Jersey this September to the Fisheries and Policy Committee and the Legislative Committee so that we can try to engage the directors of those agencies more into issue. And last, we'd like to thank the Task Force for supporting the panel financially. And we'll be requesting our next year's funds so we can continue our good progress. So that wraps up my report, and I'd be glad to answer questions if you have time.

TASK FORCE MEMBER WILSON: On the Lacey Act stuff, we certainly could come to one of your panel meetings and make a presentation on the Lacey Act that might answer a lot of the questions that you would pose. And it might actually be better if we could get more panels together to meet all at once, so we don't have to keep doing it over and over again and traveling a lot, that would probably be better. You know, we'd be glad to do it.

MR. RENDALL: I guess off the top of my head I would think that maybe we write you what the questions are that we have, and maybe just getting something back in written form would be adequate. I mean, there's issues as to whether it does or doesn't apply between the continental United States. Does it apply to intentional and unintentional actions? You know there's a variety of things, and we could probably just deal with that on paper rather than try and get people together.

So I think those of us that deal with this full time, it's our profession, that don't understand it, we've asked and one solicitor has says one thing, and another one says something else. We need some help, you know. Of course, my solution is that we should just write a new law so that everyone can understand what's going on.

TASK FORCE MEMBER WILSON: It's called plain English, and lawyers don't know that language.

MR. WILKINSON: Jay, I have a question. And actually it's something that probably we should alert the other panels to while I ask the question. You mentioned that your panel will be working on a research priority list. And actually the sea grant projects are done for two years, so we're coming up on the next one, and we do go to the regional panels. And I wondered what your time frame was for identifying research priorities so that they could be useful in the next Sea Grant competition.

MR. RENDALL: Well, I don't have the notes from their committee meeting to know where it was on the timetable. But we can certainly work toward having it done before then. So when will that be?

MR. WILKINSON: Okay. To some extent we're dependent upon when Congress makes the appropriations. And we didn't get appropriations this year until February, but we intend to put out our request for proposals actually sometime this fall in anticipation that we will get the funding.

MR. RENDALL: Well, then I will pass that on to our committee chair and see if we can't at least have a preliminary list as soon as possible.

MR. EBERHARDT: And it is in this year's work plan, so that seems very doable, based on their planning and their timetable.

TASK FORCE CO-CHAIR PARKER: Any further questions from the council? [No response.] The audience? [No response.]

TASK FORCE CO-CHAIR PARKER: I applaud the panel for its progress you've made since the last meeting. It was a wonderful presentation. But also for moving ahead in some of your committee activities. And in terms of funding, I did want to make one comment about the administration's budget that's up on the hill now. We're waiting for Congress, as Dean has said, to approve it. There is a slight reduction in that budget for the Service's ANS program. And I believe it speaks to funding for some of the plans. And so it's a slight reduction, but I just want everybody to be mindful of that.

MR. RENDALL: Okay. Well, we'll try to work to encourage some increases.

TASK FORCE CO-CHAIR PARKER: Let's celebrate Jay. [Applause.] Okay. Next we have the Great Lakes Regional Panel, and Roger Eberhardt will be giving this update.

GREAT LAKES REGIONAL PANEL REPORT - *Roger Eberhardt, Michigan Department of Environmental Quality*

MR. EBERHARDT: I'm Roger Eberhardt. I work for Michigan's office of the Great Lakes, and I am currently chair of the Great Lake Panel. Jay Rendall is the former chair and we also have another former chair here, Ron Martin, from Wisconsin. The Great Lakes region is the eight Great Lakes states plus the Canadian provinces of Ontario and Quebec. And the Canadian federal agencies are also represented on the panel. We have a number of folks working with us. I have made it a point at this point in my career to only attend good meetings. And the Great Lakes Panel is a meeting that I really look forward to. It's not just one that I attend because I'm supposed to - I really enjoy the Great Lakes Panel meetings. It's an unusual opportunity to get a lot of really good people together. We have a lot of fine representation from folks that work very hard on aquatic nuisance species on just an amazing resource, the Great Lakes. I've got a couple of slides here that were put together by the Great Lakes Commission which facilitates our panel. Some of the things that are sort of key operational sorts of issues that are related to the Great Lakes Panel's efforts at the moment. We're working hard right now to define roles and responsibilities of

some of the at-large memberships and officers. We're trying to strengthen the panel membership even more than it is already to make sure that we've got all the folks involved.

I am particularly interested in getting some more industry and business representation on the panel in addition to just the agency representatives. And we're redeveloping some mission statements for our various committees. And we're trying to work right now with taking advantage of some of the expertise of our panel members, especially in light of reduced funding for some of the agency operations. Those of you that are from state agencies or represent the state agencies in some way know that the funding situation in states right now is just dismal. We have no money to do anything. In fact, we're redressing our funding. And so we're seriously considering operations that can bring some resources to some of these efforts that are non-state-based funding. We've got our three committees in the Great Lakes Panel: Information and Education, Research and Monitoring and Legislation and Policy. Each of them are working on things that I have heard echoed a number of times here already in the course of the meetings that I've attended. I was able to go to the Mississippi River Panel meeting yesterday.

The Information and Education group is working right on strategies and priorities for information and education. Our Research team has just completed and finalized and approved our research priorities, so maybe we can get those out right now. We've got them available, and we can make those available to anybody who wants them for free. And our Legislation and Policy Committee is working on a couple of things right now. We developed a statement on the National Aquatic Invasive Species Act. And Tom reminded me that we're also considering right now the screening policy that's come up also in the Mississippi River Panel. So that's another important issue for the policy folks.

And a service to the Great Lakes community that is provided through the Great Lakes Panel as part of what the commission does is our ANS updated quarterly newsletter that's available on their website. Two other specific things that have come out recently in the activity updates are a couple of articles. One, on keeping track of aquatic and invasive species in the Great Lakes. The NOAA Great Lakes Environmental Research Laboratory in Ann Arbor has taken on the task of listing the species that are in the Great Lakes and keeping the list updated, which has proved to be very useful. And the other article that we recently published was on the St. Lawrence research inventory, which is maintained by the International Joint Commission out of their Windsor office. And that's also proving to be a useful resource inventory available to anybody who would like to know more about available research. We're working hard right now on a rapid response plan for the Great Lakes. We collected rapid response plans from a lot of different sources, and we customized them and integrated them into a model plan for the Great Lakes. That plan is out in draft form right now. And the State of Michigan took a species that we currently don't have in Michigan, hydrilla, and developed a case study for that plan. So we have the model rapid response plan for the Great Lakes and the case study for that in the form of a hydrilla case study. And both of those are available right now. And we're going to be holding a web-based virtual conference on that in July. It'll be our first web-based conference on kind of an experimental basis for Great Lakes Panel activities anyway. Partly in recognition of the fact that the states are having a great deal of difficulty just traveling right now, so we're going to want to experiment with that and see how that goes for a workshop on rapid response based on the web.

The commission is also developing an early detection and monitoring program just for Lake Michigan Basin as a pilot for early detection. And they are also developing a model GIS assessment of the invasive species in Michigan waters. That is also web based. And I suspect will prove it to be useful, but it is in a very formative stage right now and currently is, in fact, so formative that it's not actually out there yet, but it will be. Our last meeting held in April, we held in conjunction with some of our counterparts from the Baltic Region. I learned a great deal from getting together with folks from northern Europe and talking about the exchanges of invasive species from the Great Lakes to Europe and vice-versa, some of the common issues, some of the common thinking that's going on, some of the common research.

I learned, for example, that one of the important aquatic invasive species in Europe is the muskrat. And it never really occurred to me that muskrat would be important there, but by golly they are, so it was a great exchange of information, and we'll be pursuing a number of very specific things related to that. I suspect I'll be doing some follow-up work on ballast water with some of the folks from that region. And I know that we're thinking about doing some kind of joint statement between the Great Lakes Commission and the Helsinki Commission on invasive species. Some of the things related to specifically this meeting, we've already heard the importance related to the Task Force of implementing some of standard operating procedures for the regional panels. The Great Lakes

Commission has made a commitment to updating the operating procedure for the Great Lakes Panel and is interested in making sure that they're consistent among all the regional panels. We're very interested in coordination. I got a great deal out of attending the Mississippi River Panel meeting. I really hope we can do some more joint meetings. I hope the Task Force can meet more in conjunction with regional panels. It would be great to have you come to the Great Lakes region and meet in conjunction with the Great Lakes Regional Panel at some point. We're interested in coordination with rapid response planning, and certainly in funding mechanisms for general operation of the panels. That's the key issue for the Great Lakes at this point. And thanks to Al this morning in his presentation on the Chicago Barrier. The Task Force has already taken action on the possibility of supporting the critical issue of making the demonstration barrier permanent in the Chicago River. So those are some of the key issues that, actually to a great extent, have already been discussed here even in the short time we've been together. So here is contact information for the Great Lakes Panel. I've mentioned a few of the things that we've got available right now. They are free. You can steal all you want any time you want. And the commission had does a fine job of maintaining a good website for the panel. So anybody have any questions about the panel's operation?

TASK FORCE CO-CHAIR PARKER: Any questions from the Task Force?

TASK FORCE MEMBER ZAJICEK: I was just going to suggest that that web-based workshop or conference sounds really interesting. And I know I'd like to get a notice on that when it occurs and maybe participate.

MR. EBERHARDT: Okay. Good idea. Yeah, I'll make sure that Kathe Glassner-Shwayder keeps the Task Force informed about that as we go along. For those of you that know Kathe, she sends her regards and wishes that she were here.

TASK FORCE CO-CHAIR PARKER: From the audience I saw a hand in the back. Could you state your name and tell us where you're from?

MS. TREMBLAY: I'm Michele Tremblay, Northeast Panel. I have a comment and a question. The comment is I agree with the coordination goals among the panels, and was thinking one of the ways we might do it is have a listserve of the principles of all of the panels. And I'd be happy to maintain that on the Northeast Panel's website. And then maybe we can use that to notify each other of things like the webcast, and anything else that you might want to do. And then the principles can decide whether to forward that to their membership or not.

MR. EBERHARDT: I think that's a great idea, especially at the committee level. I'd love to see the committee chairs able to communicate and work amongst themselves. Because I see a lot of overlap with what the committees are doing. This is where a lot of the work gets done.

MS. TREMBLAY: And I have a question also. I'm just wondering, you are a border group as well. What success you've had with getting Canadian representation participation with regard to these meetings?

MR. EBERHARDT: In the time that I've been involved, excellent. The Canadian agencies have been very interested. You saw in my early map that all the Great Lake states, except Lake Michigan, are bordered by Canadian agencies. And not just agencies, but also some of the NGOs in Canada have been interested and involved. It's a layer of complexity that's difficult to deal with. I admit that up front. The operating procedures in Canada can be different, but I've worked with them for many years on the Great Lakes issues and it's really worth it. So by all means with the Northeast Panel, get them involved.

TASK FORCE CO-CHAIR PARKER: Okay. Thank you very much. Thanks for offering us free information. We appreciate that as well. Tina Proctor representing the Western Regional Panel as coordinator will provide us an update in that panel's activities.

WESTERN REGIONAL PANEL REPORT – *Tina Proctor, U.S. Fish and Wildlife Service*

MS. PROCTOR: Western regional Panel update: Basically my update is really just that. I'm not going to go into who we are and what we do and how we're set up, but just some of the things that we're actually getting involved in right now.

One of the things that I mentioned at the last meeting is the database that we've developed with the help of the EPA and USGS. Henry Lee from EPA and Debbie Reusser from USGS has been instrumental in creating this Pacific Coast Estuary Information System (PCEIS). It covers 177 estuaries and 538 subestuaries and tributaries along the west coast. Right now in the system they've got 3,200 benthic invertebrate and fish species. 460 of those are non-indigenous and 301 cryptogenic. They've also included geomorphological and landscape data. So that will be available, they're saying, December 2004. They've got an alpha version ready to go out in probably in the next month or so, and then a beta version probably will come out in the fall. And they will need some testing on that. And then an actual CD of Version 1 will be available to anyone by December 2004. So we're really excited about that. Again, it was a situation we were able to leverage some funds with our money that we gave them, and they were able to hire a student half time for 2004 and 2005 to get this finished and going. And that'll be free, too.

The next project: We're working on a policy resolution. It's in draft form with the Western Governor's Association. The name of it is "Preventing the spread of aquatic invasive species." And it will create an MOU between Western Governors Association, the WRP, and the Western Association of Fish and Wildlife Agencies. And basically the purpose of it is to create an aquatic invasive species working group, and to really make sure there's more coordination in the states developing their ANS management plans, and that there are discussions of where they can get the money to get those plans operational. And then they will report back to the WGA every year. And the point of it is really to get the Western Governor's Association more engaged so that those Governors are more critically involved in this issue. And right now Scott Smith is working on this. And he is working with the staffs of Governor Locke in Washington and Governor Lingle in Hawaii to be the sponsors for this at their meeting in June. So hopefully that will get enough sponsors to get that passed. The resolution is also in your packets, but it's a draft. And I'm sure both of those Governors' staff will have something to say about a draft. So this is just basically a little bit more about what that's going to be about.

Another project we're working on is Canada/U.S. cooperation. And we've got two projects going on that are led by a couple of our Canada members. This is really a good step for us, too. We've had some Canada involvement, but actually had projects that are led by the Canadian members is great. And one of them is in Boundary Bay in British Columbia/Washington, and there is a small partnership to eradicate *Spartina* there. And because it's in Canada, but not in Washington, we wanted to make sure that was eradicated and it's really a neat partnership there, including involvement by Ducks Unlimited and several NGOs and Friends groups. This is a very, very important, bird migration area there.

Another project is to develop a process to involve Canadian and U.S. federal and state and provincial agencies to develop consistent ANS message of border crossings. And again, it's a small project, but it's just a way of developing that process so that we know what to do, who do we contact, you know, what are the rules of all of these agencies, what's a message that's going to work for both countries. Wendy Ralley from Manitoba will be working on that, and we've asked her to work with the other panels that also work with Canada. So we'd really like to see that as a cross-panel project as well. This is something that the Task Force talked about earlier. A database of ANS education/outreach materials has been created by Mark Sytsma at Portland State University. And right now they have 120 education/outreach materials that they have brought together. And we want to have that put on the web posted by Portland State University, so we've given them some money to do that. And hopefully, you know, they'll actually be PDF files and things that you can search for. Because as been mentioned before, we don't want to be doing these things over and over and over again just because we didn't know it was available.

We approved a project for the NOAA funds that we got (\$20,000). And we are also going to be doing a case study based on our model rapid response plan. And that's going to be about the zebra mussels coming into the Columbia River Basin. So that will be our case study to test that model rapid response program. So hopefully, we'll be doing that over the next six months or so. We're proud of that. So our annual WRP meetings are a lot of fun. We've been working together for quite a while now, and I just think they're marvelous. If anyone wants to come to Anchorage – our annual meeting is going to be in September in Anchorage. And we'll be going to the Alaska Native Heritage Center and a trip to see northern pike. And these are the kind of things that we'll be talking about, some very interesting issues. We also will be working on our work plan. And Karen McDowell is one of the co-chairs. She's going to be revitalizing that committee. And we would really, really like to have ANS Task Force staff or member come to our meeting. And I know that the staff is concerned about travel funds, et cetera, but if there's even a member who could represent the Task Force there, it would mean a lot to us. So I'm just going to put that out there.

We also are working on our research list but, you know, I think I've said that for the last three years, I don't know why it seems to be easier for other panels than it is for us, but it's been difficult for our panel to come up with a research list. There's just been a lot of contention over that research list. So hopefully something like that will be available for the fall, too. And I also want to encourage more panel coordination. I appreciate the fact, Mamie, that you consider that really important and, Everett, because we also do and it's very difficult for us to attend each other's meetings. It's just too much traveling but if there's a way that we could continue to have yearly meetings or something along with the Task Force, I really would like that and I like the idea of the listserv. I think that's a great idea. So please join us in Alaska if you have a chance. Any other questions?

MR. WILKINSON: One project involved assessing economic impacts of zebra mussels in the west.

MS. PROCTOR: That's a project that we're funding with David Lodge out of Notre Dame.

MR. WILKINSON: Oh, okay. As a both Fish and Wildlife Service and NOAA Sea Grant supported project.

MS. PROCTOR: Right. Exactly. Thank you for mentioning that. The money was coming from both. Anything else?

AUDIENCE PARTICIPANT: I had heard the National Governor's Organization is also working on revising their invasive species document. Is there any connection between that and the Western Governor's?

MS. PROCTOR: I wasn't aware of that, but thank you for letting me know. I will pass that on to Scott Smith.

TASK FORCE MEMBER RILEY: I just want to make sure there is some connection. Actually the Western Governor's Association has had standing resolutions with regard to invasive species. I think that goes back four years, and they renewed their invasive species resolution at their meeting a little over a year ago.

MS. PROCTOR: Yes, they did. Thank you. And we just want to keep that in front of them all the time, at every meeting, you know. Roger?

MR. EBERHARDT: When do you expect to have the inventory up from Portland State?

MS. PROCTOR: It all depends on Mark Sytsma.

TASK FORCE CO-CHAIR PARKER: Thank you very much, and your comment is noted on panel coordination. We will take that into serious consideration, and we have taken it into serious consideration. Our last panel is the Northeast Panel. And that coordinator Michele Tremblay will give us the final update from our regional panels after which we will hear from Dean. We skipped him on the agenda earlier, but we'll come back to him and he'll be talking to us after Michele is done.

NORTHEAST REGIONAL PANEL REPORT – Michele Tremblay, Natureserve Communications, Northeast Regional Panel Coordinator

MS. TREMBLAY: I'm Michele Tremblay. And I can be, I guess, considered the panel's staff. I'm a contractor. The panel is always trying to look for ways to save money, and now you're looking at it. That's me. Susan Snow-Cotter was with me at a previous meeting, so I was just going to kind of give you an idea of some things we've done in the last six months. But also a little bit of a refresher for those who don't know our area.

It seems like a lot of people get to share New York, and we're one of the lucky ones. And then we go north and east from there. And also we've been talking and it's been a little bit difficult with the provinces of Quebec. That's why I asked the question about Canadian participation. It's been a little bit difficult with Canada, and we've also been looking at Prince Edward Island, province of Newfoundland and Labrador. And I'm pushing pretty hard for these

two provinces, because except for New York, we've had the meetings in all the states so far. And Prince Edward Island is lovely in the fall. So we're looking at expanding so that we can have ever changing places for meetings.

The geographic participation: We do have a long history of working with Canada. The Gulf of Maine Council on Marine Environment wouldn't exist without the provinces of New Brunswick and Nova Scotia. And we have the strong component there. And the Gulf of Maine Council does host us. The panel co-chairs are John McPhedran - he's very hard working and wonderful. He's been really great and was one of our charter co-chairs, along with Susan Snow-Cotter, who has been with us since the beginning and she's housed at the Massachusetts office. And you can see the northeast provinces and the states that we've currently working as well as those we've worked with. Panel mission and goals: We do have a mission statement, and we can thank Sandra Keppner for working us from the very beginning to help us with this part. And we also have to thank Tim because of him we have bylaws that we adopted last week at our panel meeting, so we're now all official and we have some good history and some good documentation for us to operate on. Our membership has been primarily government. We've been working with federal, state, regional, tribal and provincial. We do have a little bit of military, and quite a bit actually, of research and university, as well as non-profit organizations. Private industry has been a little bit challenging for us. Sometimes we'll have an agenda where it makes a lot of sense for them to comment and sometimes it doesn't. And we try to engage them on issue-specific discussions; for instance, if we have something goes on with pet industry, we try to alert Marshall (Meyers) to one of these exotic meeting locales.

Just to give you an idea on our committee, sounds like we're echoing not only the Task Force, but other panels. And just a quick rundown on the chairs - I won't go through all of them. We had a unique situation with our CEO Committee where we had three people apply to chair it. So now we don't just have co-chairs, we have tri-chairs. We've never had a situation where people were fighting to chair a committee before. And in addition to the panel contracting with me to work with them, we also are trying to keep our transboundary caption going. Gretchen Fitzgerald, who works with a non-profit organization in Halifax, Nova Scotia, with Ecology Action Centre is working with us as well.

What have we done lately? This is the important stuff. Since the last Task Force meeting we've been instituting the spotlight on species features of the meeting where we'll bring in a group or a panel of professional presenters. And you can see in the written reports that we had a fresh look at zebra mussels, emerging issues, different management things, as well as a new model that shows a lot of promise.

We have our website and our listserv which I encourage everyone who would like to subscribe to that to wait until I get back to my office on the 31st to do so. We're having a little bit of trouble with our server right now. We have hydrilla watch cards printed in a font size previously unknown to humanity. I don't know how they did it, but they did. And we've been distributing those. And I have lots of them, and so if anybody wants some today, I have a handful of them actually left here. So if you want to lighten my load on the way back to the airport.

The Stop Aquatic Hitchhikers floating key ring: Both this product and the hydrilla cards carry the branding for the Stop Aquatic Hitchhikers. And then a lot of peer-to-peer coordination on state plans. Some states have had good luck with writing theirs. Some are already in the process of revision, such as New York. And those haven't really started yet, so the panel's really been helping with that peer connection. Marineid.org is a really exciting project. I'll talk a little bit more about that one. This is the brainchild of Jay Baker. And I encourage you all to take a look when you get back. But marineid.org doesn't have a lot of population now in its database. And despite the name, we are taking freshwater species as well as marine. It does require downloading a viewer. But once you do that, all of the data is going to be tied in with the maps so you can print your own maps and get your own idea of distribution of species. The floating keyring is always a fun project.

Some plans that we have: Continuing the regional ballast water initiative. Judy Peterson, one of our panel members, convened a workshop in Halifax last October and she's continuing to work with that.

We are following up the rapid response workshop that we had last May at Bar Harbor, with a regional effort with a NOAA fellow that's going to be housed at the Massachusetts office of coastal zone management.

Communication with non-English-speaking communities about ANS. There's a lot of issues in the Merrimac Basin, for instance, where people are bringing in their native species for subsistence fisheries. And that might be a way to

partner, because also there's some contaminant problems - they're doing that in addition to introducing the non-natives.

Pet brochure and subsite: Water chestnut hand pulling brochure. This is to be released probably in the next month or so, and we're going to talk a little bit about that one. The committees themselves, there's two of them that have contracted interns right now that are helping them with a variety of projects, including revising our ANS legislative matrix and developing lists of target species.

And here's what the water chestnut hand-pulling brochure is going to look like most likely. It's targeted to research managers or any kind of volunteers that might be thinking of using this as a management strategy. And the idea behind the subsites is that you don't have to put as much the a brochure. You can carry it over and have a subsite where you can constantly be changing information; for instance, contacts of states and provinces, like change over time, you have this brochure that's out of date if somebody leaves an office or an agency gets reorganized. So this gives up an opportunity to not only have current information, but also emerging information, new ideas on prevention or management. So pretty much every product that we put out now is going to have a subsite.

And then some of the older products we're going to backtrack and have subsites for those as well. And some news: Hydrilla was found in Limerick, Maine. But it was also treated, and we're looking forward to this spring to seeing how that goes. It's a very isolated place, but it is on the border of New Hampshire and the watershed flows in that direction. Clubbed tunicate was found in NSX in Nova Scotia and PEI. And finally the water chestnut involves Massachusetts and New Hampshire. It started in Massachusetts in one of those rare geographical instances flowed north into New Hampshire.

And a very sad story that I heard about last week: In Augusta, Maine a cane toad went from Hawaii to Maine in a snorkel fin. I guess what had happened is someone had gone snorkeling, they decided they were sick of the apparatus and went swimming. And this little cane toad came out. And they thought, oh, isn't that cute and they took a picture of it, and then kept swimming. And I guess it crawled into the snorkel fin and made it back to Augusta. So the person happened to be a biologist and brought it in. I did hear that it is now in a jar somewhere in the state offices. So we can argue about the happy ending. But my first question was, did you sex it? Because my second question was, was it pregnant? Because the person was actually going to release it thinking "I wonder how that got in the house." And then took a look at it and thought that looks just like the picture of that toad I saw in Hawaii. So a near disaster diverted once again from alert people. So that's all we have and want to thank you. If you want to visit our website, the address is: northeastans.org. I'd be happy to speak with the other panels about putting together that list serve for the principles and see if we can use that as a first step. And I'd be happy to maintain that for everyone. Thanks, everyone.

TASK FORCE CO-CHAIR PARKER: Great. Any questions from the council? Yes, Marilyn?

TASK FORCE MEMBER KATZ: Yes. Could you tell us a little bit about what the ballast water initiative is?

MS. TREMBLAY: It was focused primarily on finding suitable ballast water exchange. There's more to it than that, but I think from the October workshop that was held in Nova Scotia, and unfortunately or fortunately I was in Prince Edward Island when it happened so, didn't get to be privy to a lot of the conversations. There are proceedings, by the way, and I can get those for you. There's a link to that licensing grant website. But a lot of the focus was seeing if there are suitable places to do exchange and release and seeing if we can at least start to address the issue in that way.

TASK FORCE MEMBER KATZ: Well, the reason I ask this question is if I'm not incorrect, I believe the Massachusetts State ANS plan said that ballast water was not found to be a major vector at least for the Massachusetts ports - for Boston Harbor in particular. And I was wondering about that, and what kind of ballast water issues there are if, in fact. Ballast water isn't a very major vector.

MS. TREMBLAY: Yeah, Massachusetts probably came to that decision. But this was kind of a northwest Atlantic initiative. The people from as far down as new Jersey came to the workshop, and so I think it had a much broader group. So it might not have been Massachusetts' priority, but a lot of the other states and the provinces who were there I think thought that that might be important for them. You know, I feel like I shouldn't really speak to that too

much because, like I said, I wasn't at the workshop. And I know the proceedings are on the web and I can scan them, but I'd be happy to get you a link to that.

TASK FORCE MEMBER MOORE: I could possibly help a little bit there. Some of the issues with that workshop had to do with identifying areas within the coastal zone; in other words, inside 200 miles. There was the ability under policies for vessels entering the Great Lakes who had not been able to conduct an exchange going across to be able to do an exchange inside that area of the Canadian/U.S. northeast boundary waters. And the oceanographic feature there - there's a kind of an Eddie function. And there was a concern that ballast water exchanged, although salinity-wise may have met the requirements in that area and might have been the source of introductions up into some of those waters. And in stopping that exchange alternative there was a concern that essentially you were maybe raising the risk of introductions into the Great Lakes. But the fact of the matter is the Coast Guard won't allow ballast water to be dispersed into the Great Lakes if not been exchanged. So in having that workshop it was the beginning the genesis of a discussion about how rightly to identify alternate exchange zones within the 200-mile boundary. If that continues, I'd like to actually continue to be on the list. We sent a rep to that meeting. But I think it's going to be important that that discussion continues to evolve to include both NOAA, EPA, the Fish and Wildlife Service, the resource agencies in that discussion. There are jurisdictional issues, as well as some of the issues with respect to designating an area that there's no really good legislative way to do it. And if we do it another way, we have to be really, really careful of assessing the proper ecological and environmental impacts that designate an area. So although that discussion is not yet completed by any stretch, as it continues, it'd be really important to invite some of the federal players to that kind of a regional discussion.

MS. TREMBLAY: Well, I wish Judy and Pederson and Mike Balaban were here to hear that outpouring of passion and what I heard was a willingness to participate. So if you have a moment we can talk about that. I'll get you on the listserve and we'll make sure all of the people are invited and are kept in the loop for communications on that.

TASK FORCE CO-CHAIR PARKER: Okay. Thank you very much. Now, I think what we need to do is everybody stand up and take a stand-up break. [A RECESS WAS TAKEN.]

TASK FORCE CO-CHAIR PARKER: Okay. Thank you very much for being courteous and taking your seats. Next on our agenda, and I'm going to try really hard to finish all of the things that are listed here by the end of the day. It may require us to go just a little bit over, but Dean will give us an overview of the National Invasive Council and Advisory Committee activities, and he's also going to give us an update on the National Aquatic Invasive Species Act.

NATIONAL INVASIVE COUNCIL AND ADVISORY COMMITTEE ACTIVITIES AND AN UPDATE ON THE NATIONAL AQUATIC INVASIVE SPECIES ACT – *Dean Wilkinson, National Invasive Species Council, Department of Commerce Liaison.*

MR. WILKINSON: In terms of the National Invasive Species Council a couple of things to report. As you know, they had some of their Advisory Committee terms expired. The council has forwarded and the Department of Interior officially has forwarded to the White House the new list of members of the Advisory Committee. I can't tell you who has been forwarded to the White House. They may not approve of me doing so, but that process is well underway. We've traditionally done a good job of getting people with aquatic backgrounds on that Advisory Committee. Second, something that we at least touched on this morning which was the cross-cutting budget where various departments and agencies are submitting something to OMB. And in Fiscal Year '04 I mentioned that there was sort of a pilot.

In Fiscal Year '05 we did something, and the reason actually that Al can't be here tomorrow is that OMB is receiving our final report of the Fiscal Year '05. But what we had done in Fiscal Year '04 was something that was sort of broad in three areas. And OMB asked us to focus on specific types of things. And so the Invasive Species Council actually selected ten focal areas whereby there would be more than one agency involved in that focus area. And then we told them, okay, we want you to develop a long-term goal with something that can actually be measured and to add annual things, which also can be measured in some fashion. In Fiscal Year '05 we were roughly half individual species, none of which by the way were aquatic. They were things like emerald ash border, salt cedar,

that type of thing, and five more functional types of things. And on the aquatic side the focal areas for Fiscal Year '05 were two things: ballast water and aquatic area monitoring. Obviously we've got cooperation already occurring among five different agencies, all of whom, with the exception of the Maritime Administration, happen to be members of the Task Force.

For our long-term goal in terms of ballast water demonstration, we really went out on a limb and said, okay, by the end of Calendar Year '08 we will have sponsored at least one technology that meets the standard. And to get there we're going to have to sponsor X number - and I don't remember the number - of research projects per year. The second half of the ballast water included in the cross-cut were obviously NOAA, Fish and Wildlife Service and the Maritime Administration. USGS is coming on board in terms of their Merrill Stone facility in the State of Washington. The second piece of the ballast water thing was something which was also mentioned earlier between the Coast Guard and EPA. And that is the ETV program in terms of how do we evaluate potential ballast water treatment. For Fiscal Year '06 we've started the process. OMB has asked us to retain as much as possible the focal areas from year to year. So one thing may go on, one thing may come off. There are proposals to add two or three additional things. I have not seen anything that says anything is going to come off in terms of a focal area.

A couple of things that the council will be doing this year that I actually want to bring to the attention of the Task Force. And that is, within the next couple of months there should be a draft document in terms of NEPA guidance for federal agencies which are sponsoring projects, paying for things, that type of thing. We're working on it with CEQ, the Council on Environmental Quality. I would like, and something we have done in the past, is as a Task Force we have taken positions on things or suggested changes, even if individual agencies or individual departments have also given their input on something. So that means that, okay, if the Department of Interior submits something on NEPA guidance, maybe they're going to be looking more at the terrestrial side of things. And it's important that the aquatic side of things be represented. And I would propose that, and I am afraid for the non-federal members at this stage it's still pre-decisional, but I would like to have at least the federal members of the Task Force have input into this process as a Task Force.

Secondly, and this one is going to be open to the world, the National Management Plan is due to be updated. If you remember, in January of 2001 the council put out a National Management Plan. It was a pretty good plan. It had some goals I don't think were achievable in the time frames that were laid out. And the council has met and said that was a pretty decent plan. Rather what we should do in this update is focus on things that we think we could and should do over the next three-year period. So we would expect to have a more limited number of specific action items than was in the original plan, which depending on how you counted them, were 57 or 86 or somebody said 124 different action items. And we want to make sure that that really runs along with the Aquatic Nuisance Species Strategic Plan, and what we're looking for in the next three years, from our perspective on things, and wanted to alert you to that.

On reauthorization (of NISA 1996) there actually has been quite a bit of activity recently. And a lot of it has sort of been outside of the public purview, although there have been hearings that were conducted in Hawaii. Tim Keeney testified there. But the individual committees now are looking at what do we need to do before what is really an effective deadline for this Congress, which is probably about July 15th. After July the various appropriations bills receive highest priority within the Congress. On the House side, we have met with the House Transportation and Infrastructure Committee. At one point they said, well, we may have to report only a ballast water type. And that, in fact, would leave out some of the other stuff that was contained in that initial bill as introduced. Since then they have been literally peppering the federal agencies with asking for information on various activities. We had one that said "give us every project you have done since 1991." And we did the best we could to respond to their request in that fashion. They actually have a Sea Grant fellow who is collecting all of this information. They actually went back to the act and looked at things like reports that were due and some of this stuff had been done as long ago as ten years ago when we actually had submitted stuff to the Congress. And they forgot about it.

But we had another opportunity to forward reports that we had done, including something as far back as the Intentional Introductions Report, the San Francisco Bay study which, was done ten years or more ago and some additional studies that we actually completed and they forgot that we had done them. So on the House side, Transportation and Infrastructure is looking at doing something, and they are looking at the whole context of the act. But at least rumor is they may, in fact, only report out a ballast water type. On the Senate side over the last two

weeks - well, maybe I should take it back to February - there was an indication from Senate Commerce Committee that they thought Senate Environment and Public Works, another committee, was not moving the legislation.

And so the federal agencies were contacted by Senate Commerce Committee in February, and said we've got this draft bill. Will you look it over and give us your comments on it? And at that time they indicated that they were seriously considering holding a hearing, and again, it would have been only a ballast water type. Since then the Senate Environment and Public Works Committee got to work and drafted a newer version of the initial bill, which was S525, in terms of looking at what were a lot of comments that they had received from the initial version. Then they asked the federal agencies to come in and look at this draft, make suggestions, that type of thing. And we have sort of until the end of this week - although we had three, two-hour sessions with the committee staff going over, literally line-by-line, a 53-page bill. We've sort of got until the end of this week. They have indicated that they are intending to hold a markup, which is the process by which the committee makes final amendments and reports out the piece of legislation. They have indicated that they would like to hold a markup on June 9th. Now, they've put out this draft fairly widely, and they actually said we could share it.

A couple of things that I would like to bring attention to, particularly since they were brought up in the course of the meeting today, one of which is they have based their ballast water work on the convention. And at least the House side of things does not seem to be in agreement in terms of this standard or the Senate Environment and Public Works Committee. Secondly, they have done a revision to the rapid response section. The rapid response section now makes provision for development of contingency plans. But one of the things that was in the original bill was to develop a fund which could be tapped and somehow that fell out. And so people who are non-feds may want to pay attention to the fact that that provision is not in the draft bill as we have seen it. We're looking, as I said, probably at a July 15th deadline to get things out of committee. Beyond that we move into an appropriations election cycle. So I cannot tell you for sure whether or not we're actually going to get legislation out this year. But there is activity and certainly there is intent there currently. And I'll stop and answer any questions on either of the two things, the council or the status of the legislation.

TASK FORCE MEMBER MOORE: Something I just want to highlight in comparison to where November or was it June 2003 hearing discussions where I have to tell you that both the discussions that federal agencies have had with staffers, as well as the March 2004 ballast water hearing that the Coast Guard had that was ballast water specific that the Coast Guard had I sensed a couple of things that have happened. First of all, there's now a tremendous amount of recognition to the progress that's been made with some of these issues and a better understanding across the board of the understanding of the staffers with respect to the ANS issue. And there's much less - how do I put this delicately - scolding of the federal agencies, because they misunderstand the problem and the process. So I think the education level of the people working the language of the bills has risen enormously, and that's going to really help the process of coming up with better draft legislation. And the dialogue that's going back and forth between the agencies and the drafters of the legislation has improved enormously in my short experience.

The other thing I think I want to point out as a tremendous step forward is NAISA as originally drafted had a concentration or a percent-reduction based standard. That was an unworkable direction, and that is now no longer a part of any of the draft language that's being kicked around that has yet to be introduced. So I think, while there are issues with disagreement in values the numbers actually used in the Senate and House versions, the fact is they've adopted the exact same structure for the standard. And I think the discussion now focuses on what the levels of the numbers are, but we've come to an understanding that in the same way that the International community has understood that as a protective enforceable standard - a concentration based standard for ballast. Our political representatives at the legislative level have also developed that same understanding. That's terrific news. I think the rest can be worked out. I'm optimistic that if it moves forward, it'll be something that's far more useful than NAISA has originally introduced as far as ballast water.

TASK FORCE MEMBER RILEY: Dean, just for some clarification, because I think I got a little confused. What is the likelihood that a bill would emerge that included something other than just ballast water?

MR. WILKINSON: Certainly Senate Environment and Public Works is going to report out a complete bill.

TASK FORCE MEMBER RILEY: Okay. But not the House version?

MR. WILKINSON: I don't know about the House, because they initially they were getting a little antsy, and actually indicated they might only report on the ballast water type. But their requests for information since then have gone much beyond a ballast water type.

MR. EBERHARDT: Dean, did you say that the draft is available?

MR. WILKINSON: Yes, it is. We've got until Friday to get the final comments in.

TASK FORCE CO-CHAIR PARKER: Is it available on the web?

TASK FORCE MEMBER KATZ: No, it's not.

MR. WILKINSON: They told me at the meeting last Thursday that it had gotten out.

TASK FORCE CO-CHAIR PARKER: All right. So does anybody want a copy, and if so, how could we get it to them? -through the executive secretary if there were a request?

MR. WILKINSON: Well, can anybody make real use of it before Friday, I guess, is my question?

MR. EBERHARDT: Well, I was specifically interested in the rapid response fund, and Michigan would like to comment on that, especially when and how.

MR. WILKINSON: You know, what I would probably do is alert particularly Senator Levin that something fell out. And it was his Bill 525 that was initially introduced.

TASK FORCE CO-CHAIR PARKER: And they were okay with sharing it with non-federal organizations, do you think, Dean?

MR. WILKINSON: Yes.

TASK FORCE MEMBER KATZ: Because I was specifically told that the document could not be shared.

MR. WILKINSON: They told me at the meeting that it had gotten out already. They would welcome any input.

TASK FORCE MEMBER KATZ: But also the issue of the rapid response - with the contingency plan having fallen out - EPA recognized that and commented on that. So they will get those comments.

MS. MOORE: Yes, we would like to see a copy of this as soon as it becomes available. And how long will the commentary period be? Have they changed the Senate bill number?

MR. WILKINSON: It's not been introduced. What we were asked to comment on was the draft with the intention of it being introduced. And that would be the bill that would be used for that June 9th markup session.

MS. MOORE: So it would be a different number?

MR. WILKINSON: Yes. It has not been introduced yet.

MR. MEYERS: If you don't feel like sharing it, I'll share it.

MR. WILKINSON: No. I can share it. The problem is the one I brought with me has my individual comments on it, and I'm not sure I want to share that.

TASK FORCE CO-CHAIR PARKER: Any other questions? [No response.] Good. Good job. The next section on our agenda speaks to the 100th Meridian Team and some of the work that they've done in terms of collecting and analyzing recreational goals, movement patterns between water bodies. And David Britton and Bob Pitman will be sharing some of the innovative technology to collect and submit the survey information.

PDA'S AND THE 100TH MERIDIAN INITIATIVE DATABASE – *David Britton, University of Texas at Arlington.*

MR. BRITTON: Hi. I want to thank the Task Force for allowing me to speak today. Again, my name is David Britton. I'm with the University of Texas at Arlington. I work with Bob Pitman. With the 100th Meridian Initiative I take care of the database and the website for them, and have helped them to develop this electronic boater surveys that we're going to talk about today.

Since 1998 the 100th Meridian Initiative has been collecting information from boaters mostly around the 100th Meridian states and west of there. We've been using traditionally these paper forms, and we collect information like, you know, whether their boat is an angling boat or a pleasure boat, what their purpose of transporting their boat is for, is it commercial or personal, where are they from. And some of the important stuff that we've asked them is where else do they take their boats, where have they been and where are they planning to go next with their boat? And so we've been collecting it on this form where all this information is jammed on to a single page. And because of that, boaters are often in a hurry. There are mistakes. Sometimes there are things that are illegible. And all of this information has to be later transferred to electronic format in order to become available on our website in our 100th Meridian Initiative database. We've done that all the way up until now with paper forms. And we've collected data from the states. And Manitoba is there highlighted in yellow. Most of the western United States are participating in the 100th Meridian Initiative with those boater surveys. Obviously there's a big hole there in the southwest region, but we hope to rectify that soon.

Some of the information that we've gotten out of these boater surveys up to now has been sort of helpful. What I'd like to show you here is part of a GIS analysis that I did last summer. In the eastern part of the United States, you know, you all recognize the zebra mussel distribution, and these are yellow dots. These dots over here, they represent the current zebra mussel distribution. But based on surveyed boaters we also were able to evaluate other water bodies that are not yet infested with zebra mussels and determine which of these are maybe likely to get zebra mussels just based on boaters that are traveling from these waters to other waters. And so over here around the 100th Meridian states you'll see a bunch of circles that range in different sizes, and the sizes are listed over here. The size of the circle is relative to the number of boaters who say they have launched recently in zebra mussel infested areas or areas near zebra mussel infested places.

Of course, some of the biggest circles are up here by Fort Randall Dam and Galveston Point Dam where the villagers have just recently been cited. And, of course, the Wichita, Kansas area near Lake Eldorado where zebra mussels have been found. In fact, if you take the information that we got from the boater surveys and get a top ten list just based on raw number of boaters that say they have been in areas that have been infested with zebra mussels, four of these top ten are now areas that are very close to the zebra mussel infested areas. Like, for instance, Lake Eldorado in Kansas, Fort Randall Dam and Lewis and Clark Lake. This is of course in South Dakota and Nebraska's border are very close to these Lakes here, and, of course, Eldorado. The chain of reservoir is also in the Wichita, Kansas area, and Winfield City Lake is also near that area, too. So the information we're getting from the boaters could be useful in identifying areas that might be turning up zebra mussels soon. Again, the traditional form is a little bit cumbersome. And Bob Pitman wanted to find a way to make this more efficient to collect the data more quickly and to get it back up on the website in the database in a very fast manner, such that we could turn this around and not take months to actually get the data into a useful format.

A lot of times the people that would actually take these data down would compile them and let them sit on their desks for months before they get them sent to us at the University of Texas at Arlington. And they might sit there for a month or two before someone actually types them into the database, and it could be a long time before they're actually available. So we want to rectify that situation. And Bob Pitman suggested a way to do that would be to use some sort of electronic form. So he asked me to develop this program for PDAs or pocket PCs. And the form is now consolidated into a small program that has five pages on it that look similar to this. I won't take you through the whole program. But basically it's got fields where people out in the field can enter data into individual fields, and we've tried to incorporate as much as possible drop-down boxes that allows them to just click on the down arrow and click on the selection without having to write anything in. In fact, most of the other pages are mostly

drop-down boxes. And this is supposed to allow the collection of data much more quickly than has been possible in the past.

So the major advantages of using PDAs for data collection, of course, hopefully faster data entry. We're hoping that it will allow fewer ambiguities in illegible entries. Sometimes we get the forms and have no idea what they actually meant by what they wrote on there. The forms would be standardized, because everybody using these PDAs would be using the same program instead of developing their own forms. Some of the states that participate in the 100th Meridian Initiative use their own forms instead of the standard under the 100th Meridian Initiative form. So up to this point not all of the data has been exactly compatible. We try and get what we can out of it. If they were to use the PDAs, everything would be the same. And also it allows for much faster synchronization with the main database, because the data files can be e-mailed to us and immediately imported into the database. So there doesn't have to be any transcription over into an electronic format before we can do that. And, of course, there's no paper copies to collect dust.

The availability of this boater survey is on our website at 100thmeridian.org. It's been developed in Microsoft .net compact framework. And that allows it to be compatible with almost all the PDAs out there. As long as they're using PC2002 or better, it's compatible. Bob has already purchased five PDAs that are already part of our rapid response down near Lake Eldorado in Kansas. There's another one nearby in Oklahoma. And I think he just purchased six more units that are going to be deployed coming up now. Eileen Rice has got her own unit out in Montana. She's been collecting some surveys out there. So it's so far working out pretty well. Again, the file size is only about 40 kilobytes for whole program. Installation is fairly easy as well. All they have to do is connect their PDA to the desktop computer. I recommend updating to Microsoft service at least for what they offer. There's a .net compact framework. That's just the program that's necessary to run the survey program. The most recent versions of the PDAs come with this .net compact framework already installed - if it's a newer version and there only some minor bugs. And then they can download it and install it right from the website. It's pretty much a click the button and go sort of thing. We've got a button here and a picture of the database.

If you click down, it'll ask you if you want to run it from the 100th Meridian website and it will just install on the desktop and then convert over to the PDA and you'll be able to go. And you'll be able to go out in the field and collect data almost immediately. The data that's essentially stored on these PDAs is in a text format, which makes them very easily moved back and forth. They can go through e-mail. And unlike some servers these days that won't allow a .doc or .exe files to transfer or access database files to transfer from one place to the other because of virus problems and whatnot in macros, text format usually goes right through. So that makes it easily transferred from the field or from the people that are collecting the data to us where we have the main database.

Also the data can be stored on removable storage cards or compact flash cards if the PDAs allow it. And that allows the data to be protected. These pocket PCs if the battery is going dead, they can lose data. But if they're stored on the removable storage cards, the data is protected and will be there, regardless of whether the pocket PC works or not. Of course, the text format is easily imported into Excel, so people in the field can write down abbreviations or whatever they want for the water volume or anything else. And later open it up in Excel and do edits to it before they send it to me. And as I've already said, it's easily e-mailed as an attachment and easily added to the 100th Meridian database. So we have very fast turnaround time, relative to the paperwork.

In conclusion, I just want to say that these boater surveys can help us identify areas for focus for not only outreach activities, but areas we might think could have zebra mussel infestations in the future. And we do need additional data. The more data we get, the better we are going to be at identifying where these areas are, particularly from the southwest. I think in the southwest states, there's a big hole there as far as boater surveys are concerned. So if we can get some more data there, we can get a better understanding of how boaters are moving in that area. And again, just as I've said it before, electronic boater surveys can help us do this more efficiently and decrease the time in order to get the data available to the public. Instead of months, it could be done in a matter of minutes. So that's my presentation. I want to thank you for allowing me to discuss that with you today.

TASK FORCE CO-CHAIR PARKER: Thank you very much for doing it in a very succinct manner. Are there any questions? Yes, Mark?

MR. DRYER: I didn't see any circles in North Dakota. Was data collected in North Dakota?

MR. BRITTON: We do have data collected in North Dakota.

MR. DRYER: Well, I was looking at the reservoirs in North Dakota that didn't reflect any efforts compared to the South Dakota reservoirs of showing a large effort from outside sources. And I would think it'd be the same for North Dakota. I would have thought it would be, anyway.

MR. BRITTON: We have a lot of data from North Dakota, as a matter of fact. North Dakota is one of the states that collects and records their data a little differently from the standard. Therefore, their data is more difficult to incorporate into the database, and that's something I'm trying to rectify at this point. So, there might currently appear to be no data for North Dakota, but actually there should be a few little dots up there on the map. I've been meaning to work on this for a long time now in order to get this rectified. The data from North Dakota is actually on my desk right now. We have lots of data from North Dakota to get it into the analysis and when this is done it will give us a more fair evaluation of their state. Thus, North Dakota is one place that's probably not analyzed as fairly as it should have been.

TASK FORCE CO-CHAIR PARKER: Okay. I'm going to move on to our next presenter, Bill Zook. Bill Zook and Steve Phillips of the Pacific States Marine Fisheries Commission will be presenting an overview of a collaborative effort to address potential transport of zebra mussels and other ANS by recreational boaters during the Lewis and Clark bicentennial celebration event. This project is funded by the Fish and Wildlife Service 100th Meridian Initiative, and has many state partners involved.

LEWIS AND CLARK PROJECT: - Preventing Westward Spread through Bicentennial Activities – Bill Zook and Stephen Phillips, Pacific States Marine Fisheries Commission.

MR. ZOOK: Madam Chair, I thank you for allowing us to continue today, because I'm on the 17th day of an 18-day road trip. I'm going to talk to you about and review with you an ongoing program in the Missouri Basin. And it was designed by the participants of the state and federal agencies in Missouri to prevent an inadvertent introduction of zebra mussels in the Missouri River as a result of Lewis and Clark. Participating agencies were state representatives from seven Missouri Basin states, mostly fish and game department employees, federal representatives from the Fish and Wildlife Service, Water Service and Corps of Engineers. And it was coordinated by Stephen Phillips and myself from the Pacific States Marine Fisheries Commission. I just want to put all of the work group members names up there, because this is an effort in eight hours of intense focused discussions and meetings with peers.

In March of 2003 we were able to come up both a prevention strategy and a containment strategy for zebra mussels or other ANS related to Lewis and Clark boaters. I have to really commend this group. I've never worked with a better group and a more focused group. And I want to give them all the credit for development of the plan that I'm going to talk to you about today. We really came up with a six-step program. The first four of those steps are designed for prevention or we call it exclusions in our group. And it's based on a repetitive message of which is that boaters are the most likely to transport zebra mussels and some of the other important aquatic nuisance species. And that boaters need to clean their boat if they're coming from zebra mussel waters and launching it in the Missouri River or any points west. So this is our exclusion strategy. And I'll talk in a little more detail later about each one of these individually.

The first one is national regional publicity. And the idea here was we wanted to use repetitive messaging and get them at their house when they're developing a plan and deciding that they want to do something to commemorate the bicentennial of Lewis and Clark. And so where would you go for information that would help you plan a trip? And so we tried to target those areas so that all those resources that they have available for planning a trip, that they would see the message. And, secondarily, on their way after they've left, if they didn't get the message there, we wanted to get the message to them on the way of billboards, and we actually came up with these low power radio stations that you see all the time - travel information stations that give weather information, road conditions and those kinds of things. We have installed a number of those on major cross country highways around the 100th Meridian and the Missouri Basin, as a result of this project. And if we didn't get them there, then we wanted to get them when we got to the marina at the resort or lodge or wherever they were going to be. So we set about to partner

with as many of the facilities on the Missouri River as we could, marinas primarily, but also key, tackle and bait shops and a couple of the porting operators. These dams don't have locks, and so anybody doing Lewis and Clark on the continuous basin would have to forge over the dam. And we call that the river watch program. We'll talk again about that later. And our last chance to contact was the Missouri boat launch, and we developed a uniform sign for the entire Missouri Basin. So let's talk about them one at a time.

The second part is our containment strategy. First we needed to have a process that would assure that we would be able to identify the introduction to zebra mussels as quickly as possible. We had some monitoring going on, and especially in Lake Sakakawea in North Dakota, but we didn't have it every the reservoir where we thought we could potentially be at risk for getting zebra mussels. So we expanded that to all Missouri River reservoirs. The other thing we needed to do was to develop a rapid response or an emergency response plan in case they did show up, so that we could prevent their movement from one reservoir to another. If they were found in one spot, we could prevent them from getting moved upstream.

For the trip planning stage, we attempted to get into as many of Lewis and Clark websites as we could get on, contact and work with fishing groups and publications. And a lot of this we coordinated through Joe Starinchak. He was already in touch with a lot of these people, so we kind of divided the workload up. State Lewis and Clark coordination offices, state tourism agencies, boat manufacturers and publications and fishing tackle manufacturers. We put out a number of news stories both with the state ANS coordinators in Pacific states and Fish and Wildlife Service. And then we produced a couple PSAs that we distributed to several hundred radio stations throughout the Midwest and the eastern U.S. that were targeted at radio stations that future news or sports or outdoor themes, and had a large listenership. We're only about 40 percent complete on this part of the process, but again, we started only 14 months ago. And we not only developed a strategy, but we started implementing the details immediately. You might recognize these two actors. The guy on the left is the whiny guy that plays on Spin City. It's an old show. He was like the Governor's press secretary, I believe. And the guy on the right played Putty on Seinfeld. Anyway, they did a series of commercials for the original airline Horizon Air in the northwest in the character of Clark and Lewis because, of course Clark's kind of a whiner. And he wanted top billing. Anyway, we developed these PSAs. And they'll not only play on the radio stations as PSAs, but they'll be on our travel information broadcasts as people go across the country.

[Playing of audiotape of commercial.]

Anyway, we thought these would be a little more effective than the typical dry message that you get on those TIS stations. And I think it's more likely to be played as a PSA on radio stations because it has some humor. So the second step, again as we talked about earlier, are these traveler information radio stations. And we have established new stations at these areas. Some of them are just on order and not up and running yet. Also there are a lot of those systems out there, and each of the dams along the Missouri River have them. So there's a lot of opportunity to share our message or to get them our message to play along with their current message. So we're taking advantage of that. We have only or 8 so far, but we'll expand that probably to 25 or 30. And prior to even starting this project, we had funded four other TIS sites in Montana.

So at least 5 new systems will be up and running this year, and that will give us a total of 9 up and operating sometimes by June or July of this year. The River Watch Program: Protect the water resources of the Missouri River and the businesses that depend on them for their livelihood, so it's a natural partnership. After interviewing as many of these people as we could face-to-face, we asked them for ideas about how we could get them to participate, what incentives would they need, and what kinds of programs would work effectively with the business conditions that they face. And many of these people, especially in the upper Missouri River because five years of drought, are barely surviving. So you don't want to push them too hard to have too much of a burden businesswise. So we came up with the following: We would provide these plexiglass countertops or wall-mounted display cases so they could put our brochures in part of it, and then they could use the rest of it to organize all of the rest of the brochures that they always inevitably had laying around all over the place collecting dust. So we helped organize their place a little bit and we get our information up front in a real prominent location in their facility.

Also we had the Zap the Zebra brochure. And then we have the poster that goes with that. And some zebra mussel cubes made up that are edited right on to that poster so it attracts attention to the posters, which attracts attention to the brochures. We have power washing banners saying that zebra mussel power washing available here and Stop

Aquatic Hitchhikers on those as well. And that was to pull people into those areas to get their boats cleaned if they haven't been cleaned previously. And we offered a postage subsidy if they'd include our brochure in their routine mailings. Many of them had preservation confirmations or standing agreements and/ or mailing stuff out to people out into states where zebra mussels were already found. And so we offered them a subsidy if they'd include our brochure in with theirs. And then this is kind of the controversial one, because we don't know if we can really do this or not. We offered them a plaque and an advertisement in their local newspaper and commending them on their conservation.

And a cash award if they stayed with the program for all three years with Lewis and Clark, and did a good job. And we also offered them the plaque to be signed by the President of the United States. And I guess we have a few years before we will have to get this done. But we may call on you guys to help us get that signature on the plaque. I just spent two weeks on Missouri from Fort Peck to Omaha and meeting with these operators, restocking them for this year. We did recruit a few more. There are 54 more possible operators we had active last year, and now we have 27. So half of them are partners, and we consider them outreach satellite facilities for us. On this trip I was real impressed with the ownership of the problem that these guys have taken and they're the local expert and have taken great pride in being knowledgeable about it and go out and check those. And it's really rewarding to see how they've adapted to the program, and that's the reason we've got a few more because they all know each other and they like the program.

This is the display of the poster and the little brochure case that we offered them. And then to our great surprise all of the states on the Missouri River and the federal agencies on the Missouri River readily agreed to a uniform sign with a uniform message throughout the Missouri River. Some agencies didn't have signs, a lot of agencies had multiple signs and a lot of areas were not signed with the ANS signs. And so we went there hoping that we could talk them into a sign, and they readily agreed. And the only thing we had to argue was what the sign was going to look like. And we ended up with two different sizes of yellow plastic, two color, three species are on those.

Each of the signs were printed without the space in the lower right-hand corner and their individual logo and contact information. It's a common and updated message, and all Missouri River access areas will be signed. And that's an increase from just over 100 that were signed prior to this effort to nearly 500 now. And we reserved some funding for regular maintenance and replacement of signs on a three-year basis. We've delivered the signs. And some of the agencies have installed them and some are in the process of installing. This is what the sign looks like. We just tried to take the best of all of the available signs from throughout North America and just took those best features and put them together in one sign that would have some kind of a recognition factor over the entire basin in a broad geographical area.

Containment strategy: We have zebra mussel monitoring, which are just some extended tubes in the water column with some mesh on either end where if there are any zebra mussels, it's a great place for them to attach themselves and find out if they're there. We have some pretty intensive work going on in North Dakota with Fish and Game in Lake Sakakawea, and we needed to expand that to Lewis and Clark, Lake Oahe, Sakakawea. It's something that's coordinated by Portland State University, and they keep the information and identify what's found on those substrates. I think all of the reservoirs will have monitoring sometime in early this summer. Here are the current locations of zebra mussel monitoring.

Emergency response plan: We didn't have time in eight hours (at the meeting) so we dropped probably the most important thing. But we didn't think it was that important at the time and that was to develop this rapid response plan if zebra mussels are found in the Missouri River. All we identified was that it needs to include the following elements: sighting verification, notification procedures, containment strategy, including possible quarantine, permit pre-authorization, and funding. Some of these things we talked about earlier today, treatment options and the coordination procedures. And unfortunately we didn't get that. We just identified that as something that we needed to do next, and then we concentrated on prevention. And as many of you know zebra mussels were found last summer in the Missouri River in the area that we're concerned about. And so I'm sure that the states will be working on some kind of a rapid response plan. There's already a very intense monitoring effort planned for this summer, funded by Fish and Wildlife Service. I want to also say that our funding comes from 100th Meridian through Fish and Wildlife Service, and some from other organizations and Pacific States and Marine Fisheries Commission. We have the blessing and work under the blessing of the 100th Meridian team, and we have the blessing of the western region, and we regularly coordinate and report to them. And that's it.

TASK FORCE CO-CHAIR PARKER: Questions, comments? Yes, I have some from the audience.

MR. MION: My only comment is I applaud Bill and the 10th Meridian group for doing this. To me this is unprecedented coordination. And, you know we've highly integrated a lot of different messages and whatnot. We've got National Marinas Operators Association involved. And this has been amazing. And, like I said, this has been unprecedented coordination, from my experience, but in Congress I think this is a great story. Congress needs to hear this. This is what the taxpayers expect.

TASK FORCE MEMBER ZAJICEK: Yeah, I just wanted to point out that based on the successes of the model in Missouri we've just recently expanded the program to the Columbia Basin. So a lot of the different methods that Bill talked about are starting to get underway in that basin as well, which is important to point out just by some news that some of you may have heard of yet another discovery of live zebra mussels on the Washington border just a couple of weeks ago. So we know that basin is also a priority in this program, and that will be valuable later as well.

AQUATIC INVASIVE SPECIES IN THE SOUTHWEST – Effects on Native Fishes – *John Rinne, U.S. Forest Service.*

TASK FORCE CO-CHAIR PARKER: Good. Okay. Thank you so much very much. Okay. Now I'd like you to pretend you're in the southwest, because they are only one hour time differential, aren't they, so it's one hour earlier there. So visualize the fact that you're in the southwest. And our last presenter is here. And John is a fishery biologist with the U.S. Forest Service. And he will be talking about the effects of aquatic invasive species on the native fish in the southwestern U.S.

TASK FORCE CO-CHAIR PARKER: Well, you don't have to. Okay. Now I would like you to pretend you're in the Southwest, because it is late in the day and the time differential, it's one hour earlier there. So visualize the fact that you're in the Southwest and the day has not been as long as it feels and bear with us for one last presentation. Our last presenter is John Rinne, a research fishery biologist with the U.S. Forest Service. Today, he will be talking about the effects of aquatic invasive species on native fishes in the southwestern U.S.

MR. RINNE: Thank you. Well, because of daylight time we are actually two hours different from Missouri time because Arizona doesn't get into daylight savings. Therefore it's early for me, but I know it's late for all of you. So, we'll go through this 20-minute presentation hopefully in about 15. I appreciate the opportunity to come here and share with you on at such a gathering. First, a little bit about myself. I am a fisheries biologist in the arid southwestern US. Obviously, as soon as I say this, you're going to think, a fisheries biologist, in the Arizona desert, classified based on the lack of water and we're talking about fishes, "What are they doing there?" I've been working with threatened and endangered fishes at the Rocky Mountain Research Station, U. S. Forest Service, for the past too many years - 28. We're stationed in Flagstaff, Arizona. Our headquarters are up here in Fort Collins. And you see it's quite a sizable piece of real estate. Our coverage in the US actually overlaps geographically with the previous talk. And there's the other research stations in the U.S which contains, "what did you say, Glen, 40 fishery research biologists; is that about right?"

AUDIENCE PARTICIPANT (Glen Contreras- National Fish Program Leader, Washington DC): Yeah.

MR. RINNE: So about 40 of us here in the U.S, however, I am the only one working in desert ecosystems. When you talk about threatened endangered species, I have been doing research on these species for a long time. This is really only one side of the coin. That is, you can't really be studying one (native T&E species) without doing parallel study on the other nonnative, invasive fish species. You may choose to call the latter group by multiple names: invasive, nonnative, introduced, nuisance and possibly other designations However, there they're really one in the same, and they all have the same implication as far as conservation and management of our ever-dwindling native fish species. What I'll do today in order to get through is to emphasize the magnitude and impact of invasive fishes in the Southwest. I'm kind of a big picture person and my talk will be more of an overview with some illustrative specifics. I've enjoyed the talks today, however, I will admit their contents have been overwhelming to me.

But I guess being in research and relating to the last talk. I don't think there's anything more important than what you're doing is rapid response management to invasive aquatic species. The thing I heard just about zebra mussel. If we've got a cancer in your body, what do you do? Cut it out! Take care of it. But too often in fisheries biology we wait until this problem "metastasizes" or spreads and gets too large to effectively treat. In parallel to a cancer in a human body, the patient does not survive. That is, when it gets past a certain point, there's really not much we can do about a particular invasive species and the patient or native species (or group of the same) fails to survive. The other two objectives - I'll try to maybe focus down a little bit and move through more quickly about some of the direct removal of aquatic nuisance species, basically the trout because they were a sports species. In the Southwest we have basically a non-salmonid (i.e. suckers and minnows) native fauna. And this is basically what we had initially in our southwestern rivers and streams. We do have three native trout (Apache, Gila, and Rio Grande Cutthroat). Finally, if time allows, I will address briefly our Verde and Gila River native fish research and then finish up briefly with the dollars, cents, and sense of it all.

First, I had my first exposure and somewhat of a problem when we (RMRS) were doing strategic planning within our station a few years ago and we embraced invasive species. Of course, being in the Forest Service it had to be a weed or plant invasive to even be considered. The nearest I could get being in the field of aquatics was, of course, we might consider something that's aquatic. So I brought up the idea that many of our introduced fish species on National Forest lands were, in reality bona fide invasives. Basically I received a lot of blank stares. I continued on stating that there is a lot of work that's been going on in aquatics in the southeast. In the Southern Research Station, Mel Warren is working on mussels and a lot of these invasive fishes. And it's stuff that really hasn't been done properly.

So with that introduction lets step back and look at some pictures here. In the Southwest most of our water falls because of topographic variability on the upper elevations such that we see are on the west slopes of Mount Baldy on the Fort Apache Indian Reservation. This (slide) is the East Fork of the White River where the threatened Apache trout, which is one of our native southwestern trout, resides. In fact, Larry Riley, who is here, is the recovery team leader for this species. And their objective is to in a few years have this species de-listed. But these efforts have been going on for a long time. It requires a lot of effort to get native fishes off federal lists, very few cases are present. Another example, the Gila trout, is endangered as we speak. There's a fire encroaching on one population that resides in one of the recovery streams as we hold this meeting. Already, Arizona Game and Fish Department have removed some of the stock to prevent their loss to post wildfire runoff. Fish removal or salvage in response to wildfire is becoming a common occurrence in the Southwest. I should probably address that briefly right now before I forget it. In the Southwest they think maybe we're in a two- to 3-decade drought. This natural event just serves as just another nail in the coffin of native fish sustainability. We have aquatic invasives and we can do a lot of these things such as we have been discussing here today, but if mother nature comes along with a drought and accompanying wildfire, native fish management becomes even more difficult. Its like the saying which some of you've may have heard, "It's the bottom of the ninth inning and a man who's been hitting nature hard leads two to nothing, but we've got to remember that nature bats last!" I really adhere to that because that's very, very important. We need to do a lot, and you're all doing a lot in this arena based on what I have heard today. However, if a drought occurs or a flood comes up and moves something back into where you just removed all invasives — you are back to square one!

This is what our last southwestern trout, Rio Grande cut throat trout, looks like. Then I'll just kind of move down and we're moving from the upper elevation down along the Mogollon Rim, which is a major fault across Arizona and New Mexico and through the many canyons coming off of it. This is the Salt River Canyon, which once had a remarkable native fish in it. And now it's mainly a small mouth bass, flathead catfish and an assortment of other invasive fishes that have been introduced across the West and Southwest. Cumulatively, in this river and many others in the West and Southwest, these invasives have had a very negative impact on native fishes.

Here is another major Southwestern river, the Gila. It heads in and drains the first Wilderness Area in the US, the Gila Wilderness, and traverses about 4 to 500 kilometers on its way to the Colorado River near the Gulf of Mexico. You don't see a lot of water there, obviously, but that's the way it is a lot of times with southwestern rivers and streams. Here's the Rio Grande north of Albuquerque. By the time the river gets Albuquerque and beyond it passes through a number of dams like most of our southwestern rivers. It, like the rest, has become dramatically altered. Quickly, here are some of the fish you'd see in this Gila River Basin. Here is the threatened spikedace and several

other small - we call them little dickey-fishes. Finally, you've got your larger suckers and minnows here. So that's 6 of the 19 species that are in the Gila River Basin. You're all are probably more familiar with the Grand Canyon and its Colorado River. At one time, of course, the Colorado, meaning the red river, ran wild and not infrequently very muddy during spates and occasionally large floods. Historically, there were these four large-river fishes inhabiting the mainstream Colorado: the pike minnow, which is endangered, the razorback sucker, which is threatened, the bony tailed chub, which is probably one of the most threatened fish in North America. And finally, the humpback chub, which is in the Grand Canyon, but only in the Colorado River where you have the historic conditions of flooding that isn't affected by Lake Powell. Here the population is sustaining itself primarily in the Little Colorado where the population isn't holding on due to the untamed (undimmed) nature of this river.

And finally in the low, low desert the situation for fishes really becomes bleak. Often, the only time that we have water is because there is as you see here, a fault block traversing the channel which forces the water to the surface and provides habitat for native fishes. And you see here what we call "arroyo cutting" in the Southwest. You can see the old of historic Cienga habitat - a dark line across the sheer bank dissecting out the history of the stream. That's probably, what, a five or six meters deep cut? And down in these areas and a lot of these springs, that's where these fish are such as the desert pup fish. This is very small species. Not a long life like the four big river fishes that live for a two to three decades. And then the Gila top minnow, which up to the 1940s and '50s was probably one of the most common fish in the lower Colorado.

But as the late W.L. Minckley who was my mentor and I surveyed many streams with in the Arizona and the Southwest for a lot of years before states: "There is just isn't a lot of diversify out here." One can very likely go out here in Missouri today and seine or electrofish and probably get as many fish on one riffle or certainly in one creek and maybe more than we have in the whole state of Arizona.

So in summary, in the Southwest there's low diversity, but there's a high adaptation by the native fishes. Maybe 25 species in Arizona, 40 in the Southwest, and they're mostly listed as threatened or endangered, in part, due to the presence of invasives. Why is that? Well, these habitats that we've had in the Southwest have been drastically altered largely due to two major categories of impact. The hydrological regimes of many rivers have been changed, and then we've had the massive biological invasion superimposed. The flows in the southwestern desert rivers are highly variable. We go from feast to famine, flood to drought. That's the way they' have functioned for eons. In the ones that still operate that way native fishes do very well. And it's variable among rivers, but then in comes the dams, diversion and the pumping that really has changed southwestern aquatic habitats. Here is the Verde River in 1995 during a flood we had in '95. Here the river is probably 150 to 200 meters across and, 10 to 15 meters deep. That's a lot of water. You see this large cottonwood tree floating down. This is the way these systems were in the past. This is Fossil Creek about the same time. These streams get very, very wild but for a very short time. And then you come here 24, 48 hours later and only see the evidence of it. This stream, I should mention, is just this year is supposed to be restored to a native fish fauna. For 100 years there's be a low-level hydro on there. It's being removed. The Forest Service, Game and Fish Department in a collaborative effort, that these efforts have to be, are attempting to restore the native fish in there.

The primary change came, of course, in 1902 via the Reclamation Act. In 1911 it began in the West and the Southwest. For example, here is the engineering wonder on the Boulder Canyon, Hoover Dam, and that's where the control of the Colorado began. Now it's quite a series of dams. They use superimposed versions, such as you see here. Water is taken out of Gila Cliff Valley near Silver City and southwestern New Mexico for mining, and it can take all the surface flow. We've created artificial rivers. This is a picture of the Coachella Canal. You've probably heard of the Central Arizona Canal. It's the same thing. we' have created these artificial rivers and in comes a lot of these invasive species to survive in them. It's also a transport system for them to distribute themselves to other natural rivers and streams. Here we see one of the largest of diversions, Imperial Dam on the Colorado Rivers, near Yuma. This structure is basically a divider of water that remains in the river to California and Mexico. So there's been a lot of change. This is Roosevelt Dam, completed in 1911 and the first Reclamation Act dam. This map of Arizona shows the dramatic change in aquatic habitats in Arizona resulting from damming. You can see this area of the dam below on the Verde on the Gila. You can see a number of them on the Colorado. So what you have is entrapment of the water as it comes out of the central Arizona Mountains. And you see very quickly that water it impounded and retained behind dams. This one looks at the Gila River, you see that it's been either dry, as we see here or extremely modified. So the hydrologic change is there. Mainstream river kilometers, if you look - remember I mentioned 1911- there you see the start of the change. Very, very quickly it goes up between 1911

through the 1940s and where 75 percent of the mainstream river kilometers or distance has been modified. So we've gone from this wild kind of historic aquatic habitat to one that is more homogenous. It has set the stage for many of these invasive species to enter and survive in. I came across the Missouri on the southeast side of Nebraska on the way to these meetings and they're all up and running, but they're a different type of flood. The river comes up more gradually, go over its banks and onto the river bottoms, much as a commode overflowing. Fishes native to the Midwest are adapted to that. But in the West it seems the more variable and episodic flow regimes are very, very important to native fish sustainability and are a negative impact on invasives.

And then there's sport fishing. Larry (Riley, Arizona Game and Fish Dept) there can be the first one to tell you, if you look at his state agency where the income revenue comes from. But at the same time they're putting a lot of money into things like Apache trout and Gila trout and pupfish. And so we're left in our waters with what has been done through the years. It is not the time to point fingers, we have to move on and do the best we can with what we have in a native/invasive mix over the landscape and move to sustain native fishes. And I think we're doing it. I think we really are. Here you see again sport, catfishes, sunfish and bass. Mosquito control: I showed you the topminnow. It could eat mosquitoes. I think it's still used. And then the red shiner is a bait species. But I think really the problem is perhaps predation on natives by nonnative, invasive species. .

This is a flathead catfish with you will note, a very large mouth. And a lot of these sport fish obviously are predators. And they have done the job on these native fishes wherever they're at over the last century. Between 1890 and 1990 you have almost 100 nonnative fishes introduced into the state of Arizona—or an average of one a year. Here again there are all the reservoirs. The same thing you'd see on the previous river modification slide. You'd see total numbers that were introduced and then about 50 of these have become established in the waters of the state. So, again, now there's four times the original native fauna if we use two dozen natives. And that's probably not that many established, but somebody mentioned the accidental, and this obviously can happen. The discussions today included education of the public. I think it is critical that we start with the school children. I just cannot emphasize that too much. We've had school kids out on the Verde River, and it's amazing their interest. But you've got to get them early, I think. And so out of 200 kids we've had on the Verde River, I'm sure there's a half a dozen of those that are still carrying a torch for native fishes on this river and others in the Southwest.

So really the bottom line, again, as I said earlier, in the Southwest we're in the red zone, or the hot zone like Nevada. That is, 80 percent of our fishes are threatened and endangered species. And in the Southwest – maybe a somewhat lower percentage endangerment (60%). Well, let's say we could wave our magic wand now. For example, imagine we could stick something in the water and we could take care and selectively eliminate all these invasive fishes. We've still got problems and this has been pointed out, I think, by others at this venue. It overwhelms me when I think of ballast water and its potential impact on native faunas. Listening to some of the talks, and hey, in the Southwest, we “ain't” got any problems. bull frogs for instance. I was just standing on a pond in Nebraska a few days ago fishing for bass. I had a bull frog there and I was dangling a red worm. I couldn't get him to leave. They're really aggressive, and unfortunately, as you see, we just don't have any data on them. Again, we need to research, but it should be a part and parcel of obviously monitoring the active on-the-ground programs quick response. That is so important. I've seen stuff go bad over the last 30 years.

Okay, now lets move to the conclusion pretty quickly. So here's three more species of trout. I showed you three natives; now we've got three introduced added. These invasive trout hybridized with the native trout, and also compete with them for food and space also. We have put barriers in as shown here. They were inexpensive back in the '60s - maybe several thousand dollars. Its kind of simple. This is old Apache trout barrier from the 1960s. Now, we've got this same philosophy being transferred to these larger creeks, as we see here. There's some scheduled for larger rivers and, of course, to get a meter of height and we know how they're going do in a large flood - now we're spending millions. So it's not cheap to keep these fish out. But it's one of the alternatives we have, as I'll say a little later.

Quickly, I know the day is not getting any shorter. We've been conducting research on the Verde River, and it's amazing how quick some of the transitions from native to nonnative, invasive species can happen. It has the same native fish in it, and it has the same introduced species. But if we want to talk about this, we've really got to look in the mirror and that probably goes without saying. We brought in all of these non-native, introduced, translocated, invasive, or nuisance species (call them what you may) and fishes and other aquatic invertebrates. So this is the Verde River, but it's an indication of what's going on in the West and Southwest. We had a dozen native species in

the Verde. These are the objects the Game and Fish Department is working to put these back in on the Verde River, also in the Salt River. And this is what we had left. In the last 11 years we've been working there. And then these have gone way downhill.

This is what we've introduced into the Verde, over 24 species. So there's a tremendous impact. Just like we're sitting in the room right now. I don't know how many of us are in this room today - say 50, 60 - what if we bring 50 to 60 more - or what if we bring in four times as many people? Then we've got a problem just because of space alone, not to mention the resources that we've added in here to use. In the Verde River this is what's happened in 11 years. Total fish numbers are down 60 percent. We've changed from a native to invasive or non-native fish nomination from the upper Verde. We have been doing some mechanical removal of invasive fishes, but it doesn't work real well. Here is a slide of the first year after a large flood in '93, over 9,000 individual fish collected. After a large flood seven sites, tremendous numbers of natives existed. You can see we never got above 3,000 individuals in our samples after that. Here we see the non-natives or invasives conversely. They now dominate. This is the present, flat line here in 1997. We haven't seen it since. So it happens very, very quickly. We are also doing predator removal on several sites on the Verde. We've had about a four-year program on the Verde to get rid of some of these, and you can see those numbers. The bars aren't going the right way for the natives despite annually removing the non-natives. There's more fish totally removed. Here you see the kind of gold bars here and you'll see that 160 smallmouth bass were yet removed after 4 years. So after four years we're just getting more of them. And this is smallmouth bass at three sites. You can see they were larger in 1999, now they're smaller. So they're smaller and there are more of them which means more mouths and they're still a problem. Obviously the lack of success is based on a combination of these things. You have to go at it a little bit differently if we're really going to be effective.

I think I can wrap up here in a minute or so with the comparative study where we're looking at the upper Verde and the upper Gila. And we're getting opposing responses on the two rivers. What we're seeing in the upper Gila is a completely native fish fauna. I think it has to do with flows and morphology. We're also right now trying to finish up a book on large river fishes and assemblages. It's between 25 and 30 chapters covering regionally the major rivers in North America. It's just reality that there is not a lot of \$ out there, actually there's a limited amount of dollars and you can only stretch them so far. You need to get it balanced. We need money to address the problems of invasive species, that's obvious. I mean, you can't do anything without it. But I'm not sure that there are not some other factors that may be equally or more important. We have to recognize the complexities in the interactions of management of natives and invasive fishes. As I said previously, say can get the bass and everything other invasive fish removed in the upper Verde. Now we have the crayfish, which we've seen already, are starting to increase. That is, you remove one thing or you tweak one thing, then another thing responds. But this is the key, you've got to work within the intrinsic variables in the water first, where these invasives are 24/7/365. You've got to be right inside there. And then you can move on to watershed. I'm a real proponent of the watershed or landscape/river basin approach to management of invasive species. You've got to do it that way. But start down in the stream with the most obvious, possibly direct factors that may be affecting native fishes.

And let's make sure we get down in the water and take care of that right away. Again, I mentioned working with mother nature. And there's certainly a regionality to the problem. And to finish with this, it's just quite obvious, one cannot mix native and non-native fish species and expect to get a favorable result. It just doesn't work. We have streams and rivers where there maybe 5, 6, or 7 native species exist and we focus. We begin to look at the watershed approach where we can do some good. I think you need success stories. I've heard that here. It's very, very important. If you don't have them, then we are in trouble. Thank you for bearing with me. I appreciate the opportunity to share with you today.

TASK FORCE CO-CHAIR PARKER: Any questions for John from the Task Force members? [No response.] Anyone out there have any questions? [No response.] We want to thank you for your patience to wait this long. And such a dynamic presentation. I do believe that you're right in that we need to find and talk more about success stories, which is something we're going to be working on with Joe when we get back to the office. I want to thank the Task Force for for sticking it out and staying here with us. And we have one more item, I believe, on our list before we can go to our rooms. And we have one person that's signed up for the public comment period this afternoon. And I'm not certain if that person is still here, but if she is, Paula Moore, from Neelyville, Missouri.

PUBLIC COMMENT PERIOD

MS. MOORE (Paula Moore, Fish Farmer, and Member of the Missouri Aquaculture Association.): Listening to this last presentation really puts it all in perspective for me. Now, my first comments that I came up with from the 24th and from this morning is, yes, I thank the Task Force for allowing this meeting to be open to the public, and I ask that you please consider aquaculture industry people for being on these committees. I'd like to note that some of these species came in by accident, some of them were brought in with the agreement of the Fish and Wildlife Service, and they have become agriculturally and aquaculturally important to us as humans. I'd like you to keep that in mind when you put all of this legislation and regulation into work. But this last reminded me - there's nothing that we can do about the most important invasive species, and that is the human beings. They have manipulated, destroyed, changed, and all that we in this room and all of your committees are doing is not putting it back to when the actual state. However much you would like to do that and however much I would like to do that, we are simply remanipulating nature. And nature will have the final at bat. Some day we will be gone and nature will still be here and she'll take care of herself. It's up to us just to not do too much damage so that she has too much work over too long a time to do. So I'd just like you to keep that in mind - that you're not playing God, you're just being humans. And you're just remanipulating nature, hopefully for the better. And keep that with you when you go back to your jobs and do your work. And I don't know about anybody else in here, but whenever I see a horror movie, and especially a monster movie, I always root for the monster. Because we as humans are the most destructive species that has ever been evolved or put, however you want to look at it, on this planet. And what we can do best is just not mess with it any more than we absolutely have to. And if we do mess something up, try to find a positive way to utilize the resources that nature puts in our hands.

TASK FORCE CO-CHAIR PARKER: Thank you very much for those comments. Thank you all for a wonderful day. We will see you in the morning at 8 a.m., and we have a great program scheduled for tomorrow morning. The meeting is adjourned.

[MEETING ADJOURNED AND WILL RECONVENE AT 8 A.M., MARCH 27, 2004.]

DAY TWO - MAY 27, 2004 - THURSDAY

WELCOME – *Mamie Parker, Deputy Assistant Director, Fisheries and Habitat Conservation, U.S. Fish and Wildlife Service*

TASK FORCE CO-CHAIR PARKER: Good morning. Thank you very much for this warm welcome. I know that a number of people will have to leave, including members of the Task Force. And before they leave, I would like to ask them to help me again to thank the Fish and Wildlife Service staff, as well as the Task Force staff that have done a wonderful job in planning this session. As the Co-chair mentioned yesterday, Erin Williams from our California office pulled together this meeting - she came in on a detail. We're very grateful for her help. Kari Duncan, this is her first meeting in her new position as the chief of the branch, and Pam has done a wonderful job. Everett has done great, too, and can you help me celebrate them this morning first thing to say thank you. [Applause.] I didn't mention Don MacLean, but he's also been helping out as well. I want to thank the Task Force members, too, for yesterday. It was a very long day for everyone. And as I looked back and did some reflection I realized that we did do a lot of great things and made some great decisions.

We decided we were going to review and appropriately revise the strategic plan focusing on milestones and performance measures. We realized that we needed to get some committees established and engage them in some of the strategic plan objectives and performance measures. We got some excellent reports from our work groups. They were really clear about what their needs were, excluding the fact that they said send more money. Our regional panel certainly showed us that they are progressing in terms of their relationship and their coordination. They asked us to continue to help them coordinate better and do some cross-coordination among the regional panels. And that's a commitment that we've made. At the end of the day we heard two wonderful presentations that we

considered success stories regarding PDAs, as well as a great one on Lewis and Clark and the activities they have. And that was a good day. And then we ended with a wonderful presentation from the U.S. Forest Service on Southwest Fisheries and so we're really excited about that. We lost a little bit of time yesterday morning. In fact, we lost an hour, therefore, we were here an hour late. So today we're going to ask, if you would, please be courteous and do your presentations and stick within the timeframe.

And I found a watch and I normally don't wear a watch, but I have this today so that we can make sure that sure that we stay on time, otherwise you will be talking to an empty room, because many people will be leaving. I do want to welcome back the Task Force members, and also any new additions to the room. Today we are happy to hear presentations from our host panel, and that's the Mississippi River Panel. We will also have some public comments, but we're going to hear from the Task Force members first, in terms of questions. And then if we have time at the end, we'll hear from the audience. So with that in mind, Jay will serve as the moderator for this session. And it's the Mississippi River Basin Regional presentation. Jay works for the Minnesota Department of Natural Resources, the Division of Fish and Wildlife, and is currently chair of the Mississippi River Basin Regional Panel. Can we welcome Jay one more time? Thank you. [Applause.]

MR. RENDALL: Thank you. This morning we've put together a number of presentations related to the Mississippi River Basin. We have a variety of topics, and I hope you'll find them interesting. The first speaker we have today is Steve Eder. He's right here from the Show-me state. And he was born and raised in Indiana. He attended Purdue University, Michigan State University and Colorado State, and received both his Bachelor of Science and Master's Degrees in fisheries biology. In 1974 he began working as a regional fisheries biologist for the Missouri Department of Conservation. And since then he's also served for the State of Missouri as the fisheries regional supervisor management section, supervisor of fisheries presently with the fisheries division administrator. We asked him to give you some local perspective here, and he'll be our first speaker. .

MISSISSIPPI RIVER BASIN OVERVIEW AND WELCOME – *Steve Eder, Missouri Fisheries Chief*

MR. EDER: Jay, thanks for the intro and good morning to all of you. I decided not to do a PowerPoint type of presentation, because I figured you would all probably have seen a picture of zebra mussels and big head carp and those kinds of things over the past week. Mike Hoff asked me about a month ago to provide some Show-me state perspective about aquatic nuisance species. And because the aquatic nuisance species are listed as one of our top five priorities in our strategic document, I was happy to comply with Mike's request. Well, Missouri has plenty of potential aquatic nuisance species habitat. We manage more than 800 small and large public endowments that total a few hundred thousand acres. We have 500,000 private impoundments in the state, and they average about an acre apiece. So we have half a million acres of private impoundments. Over a hundred thousand miles of streams flow through our state, and we're also blessed with the native biodiversity of two big rivers. Unfortunately that blessing can become a curse, when you sometimes refer to aquatic nuisance species.

In several instances the Missouri and Mississippi Rivers have served as aquatic superhighways for invasive organisms. We're currently dealing with several undesirable critters in Missouri. As most of you probably know, common carp were introduced back in the late 1800s, and periodically we are still renovating some of our small public fishing lakes. And in some of those we find that when we do our three-day counts, at least 50 percent of the biomass is tied up in common carp. So they still are a problem, and they've been around so long that sometimes people discount some of their impacts. But they're still there. And about a century later grass carp were added to the mix, followed by other Asian carp that escaped from commercial aquaculture facilities in the southern United States, and in Missouri also. And, of course, there has been documentation now of wild black carp in the Illinois River and in the Red River in Louisiana in the last two years. And that adds further concerns to us here in Missouri. Zebra mussels have invaded from the north, courtesy of ballast water from the Great Lakes. A major portion of our live bait comes from out-of-state suppliers. And this leaves us vulnerable to contamination via bait bucket releases. We've dealt with European rudd, which resembles golden shiners. Our two most common bait species here in Missouri are fat head minnows and golden shiners. And rusty crayfish were discovered in our bait supply line last year. There's been recent reports of northern snakeheads caught from the wild in the eastern United States, and that emphasizes the potential for serious impacts from aquarium releases. We haven't been affected by those at least at

the present time. Most of you know a lot of them are tropical species, and they cannot handle winter in Missouri. We could probably, if we went on a shopping trip today to some of the pet shops here in Columbia, find a snakehead in a pet shop aquarium. And that is legal under our current regulations under certain conditions.

As far as proactive and reactive strategies we've tried to employ to combat aquatic nuisance species, we have an approved species list in our Missouri Wildlife Code. And basically this means that only listed organisms can be sold as bait in our state, or those on that list can be raised in our conventional commercial outdoor rearing facilities. We allow unlimited commercial and sport fishing harvest on Asian carp. And this isn't to be considered as a population control method, but we're trying to at least send the message that these are fish non-grata. We require importation permits on the salmonids.

And this is aimed primarily to try and prevent whirling disease. We do not have that disease in our state, thankfully, and so we're always trying to be vigilant about other viral and bacterial diseases. And we have a fish pathologist on board who makes those inspections. In one particular instance we established a special conservation area regulation to prevent the spread of zebra mussels. And this has led to negative repercussions on our angling public, because at Honeywell Lake and Fish Hatchery, we no longer allow our anglers to bring in their own boats. And so we have a boat concession there, and they have to rent them from us.

The reason being is we are afraid that we will get contamination with zebra mussel veligers from the nearby Mississippi River with people fishing there and then coming to Honeywell Lake. So with a 200-acre lake that is our hatchery's water supply, we're really forced to discourage angling use in an era when fishing participation and license sales are declining. I don't really find that to be a very desirable situation. We recently developed a fisheries division policy on the zebra mussel containment, and I have a copy of this that I can leave. What we're trying to do is basically set up protocols for our hatchery transfers and stocking runs that we make, plus our management staff's work on contaminated and uncontaminated waters. We don't want to be the cause of spreading aquatic nuisance species ourselves. We've also made formal recommendations about this document, and we wanted to approve as a Missouri Department of Conservation policy that we have several other divisions that obviously work on the water, have boats like our wildlife division and our enforcement personnel. Ron Dent gave a talk yesterday on the aspects of us participating in the aquatic nuisance species communication strategy. And we appreciate the International Association of Fish and Wildlife agencies for funding that. We're one of four pilot states. Ron provided the details, so I'm not going to go into those today. But I will echo Ron's comment that it has given us access to marketing expertise that our agency lacks, and plus we will learn from the ongoing efforts of the other pilot states. And we hope other states will learn from us. So hopefully there will be a good transfer of information. I've already learned quite a bit about things going on and so I'm very hopeful that this will be helpful so I do applaud the international and the U.S. Fish and Wildlife Service for helping get this initiative off the ground.

We do participate in the Missouri River Basin Panel. I don't know how many of you have met Valerie Barco, but she is a resource scientist with our long-term resource monitoring station in southeast Missouri. This has probably been one of the more controversial things for us in dealing with aquatic nuisance species, but we are implementing a conservation commission approved five-year plan to eliminate black carp from our state. And the major strategies included in this basically involve us providing a handful of commercial producers with black carp triploid finger links. We obtain those from Arkansas. They are verified down at Hopper Stephen's fish farm. And then our warm water hatchery supervisor goes down there and double verifies those fish, picks them up and then they're distributed at our cost to the commercial producers who are using those. In the meantime, during this five years we've been charged with trying to find biological substitutes for black carp, and we have been conducting some research.

We have financed a study with the University of Missouri on trying to determine the effectiveness of redear sunfish. What we've discovered was they were very effective for consuming the physa genera of snails, but not the ram's horn snail. The gape of their mouth on a redear is limited. And so we started searching for others. We were aware of some research that's been going on with blue catfish. And we threw those in the mix with some experimental studies that's going on in one of our hatcheries with green sunfish and redear hybrids and reversed the reciprocal across. And we did find that the blue catfish were not really effective, but the green sunfish and redear hybrids were. Both crosses were effective in significantly reducing snails. The big question then that can be posed is, where is the threshold level? Have we reduced it enough to reduce a trematode infestation? And that would take a very long-term study. We don't have time for that in our five-year period. Of course, our commission could extend this deadline and that may be possible.

But we do intend to try to replicate our study in this year and in 2005, which is the final year, and also use larger fingerlings into a second year, because some of our producers don't drain their waters. And so we want to see as the fish get larger and maybe fewer in number, will they, in turn, be as effective as in the first year they were stopped. And I guess in seeing the e-mail traffic on black carp and discovering that they are in the wild, it does get frustrating when you've gone to all of this hard work and it may be for not if they too invade our state and those states south of us. We have formed a transgenic organisms work group. And the Glofish made the media spotlight a few months ago with science's newfound ability to transfer genes from one organism to an unrelated one. And so fish and game agencies will be challenged even more to evaluate potential impacts from this frontier of science. When the Glofish was in the newspapers, I received several calls from reporters asking what does Missouri think about this? Are you going to ban them like what California was going to do? And if you had not reflected on that question, which I hadn't at the time, it was a little difficult to come up with a real good answer for those folks. And then they followed up with, well, who really is responsible for clearing these? And then they relate back to me, well, it appears like no one or almost everyone might have some responsibility here. So this is an interesting situation that's not going to go away, and it's only going to increase.

And finally, we have a Missouri Aquatic Nuisance Species Management Plan in the development stage. I know there are a few states that already have those plans completed, and I think really that'll be great when finally all of our states have those types of plans. I think it'll show that we are purely dedicated to trying to limit this problem. And someone mentioned yesterday that solid economic data is hard to come by in evaluating the impacts on aquatic nuisance species, and I would agree with this observation. But I will point out that the cumulative effect of each aquatic nuisance species issue we deal detracts from other resource management objectives. And in total it takes its toll on our native resources. And this may be a poor or unusual analogy, but bear with me. It's early in the morning, I guess, yet. But I really feel that aquatic nuisance species are the stickpins, our country is the voodoo doll and our aquatic resources are feeling the pain. I'll conclude by emphasizing that within state efforts, it cannot be effective without federal support. And I know there have been issues about state rights and stuff, but, hey, folks, let's not let that get in the way of being practical and using common sense. And I don't really think that should be that much of an issue in this regard. The federal government must serve as the first line of defense. And Missouri supports MICRA's proposal for our nation to develop an aquatic organisms clean list as a major strategy for preventing additional invasions by aquatic nuisance species. I must admit that I have been frustrated on numerous occasions about various aquatic nuisance species situations. And I imagine many of you share the same feeling. Regardless, I remain convinced that if we work together and we stay resolved, that we can significantly reduce the threat of invasives in our country.

Again, thanks for the opportunity to address your group. If there is time for a question or two, I'll be happy to answer them before I leave.

TASK FORCE CO-CHAIR PARKER: We'll start with the Task Force members first. Any questions, comments? [No response.] Can we celebrate him for doing a wonderful job? [Applause.] Before Jay moves forward, I want to remind you all if you have any interest out there in the audience in signing up for public comments, we need the list to be completed by the morning break. And so if you have any public comments that you'd like to give at the end of the meeting, you should have those at the end of the morning break, which will be somewhere around 10:15.

ROUND GOBY – Impacts and Issues – Joe Mion, Ohio Department of Natural Resources

MR. RENDALL: Great. Our next speaker is Joe Mion. Joe has a BS from Michigan State and a master's from Ohio State. He works for the Ohio Division of Wildlife and he supervised the fisheries research unit in the past, and is currently the assistant chief of fisheries. In that role he oversees their ANS. We invited Joe at the very last minute, because one of the other speakers dropped out. So he was very kind to say he would do this. The topic he's going to be talking about are the round gobies and their impacts that have been found in Lake Erie. We had a similar presentation at our January panel meeting. We found it very interesting and thought it was the type of thing that the Task Force would hopefully find would be interesting and valuable as well. So, Joe, I'll let you take over.

MR. MION: Thank you, Jay. I certainly appreciate the opportunity to address the Task Force this morning. Most of you probably know my boss, Gary Isabel. He's been very active in the ANS and fisheries for over a decade. And he certainly continued that with ANS issues. But today rather than sort of discuss sort of the broad spectrum of ANS issues in Ohio, I really wanted to focus on sort of a specific example and give a little more insight into a real world management problem and how the management process operates to deal with this problem. Unfortunately I can't say solve the problem, but this is the way that we've approached problem identification, assessment and tried to enact some regulatory solution to it. And as you can see by the title, this isn't necessarily a happy story, but it's one that, you know, we hope to see some positive outcomes from. But I am going to be talking about the smallmouth bass fishery in Lake Erie, and the impacts that the introduction of round gobies have had on it. It's the best smallmouth bass fishery in the country. And why is that? Because you couldn't design a better place for smallmouth bass. And this makes it a very highly popular tournament and vacation destination with national, regional, state tournaments. It's like I said, a very popular vacation destination, and it also supports a very large charter of the stream. All this sums up to being it has great economic and social importance. So in short, I mean, this is an extremely important resource for us, and one that we manage very carefully.

But beginning in the mid to late '90s we began to see some trends in the fishery that were a little troubling. We have actually seen a fairly pronounced decrease in angling success, both for the charter industry, tournaments and for private anglers. Now, you might look at this as saying, well, this is a highly exploited - highly pressured fishery, but actually during the same period of time we've actually seen some decrease in fishing efforts, both tournaments, charter and private industry. Population metrics have sort of been bearing this out. Our population indices have suggested that we have seen some degrees in abundance, and even more troubling a fairly large decrease in recruitment for reproductive success. So, you know, we have to ask ourselves, you know, do these trends represent the short-term variability in the population or is some real change going on? And this is a real important question in Lake Erie, because Lake Erie is an extremely physically and biologically dynamic. It's been perturbations from nutrient inputs, development around the lake, lots of fish community changes over the recent decades.

So a lot of things are changing since basically European settlement in Lake Erie. Were there any major perturbations that might have some explanatory value for the fishery? Well, as it happens, yes. Round gobies, which were introduced into probably in Lake St. Clair in the early '90s. We were concerned about them, so we began monitoring for round gobies in 1996. And as you can see, that graph shows the depth per density, and we literally went in 1996 and '97 to almost none to a fairly dense population almost literally overnight. And basically what happened is western Lake Erie also happens to be a great place for round gobies. And once they got there, they found it to their liking and they've done extremely well. And we've seen abundances as high as 30 per square meter. Now, round gobies feed on eggs and small fish, macroinvertebrates and things like that. So there is some concern that they could be doing harm to smallmouth bass production. Assuming most people aren't familiar with round gobies, it's basically the same old story. You know, we know how they've gotten here and you know the rest of that. So basically what this was is some impetus to move forward on some studies that we were already planning to get a better handle on mechanisms driving smallmouth bass reproduction in Lake Erie. We engaged an aquatic ecology lab, which is a program we fund at Ohio State basically to do a mechanistic ecological process on management problems. And the work that I'll be showing you was actually done by Jeff Stinehart for his Ph.D. dissertation. He's currently a post-doc at Purdue. This is the most incredible dissertation you'll ever see. He did a tremendous amount of high-quality work. He's gotten two publications out so far and he probably has eight more to do. Jeff did a tremendous job with this.

So basically what we wanted to really focus on was factors controlling smallmouth reproduction in Lake Erie, and take a multi-faceted mechanistic approach to that, which did in some part focus on the gobies reproduction. And from that to get a better sense of the management options that we could draw from this. . Most of this research was done at a complex called the Bass Islands. They're not called the Bass Islands for nothing. This is a complex of islands in western Lake Erie with large and small. They're very regularly shaped. A lot of protected bays facing all different directions, which is important. But this is where the majority of smallmouth bass spawning takes place in Lake Erie. So for those of you who aren't fish geeks like me, just a word about fish reproduction smallmouth ontogeny, basically smallmouth bass lay eggs in a nest on the substrate, which is then guarded by the male. The eggs hatch out into embryos, which stay on the substrate and do not swim up. And then as they develop, they become free-swimming larvae at which point the male stops guarding them. And here's a picture of a male smallmouth bass in Lake Erie, and you can see the dots that are outlined there, that's a nest. Those are eggs. They adhere to the substrate, and the male protects them and also fans them to keep them well oxygenated and keeps them

from getting covered up by silt and so on. The male is still guarding them but the embryos are laying down in the substrate as they feed on their yolk preserves and continue to develop. And then, finally, it's hard to see, but all of these little black dots are the free-swimming larvae. They're swimming up from the nest, and this is about the point where the male will say, kids, you're on your own.

So I won't get into the details of the full spectrum of research, but there were a lot of experiments that were focused on experimental removals of smallmouth bass to assess what kind of predatory gauntlet that the nests were facing, especially from round gobies. So literally they would be identified all around the islands. With scuba gear they would angle the fish out of the nest, and their cameras set up on the nests and also observe to report what was happening. And the angling component is important, because we wanted to get a sense of what fishing impacts were. How long it takes to remove a fish; remove and keep the male from the nest for different periods of time, how much nestability there is among males, how many times you can you harass a fish before it leaves? All of these were important components of the story.

So basically to cut to the chase the top graph shows the number of round gobies entering the nest over time after a male has moved. The bottom graph shows the number of eggs consumed over time by those gobies. And basically there's an average of about twenty gobies within five minutes that have entered the nest and begun feeding. And again, on the bottom you can see over time they're eating thousands of eggs in minutes. The average smallmouth bass nest contains about 4,500 to 5,000 eggs. The nest can be decimated by round gobies in a fairly short period of time.

Because a picture can be worth lots and lots of words, I have a short clip I want to show you. What you're looking at here is actual film from Lake Erie. And this is a smallmouth nest. You can see the eggs on the bottom the white dots. And actually hopefully you can see there's round gobies in the nest right now, and can see them actually feeding. There are several gobies in the frame and this is right after the male is removed. They're in there. They're eating the eggs. I mean, just that quickly you can see them gulping away the eggs. And this is actually in Lake Erie. This is not experimental. So that's what's going on? So again, you might ask yourself, well, isn't this a fairly common situation that these fish face? I mean, why be involved in this guarding behavior in the first place if they don't face these predatory gauntlets? Well, we asked that question also. And because basically gobies are ubiquitous in Lake Erie now, it's hard to control and assess in the absence of Lake Erie. So we did a similar experiment up in Lake Opeongo in Ontario. This is a controlled research lake by the ministry of natural resources where they do smallmouth bass research. And basically we replicated these types of male-guarding removal experiments, to see in the absence in sort of a more natural setting that smallmouth bass evolved in what kind of predation are they looking at. And literally in 24 replications of this experiment in Lake Opeongo the first predator arrived, and I believe that was a crayfish. In this whole battery of 24 replicates only three predators overall ever showed up to feed on the eggs literally. So compare this to literally 10, 15, 20 gobies in a nest almost instantly in Lake Erie, and that gives you some idea of what gobies represent as to the alteration of the predatory gauntlet of the smallmouth bass.

So basically some key findings of this research also were basically that May and June are very important nesting periods in Lake Erie. That actually male smallmouth bass do a fairly good job of protecting the nest, even in the face of the high goby densities. But when they're removed, gobies enter and feed very quickly. And also this goes to other facets of the study. Climatic events are extremely important to driving the success. But that angling, and remember this is a very popular fishery and there's a lot of spring fishing pressure. Angling really acts to moderate the sort of perspective and respective impacts on that success. And it just so happens that angling is the one that we can control. Another issue is some other studies we have going on is we have a long-term tagging and monitoring of movement and stock differentiation of smallmouth bass in Lake Erie. And basically what we found over time is that there are very site specific stocks. There's a lot of spawning fidelity among smallmouth bass. And that they don't move much around the way. Nesting failures in any particular area can devastate local populations, because there's not a lot of interbasin movement among these locales. So basically, you know, if each of these areas get picked off even if good reproduction occurs elsewhere, you may be losing local populations.

So basically what have we done? Well, beginning this year we took a fairly drastic step of closing the fishery during May and June, and closing it to possession. You know, basically the goal of this is to increase nest success and ultimately recruitment success. You know, minimizing fishing pressures and eliminate harvest and eliminate translocation and ultimately minimizing abandonment. Again, males do a good job of protecting the nest if they're allowed to stay there. Now, this may seem very simple. But, again, keep in mind that this meant running out

national tournaments that were occurring during this time. This is basically a big time that the whole industry largely relies on. This was not done without some major political considerations and basically there was a lot of pressure against this. But basically we felt this was the only right thing to do for the resource. And the Chambers of Commerce and other associations helped in the process. A lot of people ask, well, does it really make a difference? Well, we feel that it will because this is actually the proportion of the annual proportion of harvest occurs just in May and June. And as you can see that in most years more than 50 percent and as high of 75 percent of the total harvest of smallmouth bass occurs during May and June, which happens to be the peak high spawn. And those also happen to be our high tournament months also. So that's what we've done. That's sort of some insight into, you know, a real-world way that we've addressed the presence of these species. But, you know, it's too soon to say whether or not, I mean, this regulation will have the intended effect or, you know, will we have to look at further measures and, you know, more importantly, you know what, about the next species and the next species and what do those represent to the system. So, you know, we'll have to stay tuned for that.

You know, here we are in Missouri ostensibly focusing on middle continent issues, the Mississippi River Basin, so why are we talking about Ohio's Great Lakes issues today? Well, partly because we have a large footprint both in the Great Lakes watershed and in the Mississippi River Basin. We have about 500 miles of Ohio River, you know, bordered over 200 miles with the Great Lakes. So we're stuck right between them. And the interesting thing about Ohio is that was taken advantage of in the 19th century, and Ohio was heavily canalized. There's a large network of rivers, feeder reservoirs, canals that were specifically intended to connect Lake Erie to the Ohio River. And we also have a very high human population. So the bottom line is we are very concerned about the probability of interbasin movement both across Ohio. We have Asian carp moving up the Ohio River and great gobies that we wouldn't want to see in the Mississippi River Basin. So these are big concerns, that are sort of paramount in our ANS perspective right now.

So what does that all mean? Well, it's the same old story. Ideally prevention would have been the key for not letting these animals in in the first place just because of ballast water management or screening processes. And we've been thrilled, you know, with the outcomes of the IMO and the work that has been done on that and, you know, to start to see some progress there. Because, you know, obviously we're the ones ultimately that this issue falls most heavily upon. Similarly, you know, coordination is extremely important among states, among panels and federal agencies, state agencies to help prevent, you know, these sorts of regional issues from becoming national ones. And, you know, again, more closely aligned to what we do, you know, it's very difficult to directly manage most of these animals once they become established. The best we can typically hope to do is mitigate the impacts that they affect in on our systems, and that, you know. And just as importantly these mitigations usually come with major costs and tradeoffs, certainly the economics for Ohio for our lakeshore industry in this particular instance. Thank you very much for your attention and for the opportunity. I'd be happy to answer any questions that you have in the time we have left. Thank you.

TASK FORCE MEMBER KATZ: Yes. How difficult was it to present this scientific information and have it be accepted as the rationale for your management decision? In other words, how difficult was it to convince state political interests? I'm just curious.

MR. MION: To be honest, that's a generality for any issue that may have economic or social impacts. For any regulation like this, we have a gubernatorial appointed commission that has to approve it. And there is also a legislative body that has to approve any department issued regulations. So there's a formal process, but I think what you're eluding to is more of the informal process, which is substantial, because there was a fairly strong lobbying against doing this. And basically it took a lot of time, a lot of persistence and it's partly sort of knowing who you're dealing with and how to sort of crack the message, which pieces might be most effective in dealing with other offices. But it is a challenge. It's always a challenge to translate, you know, scientific information into policy.

MR. PITMAN: Yes, I'm Bob Pitman from Fish and Wildlife Services. I'm very curious. Do you have any idea how many of the anglers are using round gobies as bait and is it a legal bait?

MR. MION: Absolutely. Possession of round gobies has been illegal in Ohio, I believe since 1997 is when they enacted it. You bring up a good point. This is sort of an ecological issue, but it's also one that is important to anglers is the smallmouth bass love to eat these things, so they do get a little payback on gobies. And that was figured out fairly quickly. And so, yes, we've had issues with some transfers into the near shore lakes. Possession

of live gobies is illegal in Ohio in any context. Our bait industry, because Lake Erie supports a fairly large bait industry, golden shiners are collected primarily, and we've had some concerns. We've been working with them in the uptake and spread of round gobies there. But basically that's not too big of an issue now. I mean, we moved fairly quickly to address that.

TASK FORCE MEMBER ZAJICEK: Joe, I was wondering that prior to the formation of the Mississippi River Basin Panel, was there any means for interbasin communication amongst the states about ANS?

MR. MION: I mean, through normal channels, for instance, this is a body that we get together with the other Ohio River states on to deal with the fishery issues of which ANS has been, you know, certainly one. That body has been in existence since 1986 or 1990.

TASK FORCE MEMBER ZAJICEK: How do you view the panel? Do you think it is an addition?

MR. MION: We've had subbasin units, but they're, you know, certainly if you're getting at whether or not this is redundant, is that sort of what's underlying?

TASK FORCE MEMBER ZAJICEK: Well, I don't know if anything existed in advance or prior, and whether you as an agency would view it as an improvement, such that you would investigate the time and effort and resources to participate in the panel?

MR. MION: Yes, we will. And this is a large and complex enough issue that ANS really does warrant sort of being separated out from other fishery issues, which certainly are large and complex enough to warrant specific attention. So to have this separate body that focuses specifically on ANS, and especially issues of interbasin movement which are extremely important and to coordinate even through using that panel mechanism to coordinate nationally with the other panels, that's also extremely important.

AUDIENCE PARTICIPANT: How well could the gobies be tracked? I mean, can you catch them in a minnow trap?

MR. MION: There is no effective way of trapping the gobies. We have a lot of difficulty even quantitatively assessing them. You have to understand that those islands were left behind by the glaciers and there is a lot of subsurficery. The whole area is basically pockmarked with these humps that don't extend to the surface. And basically these are steep-sided cobbles, and there's almost no way to even sample these in relatively large numbers. And that's something what we struggle with even just assessing.

MS. MOORE: So they don't trap?

MR. MION: They don't trap very effectively, no. The best way to catch them is to go perch fishing. They're quite a nuisance.

MR. McMAHON: Bob McMahon, University of Texas. The Western Basin of Lake Erie is really heavily infected with zebra mussels. Have they had any impacts that you've been able to determine?

MR. MION: The zebra mussel specifically?

MR. McMAHON: The zebra mussel, yeah.

MR. MION: I wouldn't want to hazard a guess on that at the risk of not completely being anti-ANS. There are issues which are still not resolved about how zebra mussels have, you know, both physically changed the environment and given more substrate complexity, and whether or not this has benefitted fish spawning or fish reproduction in terms of eggs, both walleye, perch and smallmouth. But I certainly couldn't hazard a guess as to say specifically have there been any benefits. Right now we're dealing with the implications of zebra mussels maybe have promoted the outbreaks of botulism and transfer of botulism up the food chain in Lake Erie. All right. Thank you very much.

MR. RENDALL: Well, Joe did a great job on that. Every time I see that, I think it is a tremendous example of the problems of ANS, some that are directly linked right to the citizens. Often it's hard for us to translate the problems that these species can cause, but this one is pretty evident that it's direct and can affect them, whether or not they're going to be able to go fishing. So I just wanted to restate it. And this is a good example of why the ballast water regulations and dispersal barriers are critical even to the center of the country.

MR. RENDALL: Here we are right in the middle of the country and these gobies, in case you're not aware, they're headed down from the Illinois River into the Mississippi Basin, because the dispersal barrier was not installed prior to them getting to that point. And so it's critical for us to have these federal efforts even to deal with the middle of the country.

We'll move on to our next speaker, Jerry Rasmussen, who was born and raised in Iowa. Jerry received his bachelor of science degree in fish and wildlife biology from Iowa State University and his master of science degree in fishery science from Colorado State University. Jerry's worked for a whole variety of different entities the Tennessee Fish and Conservation Commission and the Midwest Research Institute and on and on in the Fish and Wildlife Service. And is currently the coordinator for the large river activities for MICRA, and is also the coordinator for the Mississippi River Basin Panel. Jerry is going to talk, as the slide says, about the aquatic nuisance species in the Mississippi River Basin and the diversity of problems that we have. Welcome Jerry up here.

MISSISSIPPI RIVER BASIN PANEL SURVEY OF PRIORITY AQUATIC NUISANCE SPECIES – *Jerry Rasmussen, U.S. Fish and Wildlife Service*

MR. RASMUSSEN: Again, it's a pleasure to be here this morning for the opportunity to tell you some things about the ANS in the basin. And I might just follow up on Paul's question to Joe about state involvement and the importance of the panel. As coordinator MICRA for about ten years, as with any organization, you have active and inactive states. And one of the things that I noticed with the formation of the panel is many of our inactive states have become active. And I think that's a reflection of the importance of the issue, the importance of the panel and of the Task Force. This morning I'm going to talk to you using kind of an overview of the ANS problem in the basin, based on a survey that MICRA did before the panel was formed, and then right after the panel was formed. First of all, look at the basics. We have the largest watershed in the country that we're dealing with here in parts of 32 states. You don't often think of Maryland, South Carolina, New Mexico being in the basin, but small portions are. And so we've been in touch with those folks and try to get involved. We certainly need to have everybody involved in this thing, because as you can see, we have quite a network of pathways here to spread ANS all the way from Appalachia down to the frozen tundra by Green Bay and the Gulf of Mexico. So it's a very diverse system.

As I've said, MICRA did a survey about four years ago as part of our Aquatic Nuisance Species Committee. And they identified some 149 ANS species as problematic. Kind of to get them to focus right about a year ago we sent out another mailing and asked them to give us your list of what we defined as the most troublesome. What are the ones that are giving you the most problems now, and which ones do you anticipate giving you the most problems should they become present in your states? And they came up with 18 plants, 3 microorganisms, 4 crustaceans, 5 mussels, 14 fish and 1 mammal. And I'll just go through them. What are the sources of these critters? Well, most of them come from Asia and Europe through trade routes. But right there at a close third is interbasin transfer within the country. And it gets back to some of Joe's comments and Steve's comments about these canals and the connections that we have. And then, of course, from lots of parts of the other world. How do they get here? Interestingly, eight of them are unknown coming in in people's suitcases or other ways, I guess. Fish culture is a big one, barge and ship movements, ballast water, canals. The gardening industry is becoming more and more of a problem with the plant transfers through the mail and what have you. And then a whole list down here of other mechanisms and, of course, spear trade being one of them.

Troublesome plants: There they are in parentheses here is the number of states reporting these critters as problems. Topping the list: Eurasian watermilfoil and purple loosestrife. The interesting one here is the western salt cedar with some of the main stem reservoirs. And then a whole list that primarily occur in the south - plants being able to winter better in the warmer climates in the south. Just to give you a little picture of what they look like in the field,

here's water milfoil plugging up a lake there. The purple loosestrife - it's a mess in the marshes. Hydrilla, of course, is a big problem, and then several species of Salvinia we kind of lump together.

The microorganism that causes whirling disease is primarily a problem in the west and the south when it gets into the skeletal structure and the fish swims in circles. The yellow perch parasite recently showed up in the Wisconsin area of the basin, and then the carp spring viremia brought in by the coil industry I think initially showed up in North Carolina and now appears in Wisconsin and other areas. Some of it's to just the carp so maybe we've got a control mechanism here for some of our carp problems. But beyond that, they'll infect northern pike, some of the sunfish and other critters, which is the case that most diseases. What they can do between species and so they really aren't an effective control. Crustaceans, the spiny water flea, fish hook water flea ballast water sources coming to us through the canal. Primarily they're in Chicago. Rusty crayfish and swamp crayfish, and then five mollusks. And zebra mussel topping our list recently showed up near the Missouri River Basin, and there's concern about that moving into the reservoirs now.

Quagga mussel: it will find its way around and it's been around for some time. An interesting one down here down the Tennessee River, they're having trouble with the southern maple leaf mussel, actually a native and interbasin transfer business that creates havoc. And then I think you had a talk on the New Zealand mudsnail. This apparently is a real problem for passing rights. It will likely spread on into the basin as the time goes on. But getting to the real issue here, I think for most of us - zebra mussel and Asian carp are our two primary concerns here.

Looking at these fish topping the list here are five species of Asians. The common carp often thought, as Steve said, isn't a native anymore. It was brought over here in the 1800s from Europe. It's been a problem for over 100 years. You would think with the history of that thing that there would have been some thought given before we brought all of these into the basin into the country. You wonder what happened there. And we're going to see these critters for the rest of our lifetime in growing numbers, I'm afraid. And, of course, the round goby coming in there as a concern, white perch, ruffe and a number over here. But the primary problem there with the fish are the Asians. These are all big. There's a big head carp over 50 pounds. Silver carp is the jumper you would have seen most of on the Missouri River, if you had been able to take the field trip.

The black carp just came in using control. There have been two appearances in the wild, one at the mouth of the Missouri and the Ohio River, and the grass carp probably show up at almost every golf course pond in the country. I think it's over 45 states now use it for vegetation control, but when it runs out of vegetation, unfortunately it turns to other food invertebrates and what have you. And then, of course, the nutria brought in from South America by the fur trade and wreaking havoc with the coastal marshes. Looking at these from a slightly different perspective MICRA has broken them into six units largely along the lines of the upper Mississippi River in existence for over 50 years. But the upper Missouri River, the Arkansas Red, lower Mississippi, Ohio River and Tennessee River is kind of the way we've broken them down, and the panel is following along those same lines. So looking at the distribution here from a subbasin perspective, again, lower Mississippi and Arkansas Red River have the biggest problem with aquatic plants and given that's because of the warmer climates and tropics. Purple loosestrife, the Eurasian watermilfoil having and followed by the curly leaf pond weed in five subdivisions. Looking at the others, it seems that the microorganism problem is working on to some northern regions in the upper Mississippi and the upper Missouri whether the lower subbasins are in denial or they weren't reported down there.

Invertebrates: The rusty crayfish and spiny water flea in five subbasins, and then the zebra mussels down here and the Asian clam in all six. Looking at the fish again here topping the list in all six subbasins are your five species of Asian carp. So that really is one of our primary concerns with the basin panel is how are we going to address the Asian carp problem? And I'll just touch a little bit on some of that. Looking at these guys and how large they are from the White River in Indiana, the Ohio River in Ohio/Indiana, Barkley Reservoir in Tennessee, these are all in excess of 50 pounds, Cumberland river in Tennessee. You probably can't read the title, but this one was 73 pounds. And then the biggest of all 90 pounds out of Lake Kerby, Texas. And they're all over the place and they're huge. In looking at their distribution, this primarily says Asian carp, but it's also silver carp distribution taken off some of Florida's data. I just drew these. This is a close approximation. These guys are occurring upstream as far as they can go. It seems the only thing that stops them is a high dam. Gavin's high dam has gone up into the big zoo in James Lake of the Ozarks kind of stopping them there. They have been able to pass through locks and dams. We've got locks and dams here at St. Louis, and they've gone through four or five of them up to Iowa. The Des Moines River is packed full of them up to Red Rock Dam. They're wicket dams that fall down through, and they move right

through. So it's been a pretty easy passage. They're all the way down here in the Tennessee River. Two of them right up here taken by commercial fishermen in Lake Pepin and Pool 4 and Pool 9 in Wisconsin. Whether those were lucky and swam through all of those locks in a hurry or they got there through another means, is a question.

There is this matter of people of Asian ethnic background who are the primary buyers to release. One could have been the cause of those. The Twin Cities sits right here, and there's a large Asian population in La Crosse. Those two probably got there by that means. But I live here in the Quad Cities, and we're looking out for them in Pool 16 and just hate to see them come. I mean, it's going to be a big problem. We have a tremendous refuge up there. A lot of the water contact sports, water skiing and whatnot. And in the video I'm going to show you in a few minutes you're going to see why that is going to be a big issue here before long. Where are these critters going to go? How far north are they going to go? I think we have to look at their temperature preference to understand that. I took that off the internet fishbase.org. The dotted line here in the middle is just a break in the graph, where I believe if you look at the big head and silver carp falls way down here into the Great Lakes ecosystem. Looks like it could be prime time for those guys to get in there. And I think that is something that the Task Force has to be thinking about, looking at where they come from in Asia and drawing lines across the world there. The silver carp is one that really sticks out to me. The southern limit of its range is right about Chicago, and it could go all the way to Hudson Bay, as could the big head if it finds a waterway connection, which it likely will.

Most of our natives are hunkered down and dormant for the winter. They're very active, and the ovaries just packed full of millions of eggs – a tremendous reproductive potential. And this is one some of you got in an e-mail. And I wanted to read it to you. It's a weird picture that's really, really disturbing. This is a 26 pounder that I caught and some of these fish are probably larger than this. This came in from Illinois DNR from Cathy Higdon. And it says, for the past two days the silver and bighead carp have been jumping just below the powerhouse on the downstream side of the dam. It is the most awesome sight I've ever seen. It looks like something from outer space. These are huge fish jumping six, eight feet out of the water one, two, and three at a time. It was just incredible. You don't even need binoculars. Just think what they can do to the ecosystem of the river and also to the recreational boaters.

And where is that at? It's right here. Starved Rock Dam 1 of our great national treasures. In 2001 during the goby roundup, I collected the first big carp, one dead fish floating in the water. In 2002 we set nets and I caught the 26 pounder that I showed you in the previous slide, along with others. Last winter they went out and saw them, and this year thousands of them packed below this dam. In 2002 the first big head was found here at the Kankakee and the Des Plaines River. I'm showing you right here by 2005. Fortunately there's two locks and dams right in here, and that does slow them down, because they've got to go through. But they're not far from the barrier a lot of biologists. And a lot of folks don't think that the electric barrier is going to be effective. When you look at that weird picture that I just described here, with thousands of these fish, if they're all lined up there right there like a Kentucky derby and you've got a barge going through, I don't know that any electricity is going to stop them. And what we're talking about here is not a pristine marsh or white water or anything like that. This is a man-made canal lined on either side with limestone rocks. This thing used to be so polluted that fish couldn't live in there.

Fortunately as a by-product of the Clean Water Act of '72 we cleaned it up, and we're very proud of that. And no one really wants to turn the clock back, but I'm not sure that we shouldn't be thinking about turning about a two-mile stretch of that back into a toxic situation. You laugh. But when those guys get through this barrier and a scientist at the University of Missouri, didn't think this thing would ever work. And he's done a lot of research around the Missouri River. If they get in here, it's going to be a big problem and you'll never get them out.

This is like a hypodermic needle into the lake. It's a man-made source, and I think that everything ought to be considered, even filling this with rocks. Barges have to off load to ships. Why can't they do that from their levy? I don't know. I'm not an engineer, but I think that this problem is big enough that people really need to think about drastic measures to prevent a drastic problem. And I'll leave you with that thought. There's our website. And then I'm going to show you a video up here, if I can find it. I'm going to have to go up here and close this. Right there. This was done by the Illinois Natural History Survey, but you can see this guys jumping - these are fairly small, like 10, 12 pounders. But imagine if you're a water skier going about 20 or 30 miles an hour and then going into your turn at about 50 and then getting one of these guys in your face. I think there's going to be serious injuries when they get up in the upper Mississippi and Lake Pepin, and in some of those areas where there's a lot of water skiing and activity going on. And initially when I show these things, it's kind of humorous. You know, I get some laughs. But until you stop and think about this, it's really not funny at all. You know, this is the kind of thing that we're

seeing all over the basin, and it's going to be with us for the rest of our natural lives. Now, right there you're going to see one go right in front of this guy – it just missed him. And that's how the injuries are occurring out there. A lot of the Illinois DNR guys have started carrying garbage can lids to knock them down. I think that repeats it here. With that I'd wrap up, and invite any questions anybody has. Thanks very much.

TASK FORCE CO-CHAIR PARKER: Thank you, Jerry. And you can have a free doughnut, too, even though you blamed us women for the purple loosertrife flowers. It will probably be us women that find the solution.

MR. RASMUSSEN: That's right. That's right.

MR. CHAPMAN: Jerry, I'd like to say that you mentioned the Lake of the Ozarks being a dam stop. Actually our record is at the Lake of the Ozarks and it's about 90 pounds. And also I got an e-mail from a boat fisherman that she said Three Rivers Junction - right where the Illinois forms where Des Plaines - so that's pretty far up there. He said he shot a dozen of them one night. And that was not more than a week ago.

MR. RASMUSSEN: There you go.

MR. RENDALL: Just one thing that Jerry said and Duane is about to talk about. There was an article in Newsweek about a woman who was on a personal water craft and was hit by, I believe, a relatively small silver carp, 10 pounds and it broke her nose. It broke her nose, cracked her vertebra, knocked her into the water and she was unconscious. Fortunately she had a life jacket on and was rescued. But there are more and more stories like that that are being told in the media, and it's a reality. It's not just if someone is going to get hit and get hurt, they are getting hurt. So anyways, on to more about Asian carp. Duane Chapman is a U.S. Geological Survey at the Columbia Environmental Research Seminar aquaculture undergraduate summer with the Iowa Conservation Commission back in 1978. His first scientific journal publication was on grass carp while working on his master's at the University of Wyoming in 1988. And Duane then took a 14-year detour into aquatic and marine toxicology before beginning his invasive Asian carp study in 2002. So it's all yours.

CARP TELEMETRY – *Duane Chapman, U.S. Geological Survey*

MR. CHAPMAN: Thank you, Jay. I'm famous for being excited about my research, so I'll try to be good. And incidentally we talked about the impacts. The silver carp -males more than females - jump, and they're dangerous because they have breathing tubercles on their pectoral fins. And as you saw that if it had just grazed him, it would have sliced him open. And they cut you very bad if they get you just right. Now, this is one of my employees, Chris Woody, with the silver carp picture. And I showed this slide yesterday to MRNRC, and I said that this is one of my boys Joe Deters and a big head carp and a fish. This is our director. These things are in the Missouri River - we have a tremendous amount of them. This net is only about a third of the way in, and it's not unheard of to pull a 100-yard net in and - I have to show you some pictures. One of the things about these fish is they don't catch very well. I cannot catch these fish in anything other than monofilament nets, and I cannot catch them with static gear. These things won't float. Then some of the problems we've had with them. I'll go through these real quick. But in the competitions for native fish, we're especially worried about paddlefish, the competition for space, the transformation of the trophic cascade. It's been well documented that these people will and the rivers has not been as well documented. Potential problems continue here. Predation on eggs and larvae and native fish in the Missouri River with the exception of catfish. Their eggs and larvae have a floating stage or drift down river to drifting stage, and we don't know whether these fish are going to hit on them as a food source. But you think they're going to be pretty much randomly filtering environments. But you would think that silver carp both would just really eat fish larvae and fish eggs as well.

We don't know whether they intercept. We don't actually know the answer to that question. And the last thing: hazard to boaters. One of the state employees got hit in the chest before it exited the port bow. Our objectives here, we want to look at large-scale movements and determine degree of activity during cold weather periods. And then we really are trying to characterize these habitats really tightly. I want to know, you know, largely on a variety of scales what kind of catch these people are using. We're using a variety of methods. I don't have time to go through in detail.

The telemetry stuff: We've been tracking these fish since 2002 in 45 to 47 locations that has resulted in a lot in the field work. And those are basically over the range that we've been working. Most of the fish are in a 75-mile stretch, but up the river, but we have fish locations of over 150 miles apart. And that's just river miles. That doesn't include tributaries. We do search every tributary. This is my biggest mover, 150 river miles. To get up to this we found that the cumulative distance is 217, but 150 Missouri River miles. And that's the silver carp. We find that the silver carp are just a lot more active. This is just a fish we've tagged in 2002. We have another batch we tagged in the March of 2003. Another batch was tagged in the fall of 2003. These are the ones that we have significant amount of data on that didn't even die or disappear when they were tagged. And the bighead carp, as you can see, didn't move very far. Most of them were pretty much stable, and the silver carp did a lot of moving around. With the exception of this 94 and 34, now, we caught those fish when they were away from home during the spring spawning migration. And we don't know exactly where they went, because this is on the way back. And they do tend to disappear during the spring. And all my fish right now with this last water rise have gone up river someplace, and I don't know where they are. But one of our goals is to know where these fish go when they spawn. And we don't really know the answer to that question yet. We don't know how far up they move, because we haven't been able to get on the river when the fish are moving enough. Our goal this year was to stay on these fish 24 hours a day when they started moving.

But our safety reasons with thunderstorms and everything and the rivers together with the MRNRC obligations, hopefully that they'll have another spawning migration this year yet and we'll catch them on that. These fish are different in their habitat response, and where they live and what things they do between bigheads and silvers. This is only talking about the ones we have some good data on. The ones that have died and disappeared we don't have. But of the bighead here most of those fish use the Missouri River at least at some times, but all but one of them came back to the Lamine River - one of them by way of the Grand River. And we never actually saw that fish in the Missouri River. We just know he got there because he showed up there and then ended up back in the Lamine later. So they do have kind of a home range that they end up within a mile or two stretch. The bighead we tagged really spent most of their time in the Lamine. And they moved out because of environmental queues such as big floods and things got too muddy. The ones we tagged in the Missouri, again, most of those fish entered the tributaries - at least some. A lot of those fish spent a significant amounts of time in the tributaries, so they are using the tributaries quite a bit. This is a side-scan sonar. One of the things we're doing with the Lamine River stuff is taking a picture of the bottom, and we take a picture of the bottom of the turbid water.

Every one of these yellow dots that you see on that is a fish. The dark spots are the sonic shadows of the fish. And again, you see the substrate. It's like you're looking at it down from above. And I can't guarantee that all those fish are bighead carp, but we can measure them. They're in the right site range to be bighead carp. And when we run a net on these spots, we've been catching almost all bighead and silver carp. So, you know, this gives you an idea of the density of the fish on the Lamine River. And for miles at a time it'll look like this. The silver carp - again, some of these fish didn't use the Lamine and other tributaries, but they didn't use them nearly as much. Once we did capture those on the Lamine, we had trouble catching them in the Lamine. And when we did capture them in the Lamine and let them go, most of them left and a few came back intermittently. But they didn't use the tributaries and they intended to use them more in the summertime than they did in the winter. The Osage was a very different tributary from the other types of tributaries - we have very different water quality. Habitat classification-wise, we're still working on improving this. And we have Emily Tracy. she's working on some preliminary classifications that we hope to include with this, you know, as far as angles of the flow, length, height. For this talk I went into this and did some classifications really quickly.

But just for a real rough kind of a habitat characterization, we went into these different types of fields. And these were some of the different types of habitats that we have names for that I went in. And the big one down at the bottom being the hallaway and then the plunge bowl area. The different names are not important, but just give you an idea of how we've done this. And each one of these different types of dikes had its own type of classifications associated with. This is a trailing dike. It's kind of an extension of a revetment. This is in the middle here. You can see that's an unrouted dike. It's almost underwater, so you get a deep channel there behind that. And that's been done for fish habitat by the Corps. And this is a revetted outside bend and when we did find fish there, they were usually, you know, migrating up or downstream. So it wasn't a place where they were living. And inside bend sand bar there's a habitat on the river, which wouldn't help the Asian carp any because we've never had a fish use a sand bar. The first four groups of bars there are the L-heads. And the second group there is associated with the spur dike habitats. The four largest bars are also shaded with plunge bowls behind wind dikes. And the shorter ones, you

know, of the pairs - this one here and the second one over there are associated with it being out closer to the current so the one is closer to the bank which is a deeper plungeable area.

So the bighead and silver carp are similar in their usage of the different habitats. On the right-hand side we can see the bighead use the tributaries quite a bit more than the silvers do. Here I've broken it out by cold-water period and the March 15th to the November 15th period. We have two sets of data in the summer so far. Again, it didn't seem to matter a whole lot. In the summer they used the L-dikes a lot more than they did during the winters. And this is silver carp here. And they tend to use the downstream end of the spur dike; that is, the outside near the current. You wouldn't expect this to be the case, but it was. It was significantly different. They tended to use the outside near the current more during the winter in the spur dikes than they did in the summer, which I thought was unusual and strange. And the same thing with the bighead. There's really not much L-dike use, but the blue ones are gone. And that has to do with, I think, more the fact that we had extremely low water and the depth of the plunge bowls were much more shallow than the spur dikes ones were, so that might explain some of that. And again, part of the reason, like I say here, that they don't like shallow water very much - 90 percent of the time the fish are in water over three meters deep. So the bighead carp seem to like a little deeper water than the silvers do. And, by the way, that was all Missouri River data.

Eddies: The fish like eddies a lot. We can't always tell when there's an Eddie situation or not. We don't do this every time we go out. And if it's windy, really only about a third of the time we go out there we can say if there is an Eddie or not. But when we can, the existence or the non-existence of an Eddie or circulating Eddie water, about half the time the fish will be in the net. So I thought that was kind of interesting. There are two different types of information that record the depth and the temperature of the fish at and post intervals. And this is a period ending in January and beginning in February. A bighead carp, you can see, the temperature, which is the bottom graph and the depth is on the left-hand axis and is the purple or pink or whatever that is. So the top of the water is the top of the graph. See the fishes hanging out at four meters deep, and when the water is very, very cold, right around zero. We actually had ice at that time. But as soon as it started warming up, the fish started going into these daily vertical migrations and spending the night at the surface. And if you look at this kind of expanded view - this is another time period, but it's the same - we had another cold period and got a little bit warmer. And if you look at those flat tops on those peaks there, what that is is that bighead carp have several feeding behaviors. One of the behaviors they have is they hang up with their mouth at the surface or just below the surface and also vertically. And they suck the surface fill down into it. And there's concentrations of zooplankton and, you know, it collects things there. So they're actively feeding and they're doing it all night long. And this is in February. So they go up to the very top and sit there.

MS. PAULA MOORE: Okay. In regard to this feeding behavior, all right, first of all, with the gill nets that you're chasing these fish with, are you catching any native fish in those nets?

MR. CHAPMAN: About half of the fish or a little less that I am catching are natives.

MS. PAULA MOORE: Okay. Have you done stomach content analysis on a monthly basis for both of these species of fish?

MR. CHAPMAN: We have a study going on now, but I don't have any data yet. I need to get moving through this and get through my talk.

MS. PAULA MOORE: Sure.

MR. CHAPMAN: This is the silver carp stuff. We saw that they were kind of more active during the daylight hours, at least I think so. Now, I haven't done any statistics on this yet, but again, there is more winter activity stuff. This is the silver carp. They don't do that surface feeding thing. But they were more active during the daytime, I believe. But I have a statistician working on this right now trying to figure out how to analyze this. But it looks to me like we see these pulses of movement during the daylight hours during the wintertime so, you know, they have different behaviors.

This is something you'll see in the literature that during the wintertime bighead and the silver carp go to the bottom and the deep pools to hang out. I don't know where that comes from, because I've never seen any data to indicate

that. But it does show up in the literature from time to time. It's patently false from all of the data that I've found. This is a graph of the depth of the bighead and silver carp. We have six of these tags that have been returned so far, and they all show the same thing. The red one is a silver carp and the blue one is a bighead. This is the actual depth that the fish occupied. And the bigger triangles down here - the darker ones - are associated with the darker fish, and the lighter one is associated with the lighter colored fish.

That's when we were actually there and measured the depth the fish was at. So these fish never go near the bottom during the wintertime. And that's the case with all six of the fish that we covered. So they just don't pelagic fish during the winter and the summer.

Water quality stuff: Temperature, you know, we didn't see much difference between the fish at temperature sites. And the top to bottom difference was pretty well mixed even back behind the dikes and the L-heads or anything. We never saw any stratification to speak of really on the river, except for the tributaries sometimes we got pretty good stratification. So that didn't seem to bother them.

Chlorophyll stuff - this is really interesting. Even though chlorophyll concentrations were extremely variable over time and I graphed this for you, it would look like a shotgun blast, which you can see here. But the fact is that typically where the silver carp are located, the chlorophyll concentration is just a hair higher in all of the overall concentrations of locations of the fish that we have done, it comes out highly significant in chlorophyll concentrations were higher. The bighead carp weren't. And there wasn't any relationship at all with them. And I think what's going on there is a real relationship here, and that somehow silver carp are finding areas where the water retention time is longer and you're getting enough chlorophyll in the phytoplankton growth there that your concentrations are going up a little bit. But I can't tell that because I can't tell you where the bighead and the silver carp are going to be and others are going to be. But until I get back to doing the chlorophyll and compare it to the other chlorophyll and then you will find they'll match up. But they are choosing different habitats within the main stream river. Turbidity is extremely variable, as the rivers are. But both of them were finding habitats with lower turbidity than the mainstream rivers. But silver carp were getting evening higher, and I think that's again because of phytoplankton growth where the silver carp are - the plankton growth coming back in.

Length, weight stuff: I'm not certain exactly how to interpret some of these length and frequency things, but I wanted to throw them in. I changed gear types about this time of year so I've got a years worth of three-and-a-half inch trammel. So this is all three and a half-inch trim on this data. I've got exactly a year's worth. For the bighead carp there's not really much difference between periods, you know, that we have data on length and weight of the bighead carp. But there is significant difference with the silver carp. And I don't know what's going on there. The ones we just caught in the last couple of months are bigger than the ones we caught almost a year ago. The ones that we caught in August, September, February, March are intermittently higher. I don't know exactly why that is. It may be because larger fish are easier to capture this type of year. It might be because there's no recruitment. Big question there. We're not seeing a lot of young fish, and I don't have a study out there right now to measure young fish. But I know that silver carp, in particular, if you drive a boat through a school of young silver carp, they jump at all sizes from this big to, you know, as big as they get. So you'll see the little tiny fish in your wake. So I don't think we're getting good recruitment here in Missouri in the last couple of years of silver carp. So that might be associated with that increase in size. And it might just be that we really haven't had silver carp here in any significant numbers. Since about 2000 we've started seeing in larger numbers, and maybe they're just growing bigger. And, you know we're having more bigger fish to the catch. But with the future collection we should get an idea about that.

This is about my last slide I think here as far as data. This slide shows the gonadosomatic index which gives you an idea when they're going to spawn from this. And you can see it's variable. We've got a little bit of rise in both species in the late summer, and again, in the late spring. The silver carp typically, though, look to be like they were ready to go most of the time and pull the eggs out of the fish. And I do have Diane Kapulius (phonetic sp.) who will be staging a lot of those eggs in the future, but we don't have that data yet. But anyway, just real quickly here in conclusion. We did see a lot of differences in bighead and silver carp. Both species are active in the winter and changes locations during spring water rises and both preferred deep water. But neither species is pelagic fish. You're not going to catch these fish because they're not going to monofillic nets.

But that's just some of the things that if you delve into these data, there are things that are useful in terms of controlling these fish. One of the things we don't know about is juvenile fish habitats. We don't know. They have real defined recruitment requirements. And I don't think we've had good recruitment for a couple of years. And it's really more of a speculation than it is data, but I don't believe it's the case that we've had good recruitment in Missouri. But I think we're getting it with this water. The Corps of Engineers is doing the shallow water. The manufacturing is done in shallow water in the Missouri River, and it doesn't look like that habitat is going to be very useful for adult Asian carp, but we don't know about juveniles. I don't think we're getting good recruitment. Now, are we going to, by generating all of this low velocity and shallow water habitat? We don't know whether larval fish are consumed by these big filters. We don't know the spawning locations and need to work on control methodologies, and the ones that Ed is going to talk about. And we need some better detection methods, and we need to think about newer ways to determine presence/absence. Things we key in on things like the jumping or the surface feeding, which you really have to go out at night to be able to measure that. Bow fishermen shot a bunch of fish, because the bow fishermen tend to shoot at night. I've been really in touch with a lot of bow fishermen and I've learned a lot from these guys. They have another angle out, because they're really high on these stands. You can get to see the fish and get some ideas about what they're doing. So I've been eating, sleeping and breathing these fish for two years, trying to understand them as hard as I can. But anyway, that's what I've got to say.

TASK FORCE MEMBER MILLER: How long-lived are most of those carp?

MR. CHAPMAN: You'll see different things in that in the literature. But the numbers I see popping up in terms of their maximum age tend to be in the 20- to 25-year range. They're difficult fish to age. But we're not doing any of that. Andy Starostcly (phonetic sp.) has been working with that a little bit. There have been other people who have been trying to work with the difficulties of aging these fish, but that is another need in terms of research needs in how to get out the final bugs and being able to age these fish and give us an idea of good years of production and which ones aren't. And that would be useful.

TASK FORCE CO-CHAIR PARKER: Anybody else on this side? And then I know Paula had a question. I wanted to ask you to talk a little bit further about the barriers and some of the discussion. Can you expand a little bit on Jerry's suggestion of putting the rocks in the canal and, you know, your views on that and also think about, are there other options that may come to mind?

MR. CHAPMAN: Ed may have talked about the pheromone that he is working on now and it may turn out to be used as an influence. Again, it's almost speculation as to whether it will at this point. But it's certainly worth looking into. But again, there's no sure thing with even putting rocks in the canal although, you know, we do get a lot of transfer of animals other than Asian carp back and forth through that canal. It's a societal decision, but certainly it is a pathway that we could close if we thought if it was the right move to make in terms of a decision. That's what it is. But we don't need to do research on it to tell you that it is a pathway between these two waters. Whether or not some of these barrier methods can work or not I really think that we've been working on this for a long time. And I've been involved in it, too. These guys are working really hard up there. They're trying really hard to make sure that this canal barrier works, but they're limited in the technology.

We have not really decided whether that electrical barrier is going to work on these little fish very well. They're starting to think with this pulse rate that they're developing that it might work on the smaller fishes, and I think they're feeling a little bit more confident about the smaller ones now. Putting some of the new technologies into it, too, it's going to be expensive, which is it more expensive than filling the canal full of rocks, maybe, maybe not. I don't know.

MS. MOORE: Okay, these fish grow very fast and feed on the smallest organisms that there are in the water. All right. They also expend an enormous amount of energy that they consume in just moving, hence the jumping. Okay. Has anyone looked at how they use this nutrition - what the stomach contents are at any given point during the year? Have you examined to find out whether the stomach content includes larval fish?

MR. CHAPMAN: We are underway with those types of studies. Now, I don't think that my study right now will answer that question, because we don't have enough samples and have not hit it hard enough at the time of the year when we're most likely to find larval fishes. Mark Peg has done those types of studies in terms of overlap with paddlefish. And I have a study going here to find out what they're using. But it's very limited in scope. It's not

nearly gotten good enough to answer questions about the larval fish we need to answer. In terms of energies there's no one doing that research, especially in river fish. There are lots of questions that I can't answer.

MS. MOORE: Well, that's for research to come and I want to encourage there to be as much research funding for this type of thing as possible, because there's not that much known about these fish. They grow in impoundments where there are no other sources of food besides phytoplankton and zooplankton. They still grow enormously fast.

MR. CHAPMAN: Well, they are known to, and some environments actually are limited samples in the fall. And the only ones who's analyzed them so far from the fall. The bigheads were eating zooplankton or phytoplankton. They were eating insect species and that kind of stuff. You know, these guys can get by on a lot of different stuff. They do have a variety of methods that are able to feeding strategies. We talked about feeding below the surface with the head up and the tail vertical. They also do another thing where their head is halfway on the water and they're rampaging on the surface and swimming horizontally with their mouth open. They can pick up detritus off the bottom if they have to. They're not limited by, you know, the presence of the zooplankton. But they certainly would prefer that diet over anything else I think.

MS. MOORE: Well, that's why I'm interested in finding out –

TASK FORCE CO-CHAIR PARKER: And, Paula, I think what we'll do now is have the two of you try to get together at break, if that's okay. I did have one other question.

MS. PROCTOR: I'm just getting a sense that these are terrorist fish. We ought to get some Homeland Security money. You know, there's money out there for this research that we haven't tapped yet.

MS. MOORE: No, they're just a magnificent resource that needs to be utilized.

TASK FORCE MEMBER ZAJICEK: What's your long-term plans for study? I mean, you said you've done two years of work. Does the agency have a long-term plan?

MR. CHAPMAN: The telemetry studies that we have going on right now will end in 2000. That's when the funding part ends. And that's when those tags we've got currently planted expire. I hope to be able to get a little more funding out of the USGS just to keep some of this up and going. But I don't have any guarantees of anything actually at this point in time. I have all of these plans that I'd like to do in these research goals, and I have been putting out proposals, but I have nothing in terms of a goal. So I'm trying hard, but on the one hand I've got no money.

TASK FORCE MEMBER GROSS: Well I can answer that. For 2005 there's a budget increase request for the U.S. Geological Survey, and about \$700,00 of that request is an increase that will focus on developing innovative control technologies for the fish or aquatic organisms. And some of that is intended to go towards Asian carp. So we do have plans in the future to try to increase, some of the existing funding to try to address this problem. Although there are people on the Hill, you know, when we put that in our budget, there are people on the Appropriations Committee that said, "why are you putting in money for Asian carp?" We did not get a positive response, so it's up in the air.

[A RECESS WAS TAKEN.]

TASK FORCE MEMBER WILSON: If you could start assembling yourselves in your seats, we could get started pretty quickly. You moved a little faster than I expected. Mamie will be back in a just a second. There she is. I was going to try to get it set up when she got here, so it looks like it's working.

TASK FORCE MEMBER ZAJICEK: I'd like to say something. In past history I think we've all done some field biology work. And when you see things outside the box, putting every effort into it, lives and breathes and eats his subject, really my hat is off to you, Duane.

MR. CHAPMAN: Well, thanks. [Applause.]

MR. RENDALL: Our next speaker is Ed Little. He is the branch chief for ecology at the USGS Columbia Environmental Research Center, and he's been working on pheromones. And we were just talking in the hallway about one of his colleagues, Peter Sorenson, that was here for the carp workshop the other day. And he's working on common carp pheromones. And this is a perspective tool for management, so I'm anxious to hear from Ed, because I haven't heard about his work so far. There you go.

CARP PHEROMONES – *Ed Little, U.S. Geologic Survey*

MR. LITTLE: Thanks a lot for inviting me today. And from Duane Chapman's presentation it's pretty clear that we've got a lot of carp, especially in this part of the Missouri River. And from Duane's fishing effort he's found that among the large fishes that the common carp are really the most abundant, particularly in the middle Missouri River right now. And when Duane goes fishing, he comes back with tons of fish, so they're really pretty incredible. One of the problems with carp management is that the tools for getting rid of these animals are reducing or controlling the populations tend to be non-specific - they tend to be non-specific in that, you know, there's a bicatch of other species and they do affect targeted organisms. Also, as Duane has pointed out, too, these fish are very difficult to capture. They're very intelligent fish, unfortunately, and they're very clever about net avoidance and things like that. So a lot of the traditional procedures that we have for controlling fish don't necessarily work really well for the carp.

And we feel that the use of pheromones might increase the specificity in terms of capturing these animals. Pheromones have been used widely in agriculture to control agricultural pests - gypsy moths, for instance, they use pheromone traps to collect them in the field. Pheromones have been really well developed for the control of species, and actually this is the first pheromone to be used in pest management. And presently the laboratory pheromone is undergoing the testing for the NIPA process, so it can be applied in tributaries in the Great Lakes. So this is really a terrific advancement, and it's also a situation that I think we can build on in terms of developing carp pheromones.

Pheromones have also been used for controlling the Eurasian carp from the Great Lakes. And again, there is some good science there in terms of developing the extracts to accomplish this. So we're fortunate in that we don't have to totally reinvent the wheel on a lot of this work. Pheromones are chemical signals that pass between organisms, and they mediate physical and behavior responses. Pheromones are generally perceived in the olfactory system so they are a sense, and they tend to be specie specific. So other organisms don't necessarily respond appropriately to them. The carp, again, they're a very interesting organism. They have a fairly complex social behavior, and a lot of that behavior appears to be mediated through pheromones. And some of the behaviors that we have seen so far would be alarm for defensive responses made in response to predators, and would also include social aggregation types of responses that tend to draw the schooling or socialization type of observation and keeps a population within a small area.

And finally, pheromones are very important in carp for reproduction. The work with pheromones has been conducted with the Asian carp; however, there has been a lot of work done with the goldfish, because it's somewhat of a white raft for pheromones in academic studies. And the goldfish is a distant relative of the Asian carp. A lot of that data will be applicable to the Asian carp.

So our plans are to develop a repellent based on the alarm pheromone using skin extracts from Asian carp, as well as using some of the pure compounds that have been identified in goldfish. We also hope to develop an attractive lure, based on sex pheromones, and possibly also use some of the chemical constituents that have been identified in those pheromones as well. Alarm pheromones are found in a whole variety of species. They were first described in the late 1940s by a German, Kalenfrich (phonetic sp.). He designated those as to fish and have been found in salmonids as well, and they're an anti-predator chemical signal.

The alarm substance exists in epidermal club cells in the skin surface, so skin cells deep above the scales. And the substance is released when the organism is bitten or attacked when the skin is injured by a predator. And the signal itself doesn't help the victim, but it warns all the fish around the victim that there's a predator present. And that induces a whole bunch of defensive reactions that might include freezing, might include schooling, often includes retreat from the area and often avoidance of the area as well, so it's a really good defense. And we're hoping that this would be a very useful signal to use that might revert animals from critical habitats. Most of the studies with alarm pheromones in a variety of species show that they tend to be pretty specific, so a goldfish pheromone isn't

really Asian carp. For instance, there's that specificity. The pheromone -- the -- the reason for the specificity is likely because the pheromone is composed of a mixture of chemicals. There are several pure chemicals. They tend to be nitrogen oxide type compounds that have been identified in a variety of species closely related and unrelated to Asian carps.

I think the at time we initiated this work we really didn't know if the Asian carp had any type of response to the alarm pheromone, though we expected they would have the club cells and the morphology to support that kind of response. So our research plans are characterized the responsive Asian carp to skin extracts and also to examine some of the substances that are found in extracts from other species. And a lot of this has to do with understanding once the pheromone is released into the environment, how long it's effective, is it really ephemeral, does it last a week? To understand the duration of the response of the organisms themselves, they habituate really quickly or do not. Do we understand the habituation.

MR. RENDALL: Supposed to start dancing, though.

TASK FORCE CO-CHAIR PARKER: Pheromones working.

MR. LITTLE: It's really important to understand how frequently we've been applying this sort of technique to simply stop responding to it. We also want to isolate the most effective concentration of the extract. And to come up with a way that that would be a field-friendly application if we have to start dripping this stuff into the Chicago Sanitation Canal. And a lot of this work is going to include demonstration tests in streams, and hopefully in tributaries as well. So our approach in the laboratory right now is to conduct pre-filled studies where we look at the studies of the small school of animals and, you know, in a large tank.

We also do avoidance responses. And we're particularly interested in the small fish, since there seems to be some concern about the effectiveness of electrical barriers, being as effective as they might be. And so we're going to be looking at these organisms from the real small organisms up to fairly large creatures. And this is an avoidance chamber. The alarm pheromones offered at the one end of the chamber and the fish at the other. The chamber drains at the center and we have overhead cameras to monitor the response of the fish and to the pheromones. So it's a fairly straightforward approach. We'll also be doing similar things in the field. And we'll be, first of all, trying to characterize the voter response, because that would have an effect on how to utilize this control.

This would not be so effective, whereas if they flee from the area and stay away, that would just be perfect, and then, as I mentioned before, understanding the persistence and habituation to the pheromone. Understanding when during their development they begin to develop the alarm substance and when they develop to respond to them. There tends to be a fairly significant delay before that occurs in young fish in most species. And then finally, we're very concerned about cross species reactivity, because we would like this to be as species specific as possible.

This is a film clip. The alarm pheromone is in this sponge and it forms a gradient about that area. And this small school of big head carp are approaching it and getting about to where the pheromone ends, and then they're displaced from it. And when we initiated these kind of studies, we found that they stayed at the other end. They really, for some reason, prefer this corner, and they were diverted from that throughout the afternoon. So we know that it lasts for several hours at least. And so these are the kinds of studies that are ongoing right now.

We just recently started looking at similar sized silver carp, and with the silver carp we got quite a different response. You might notice from the film clip that the big head carp have really tight schools and they pretty much move as a school. And it's kind of neat, because the school becomes sort of like a super individual. And rather than having one pair of minds and lateral minds, they've got 20. So they're extremely sensitive to environmental stimuli like that, whereas the silver carp tend to be a lot more dispersed. And when we applied the pheromone in their case, what we got, as you might expect from what we've heard so far, is just explosive activity rather than schooling and coming together, they're dispersing. And evolutionarily that's probably pretty important in terms of confusing predators or confusing their mode of attack for a particular individual. A lot of these responses to the pheromone really depend on the environmental context, for instance, so it could be a lower concentration. We might see more of an avoidance reaction with that species so we have a lot of work to find out how effective this could be.

The alarm pheromones would be really helpful in diverting the Osage River. For instance, we might want to drip the stuff in there when the paddle fish are spawning when the early life stages are there. It might help influence the shipping canal as well. But on the other hand, a lure something that would draw out the organisms would also be great in terms of getting them out of the system all together. And certainly sex pheromones would really provide that function.

And with most species, sex pheromones tend to draw the organisms together, and so we can create an aggregation. Generally in fish the sex pheromones are released from the gills and they're also released in urine. They might also be present in the surface skin mucous as well. And the pheromones in the carp species tend to be really important in terms of gonadal development, as well as inducing appropriate development of when the spawning sequence happens. And we know that we can induce the pheromone release in goldfishes at least using estradiol injections, so it might be possible just to inject mature females, have them in a trap and then have them in some sort of a collection that we can use to draw the organisms together. I think what's especially important is that with the carp pheromones and it appears that they have an aggregating pheromone at very early in their sexual development, and this tends to draw lots of organisms into the general area.

And this is really effective if you are in a turbid environment where you don't have a lot of other queues. So all of the animals are there together, and then the other pheromones physiologically prepare them for reproduction. So everybody is there and ready to go. So we're hoping that this aggregation is effective not only in attracting males, but attracting juveniles as well. And there have been several hormone precursors that have been identified in fish sex pheromones that we're also going to test, in addition, to our caged female. And so pretty much as we're planning for the alarm pheromone, we want to characterize the response to the sex pheromones to test the effectiveness of caged females and lures for males. It's kind of an added challenge dealing with. I've spent most of my career dealing with fish this long, so it's going to be interesting.

We're also going to work at the isolation and concentration of the effective fractions of this experiment. And we'll be doing some stream positive tests. There are 150-meter streams that we can control for these tests. We're particularly, again, interested in the persistence and active space of the pheromone. How persistent is it once it's in the environment, how likely are they to ignore the response if it's persistent in the environment. We're especially interested in the ontogeny, especially at the young stage that the young fish activate the pheromone. And then we're concerned about cross species reactivity, so we can understand how this will be. And this will be really important to the deeper process to demonstrate specificity. So another important aspect of our work, once we characterize the response to the pheromones, will be to develop a field-friendly fraction that can be applied in the field. And we're going to be working with our checklists.

We're going to be doing a lot of lipid chromatography and mass spectrometry of the alarm and sex pheromone. We'll be identifying those particular fractions and then working on techniques to concentrate them. It might be useful. But I can almost envision for the alarm pheromone, for instance, that we divide up half of the fish and repel the other half. So if we can make that more efficient, that will be good. Finally, we're going to be doing guidelines for the efficacy of attractants and the repellants in the controlled field tests. I've done a lot of work in ecotoxicology. And one of the things we've been concerned with species at risk are those in their life cycle that make them vulnerable. And we're going to turn that around now and kind of use that against the fish. But there tend to be organisms that require specialized environments for the reproduction -- for development of their young tends to be a point of vulnerability. If they migrate, that's also kind of a point of vulnerability. And finally, if they exist in heavy aggregation, that's also very strong for the vulnerability. So I think that these fish tend to show all of these characteristics, and I think it's going to be a means that we can use to again show these organisms in the field. Basically we have a three-year project. Our first year's activity is going to be the characterization of the response. The next year we're going to begin some of the chemical characterization and fractionation identification.

And in the third year we're going to be working on field packaging of the pheromone and initiating some controlled field studies so we can determine how effective it is. And finally, unfortunately I'm not doing this alone, and I have a lot of qualified people who know what they're going to be -- and actually in Columbia. And, in addition, we are interacting with a number of people within active -- through the fish pheromone studies, as well as some of the management agencies who are kind of grappled with this problem. Thank you very much.

TASK FORCE CO-CHAIR PARKER: Questions?

TASK FORCE MEMBER McDOWELL: I have a question on the hormones. Are you using separate hormones for the separate carp species?

MR. LITTLE: Well, in terms of the injection, we'll probably be using sort of a standard estradiol injection.

MR. CHAPMAN: Are you talking about hormones or pheromones?

TASK FORCE MEMBER McDOWELL: Oh, pheromones actually. You're getting them to release the pheromones?

MR. LITTLE: We're getting them to release the pheromones and then we'll make steps to begin to characterize them. Hopefully they will be the same or they will be greatly similar.

TASK FORCE MEMBER McDOWELL: I guess my point I have towards the Task Force is it seems like a great possibility. And, you know, I would like to probably expedite this type of research, but then the need for the process is fairly long. And if the carps start to approach that barrier in Lake Michigan, maybe the Task Force can have a little forethought in, you know, preparing something so that if it looks like it's imminent that its getting to that barrier, that they can, move forward on the process to maybe, skip, or not skipping, but implement some kind of an emergency response. Like, they're right here and they're going to come in and it looks like their research over the next year or so is indicating that its going to work. Then maybe, create some process mechanism to speed that up so, you know, we can be prepared in a year or two if it's imminent to move forward, if we can, in the response.

MR. LITTLE: We're also hopeful that using the injected fishes really won't require that, and hopefully using the extracts won't require that either.

TASK FORCE MEMBER GROSS: It's probably going to basically require a permit.

TASK FORCE CO-CHAIR PARKER: I do think that your statement begs a bigger question not just related to pheromones, but in general. We ought to at some point in time have some discussion as a Task Force as to what are some of the options or what kind of formal statement this group can make about the fact that we need to maybe encourage some form of movement faster or some in the event that the barriers won't work, you know, that we'll be ready for some other form of action. I don't think we're ready to do that at this meeting, but I do think we need to give that some thought in terms of a Plan B, and is that a role for the Task Force. I haven't had a chance to talk to the staff about this. I did speak with a lot of people on break and said, is there something that we can do as a Task Force to help this issue and try to address it? But I didn't get very far in that discussion.

TASK FORCE MEMBER GROSS: And I wasn't part of the Task Force when this happened. But one of the things the Task Force did was, it was the gobies that the original barrier was designed for. And the Task Force did take a leadership role in trying to get something done. And you were probably around for that, Jay. I know it was Sandy Kepner and actually it was Jay Troxel. You know, so I think there's a history of the Task Force taking a leadership role in getting a move on this. And the whole issue of developing innovative control technologies, that came up last near in the National Invasive Species Council crosscut. And, you know, several agencies were involved in identifying that as a priority for '05. And I know USGS has some money in their budget increase for it. I think some of the other agencies may as well. But it was identified as a priority but we don't have many tools in the toolbox for aquatic control. And, you know, if it's not in a contained area we're real limited, in what we can do.

TASK FORCE MEMBER GROSS: There's a question.

TASK FORCE MEMBER KATZ: I do have a question, if I might ask. When you said you hope that the NEPA process wouldn't serve as an obstacle, does that reflect discussions that you've had with people maybe, either in Region V or in the Great Lakes program office or headquarters for EPA? I'm just curious.

MR. LITTLE: Mainly we're working with some of the people who have worked with pheromones in the past. And I think that the issue was really looking at the skin extract and to understand that applying the chemical substance would require a NEPA action.

TASK FORCE MEMBER KATZ: Okay. Thank you.

TASK FORCE CO-CHAIR PARKER: Question in the audience?

TASK FORCE MEMBER WILSON: One thing I think actually, as bad as I hate to say it, if we got the pure extracts, we might actually have what would be considered a pesticide. So we'd have to go through the pesticide registration process. But that has been expedited lately. So we might be able to move fairly quickly. But, again, it would probably be looked as a pesticide and it would have limited use and there would probably not be enough produced unless a large company picked it up. So, again, we'd be facing the same thing we face -- we won't know the animosity of all the others that we're trying to use as pesticides where we're looking for somebody on a small company to produce the stuff. I don't think USGS wants to go into the business of producing this stuff on a scale that would allow us to use it. But we hope that the skin extracts, like Ed said, and using the hormone with the females may allow us to use those without going to a pesticide, because it's a natural product used in a natural way.

MR. CHAPMAN: Just a question. The suffix "cide" means something that kills something. I don't know anything about the rules on this, but it seems weird to me that it would fall under the pesticides. And if it doesn't kill anything, it seems it would be either a bait or a repellent.

TASK FORCE MEMBER WILSON: Well, yeah. But the way it's defined in FIFRA it would fall under that. And it's just as well to register it once you get to that point anyway. Hopefully USGS and others will probably have done the work that would be required for registration.

TASK FORCE CO-CHAIR PARKER: Okay. Ed, to get us back on schedule and we're right back there, shall we celebrate him and move on to the next one? [Applause.]

STATE REGULATIONS FOR PREVENTING SPREAD OF AQUATIC NUISANCE SPECIES – *Jay Rendall, Minnesota Department of Natural Resources*

MR. RENDALL: Okay. A couple quick comments here. I was asked if I could remind you to put your name badges on the table outside when you leave, so they can recycle them. And at the break Mamie and I discussed adding another presentation - a short few slides at the end after my regulatory talk about the overview of barriers that came out of a study that we recently funded - the Fish and Wildlife Service and DNR. We recently funded a feasibility study related to barriers, and I thought that might of interest since we've been talking about that this morning. Well, first, I guess, I'll introduce the next speaker.

We obviously saved the best for last. And actually I think I am a lot different from some of the other speakers. And want to just say this because I just thought about it in the last couple of minutes. I worked for the private sector for eight years before I worked in natural resources. And then I've worked on invasive species since 1987. I have participated on the Task Force's Recreational Activities Committee, which is really not active right now, but we were the ones that helped develop the guidelines that now the stop aquatic hitchhikers campaign is trying to promote. And which leads me to the next thing - I saw the Mississippi River Basin Santa Claus in here this morning leaving hats off for you so that you can take that back and remember to share that news with others.

AUDIENCE PARTICIPANT: Yeah. And they have identified that Santa Claus as you, so I'd like to celebrate Jay's leadership. [Applause.]

MR. RENDALL: Thank you. I've been the DNR Invasive Species Program coordinator for many years, and that's what I currently am. And I am also the chair of the Mississippi River Basin Panel, as you've heard. And there are lots of other things I've done that I'm not going to go into. So this talk about regulations is a little bit of a hodgepodge of some ideas. There have been many efforts to evaluate regulations, federal and state and other, in terms of the invasive species. And I wanted to go over some of the points from those. First I wanted to talk about "why are we talking about this? And you probably all are wondering why do we want to talk about the state regulations when this is more of a national entity.

Well, these are some of the thoughts I had. First of all, we wanted to give you examples of what's going on in the Mississippi River Basin - some of the things we're doing with regulations. I think it's an important prevention strategy, along with others as well. It can't be done with only enforcement. We need education, but it is important. I want to demonstrate some of these ideas that we've mentioned yesterday or in the past for new sorts of federal laws. States are implementing those on their own, and there is acceptance for some of these ideas.

And then I wanted to show you the level of effort that we're going to in the states to deal with these issues. That this is a severe problem and by enacting these state regulations, we are showing that this is a serious issue, and our legislators and state agencies are addressing it that way. As I mentioned, there's many different publications and reports and assessments. The OTA report from 1993 was one. Actually this Task Force had a report, and I couldn't remember last night what the name of it was. But it was on intentional introductions, I believe, and it had guidelines for model regulations in there. The Great Lakes Panel developed model guidance a few years ago and the Congressional Research Service did one on harmful non-indigenous. The Environmental Law Institute did one a few years ago on state tools. And then just recently there was one from the Great Lakes about making a list of prevention strategies for invasive plants in the Great Lake states. And some of this I read for the first time last night, and so I'm going to share a couple of things from that with you. But anyway, there's many others. And I wanted to take a few points from those. And some of them aren't very complementary of our federal infrastructure, so I hope I'm not offending you. I'm just reporting what other people said. I'm just the messenger.

Some of the conclusions that people have made in assessing all of these laws are in these following slides. And here you can see the nice beautiful see squirts from Washington and the zebra mussel, and the fact that we keep getting these are indications that our past laws and our present laws are not effective. And it goes everywhere from ballast water down to other laws. The typical approach to invasive species regulations and the process is often reactive, it's often too late, and it's often less than effective. And you heard some of that from our comments from the panel yesterday. The OTA report was done in 1993, and I don't think a whole lot has changed since then, but it says "the current federal framework is a largely uncoordinated patchwork of laws, regulations, policies and programs." And it goes into much more detail on that. The 1999 report from the Congressional Research Service says, "no current law addresses the general concern over non-native species and the variety of paths by which they enter this country." Again, sort of the same theme.

And then we switch to state regulations. The OTA report concluded that we have a whole variety of different laws from very weak ones to very strong ones to very developed ones. They also pointed out that when we look at the agricultural side of it, the terrestrial plants, pests are very comprehensive. But when we get to things that this group focuses on, the aquatics, the invertebrates, the aquatic plants that it's much different - much less comprehensive and more spotty.

This new report that I just read prior to last night said, despite the diversity of state approaches, experience has proven that the most effective and the cost-efficient measures are often those taken to prevent the initial introduction. And that's kind of on the same theme here. That's where I think a lot of the states view the federal role, that we need strong leadership to prevent things from getting here in the first place. And, of course, we want to prevent them from getting into our states. And that's the first line of defense and we're the second line of defense. And then there are many places that have suggested model regulations, what should be included, what should we do in the states. And these are some of those. I'm going to give you examples of these using Minnesota laws as an example, not because I want to show those off or anything or I think they're better than the others, but because that's what I'm familiar with. And they are changing, and I'm not familiar with all of the new laws in some of the states. So they suggested to provide authority to regulate the import, transport, progression and introduction. Establishing lists is another one and requiring permits for regulated actions.

Now, in Minnesota we have a framework. This is kind of a stoplight analogy that species that are high risk we put in the prohibited classification when we want to stop the use or the possession or import of those. Then there's these two categories, moderate risk and unknown that are a regulated classification and are unlisted. Unlisted are the ones that aren't in any of these categories, so it's all the things left in the world that we haven't put on a list. And then the low risk, unregulated. And actually if you get on the low risk, even if it is something that's bad, but it's also something that's beyond trying to regulate like starlings and sparrows and so on. Also the "beneficial" things like in our state like brown trout and salmon are unregulated because they're societal beneficial species.

Model regulations should include some form of evaluation of impacts for proposed introduction. And actually in some states this may be for importation. I know Hawaii has a similar framework, only their's applies to bringing it into the state where we feel we can't regulate everything that comes in, so we want to make sure we regulate what people let go into the wild intentionally. And in our laws in this framework we have the unlisted category, and those are subject to the classification procedure. So if you came to us, like one person did, and were asking me before we actually had this framework - he wanted to know if he could release or introduce seals on the north shore of Lake Superior to sit on the rocks and bark away and eat all of the steel head, I suppose.

And at that time we didn't have a classification system, and there was nothing that would prohibit it. Now, if you were that person, you would have to provide us all sorts of information and background, and then we could evaluate it and then decide which category we would put it in. So anyways, that's one of the concepts that many people have suggested should be out there. Also regulate the transport of known harmful species. There's always discussion of clean lists of screening and blacklists and dirty lists and gray lists. And the ones that we know are bad we should address.

Regulating pathways is another part of the model regulations. So this is a little different thing here, but it deals with the pathways. In our state we have a mandate that we have to do inspections of watercraft that leave waters of the state. And we think it's very valuable. We have inspectors, like this person, who are basically college interns that we hire in the summer, and they talk to the boaters and they leave stickers and leaves things on their boats if they don't talk to us. So that's one way to address the pathways.

We also address the infested waters. We've defined what infested waters are and we designated those so that the public will know and we can apply our law to activities that may occur at those locations. We post signs like this one that tell people what's in the water. Our regulations say that water from infested waters may not be used to transport wild animals. So if you're taking fish like, you know, harvesting common carp commercially or you're taking bait or other things, you can't transport from infested waters.

We have a variety of these rules. I'm just giving you a few examples. But a person leaving infested waters, whether they're zebra mussels or water fleas are required to specifically drain their water-holding containers before they go on a public road. And so they need to pull the drain plug from their boat and empty these waters because these are waters that could contain life stages of organisms or organisms themselves that are very difficult to see, and you wouldn't know if you had water fleas in the water where if you had some of the fish or you had milfoil in the water, you could see that. But with these species, the public would never know if they were transporting it, and the likelihood is they are in the water. So that's why we've taken that sort of approach.

I think the most significant gap in the state laws and, as I said the other day, I think a federal law is we don't prohibit the transport of aquatic plants or ANS in general within their borders. This is an example of what we don't want to see, both because of the plants and because zebra mussels and other things could be attached to the plants. So we have a regulation that you cannot transport aquatic macrophytes - which is a fancy word for the big plants - on any road. We made a lot of exceptions so that if you are legally buying plants at a store, you can take them on the road and take them home. And if you're wanting cattails to set above the water line in your duck boat for camouflage, you can do that. So it's not a total plan, because we even let you carry duckweed around on your boat. We would like you to clean it off, not necessarily because there could be a problem with it, but we have to try to be practical as well.

Another part of our system is that you cannot place or attempt to place boats or trailers into the water if they have plants or zebra mussels or other prohibited species attached. This is exactly what we don't want to see. Someone taking a boat out of the Mississippi River that's infested and driving it somewhere and putting it in another lake and then infesting that with zebra mussels. And then I think this is the last example here looking at pathways - harvest of bait. You know, Joe mentioned earlier today that there's a lot of bait harvested from Lake Erie where there are gobies. And we have a big concern about people taking their boats to these places and putting them in the fresh water. First of all, they could get zebra mussels or water fleas or plants attached to it and then quickly move it to another location even that same day or be moving around more than just the typical boater.

There's a lot of things on these nets and traps that things could be attached to. So there's that angle, as well as the fact that it may be very difficult to tell the difference between the native bait fish and some of the invasives. This is an example of silver carp on the left and the gizzard shad on the right. There was a situation where some of the biologists in one of the Mississippi Basin states didn't realize what they had - they thought they were taking a whole bunch of gizzard shad back to the office, and then they found out they were taking silver carp. And that's why we think, at least in our state, that we need to deal with it by just banning the harvest of bait in infested waters. Now, in Lake Erie we've got a different situation. That's one of their primary sources and how they deal with it probably needs to be done with the passive process like has been discussed. So those are just some examples. I wanted to throw these out for discussion. But I think it shows you the length that we'll go to try and stop the spread of this. And there's many other examples I could give you from our laws and from some of the other states, but we're very serious about it and hope this will maybe help raise your awareness about it a little bit. So are there any questions on this?

TASK FORCE MEMBER RIPLEY: Yeah, I just wanted to say I think this is really an appropriate presentation at the end of the day or at the end of these meetings. And I want to say that I am very disappointed, as a lot of people around this table probably are, at what is happening in Congress to the reauthorization. And a lot of us have worked very hard to give Congress the information they need to make these decisions and transfer the urgency of these problems. And I think that all of us around this table need to look and see what we can do, up and above what we have been doing so that we can let Congress know how important this is that NISA be reauthorized, and that these things are in place for prevention. And prevention is really what we're all about. It's our greatest hope for the future.

TASK FORCE CO-CHAIR PARKER: Lisa?

MR. RENDALL: Yeah, we had a question over here.

TASK FORCE MEMBER WINDHAUSEN: Yeah, it's quite impressive the work that you've done on this regulation. And I just wondered if you could describe for us a little bit more about your approach and level of enforcement for these regulations.

MR. RENDALL: Sure. What we have done is to provide funds to our division of enforcement so that they can enforce these laws. And exactly how we've done it has varied over the years. We've provided the equivalent of funds for one full-time equivalent be spread out across the state. We also have one enforcement coordinator, so we pay for the amount of time he spends on those issues. He comes to all of our staff meetings of all of our programs and other events, and helps coordinate amongst the state. And we have an enforcement of plans. So every enforcement district, which I think there's 18 or 20 of them in the state, has a precise number of hours they're supposed to accomplish in a year working on this and priorities. So whether it's to try and focus on boats coming out of infested waters in some parts of the state, or it's going in non-infested waters, or checking on commercial sites to see if they have snake heads or Asian carp or something else.

So we have that laid out in a several-page plan by each district. And one of our problems is that we are short on enforcement officers, and it's a chronic problem and we could use more help. But this way we are getting targeted effort, and we spread that out during the summer. Any other questions?

TASK FORCE MEMBER WALLACE: Jay, I was wondering could you describe a little more about the classification system that you use in Minnesota and the process you go through to put things in the different classes and where do they appear? Do they appear in the statutes, species appear in the statutes?

MR. RENDALL: The question was regarding our classification system protocol and format. And the statutes lay out the categories and have some basic things that we have to consider as we classify the species, such as the likelihood that they would naturalize, the likelihood that they would escape into the wild if they were in the state, the amount of damage they might do and several things such as that. And then we as a state agency through administrative rulemaking put the species on the lists. And we can do that either through emergency rule, for example, if something else showed up and we wanted to respond pretty quickly, we could do that in a short time. Permanent rules take longer. So we we've put a number of these species on the list. We have several aquatic plants

and several birds. This is not just aquatic. This is for all wild animals. And we're in the process of doing another set of them right now, and we're putting the snakehead on it through emergency rule as a temporary step.

We also might be interested in this particularly from APHIS. We added, not by name, but by reference to the federal law, the federal noxious weeds that are aquatic, so that if you add or detract from your list, they'll automatically be changed in ours. And I was thinking about if we should do that with injurious wildlife. That would be another one that we hadn't thought of before. But that way when there are changes at the federal level, we'll automatically be at the same - at least those species plus more. And we found that that's real helpful, because some of the species like salvinia have showed up in our state, and that retailers are selling them for water gardens and the APHIS people really can't address it if they didn't come from another state. So by having putting it on our list, we can help and we can make sure that they get rid of those plants. It also, causes a little bit of a problem with some of them that probably couldn't naturalize in our state.

And so we use different approaches. One is the consistency at the federal level. Obviously this is something we don't want in the nation, and we want to be consistent with whatever is done in that way. But also there's nothing that would prohibit someone from taking one of these species, whether it's water, spinach and salvinia and put it somewhere like the Mississippi River and then go down to Missouri or Louisiana and be a problem there. So we're trying to look out for our neighbors a little bit and our friends across the country.

TASK FORCE MEMBER WALLACE: Yes, just two other questions. How big is the aquatic species classification and the identification of various species - how big of a staff on the rule - not on the enforcement.

MR. RENDALL: Well, I worked hard on that and we have couple of staff that it's part of their description. So we probably have one-plus positions that we've done on the risk assessment and risk reduction, you know, other than just the typical public awareness. But people that can do the risk assessments and, for example, we did one on the exotic earthworms a year ago. Actually got some Fish and Wildlife Service money to do that. But they're in the process right now looking at several of the species, and actually some of the federal risk assessment on snake head would be very valuable. That would save us a lot of work to put that in a permanent rule, but that's what we have one total person plus whatever I spend on it.

TASK FORCE MEMBER WALLACE: The resources are a concern everywhere, both the state and federal level. At the state level how much involved is what we call anyway the state plant regulatory official on the agriculture side with the DNR in enlisting and enforcement?

MR. RENDALL: Well, we both -- we have a sort of distinct, different responsibilities there. At least this is the way we divided it up for legislatively or statutorily or just agency agreement is that they deal with the terrestrial plants and the plant pests. And we're dealing with aquatic plants and the other wild animals and those sort of things. And we're trying to work together. And we have our differences, but we also have Invasive Species Council that they and I co-chair, so that's been really helpful. And there is a little overlap, but we're trying to work together, and biological control is probably one place we work together well. We have a memorandum of understanding our agreement, and that we'll work together on some species and we'll take the ones that are more aquatic or natural area problems and they'll deal with the agricultural and some of the other areas. But there's some that are problems like spurge both in natural areas and in agricultural and that sort of thing.

TASK FORCE MEMBER WALLACE: They're subject to the same statute, though?

MR. RENDALL: No, actually they have separate statutes. What I showed you in that classification is for aquatic plants and animals. They have a noxious weed law and then about a year ago there was also a plant pest law. There are some gray areas there that's very broad and in my opinion, it could be a little be refined.

TASK FORCE CO-CHAIR PARKER: Okay. Jay, it's a quarter after 11, which means your time is up; however, we did talk briefly about having you spend a few moments talking about the results of a study from related to the barriers. I'd like to get a heads up, yes or no, from the members before we move forward on that, because I do realize that people have some schedules to meet. So shake your heads up and down if you want Jay to spend a few minutes doing this. Up and down. Okay.

MR. RENDALL: And I'm going to skip through a whole bunch of things just to go back right here. Okay. We hired a consulting firm and an engineering and biologist firm to do a study for us. The U.S. Fish and Wildlife Service and the Minnesota DNR paid for it. And we wanted to know what we could do in the Mississippi River to keep from having the carp spread up into our waters. And you can see, we've got a lot of duplication between people here. This is one thing I wanted to show you. I don't intend for you to read this, but there's a big matrix in the report that shows the different types of potential barriers - physical or behavioral. And one column shows the effectiveness and one column shows the costs. And the costs range up into the millions of dollars for the effectiveness. None of them really get to 100 percent. Several can be combined, and that's what was recommended to be used along with existing lock and dams. There's the electrical things that I'm going to talk about and acoustic bubble rays that have some potential. The Illinois Natural History surveys is working to refine the frequencies that might work on that.

All right. Well, over on the top you can see the little dots. That would be where some of these technologies could be used to keep the fish from going into the lock areas. So this is the lock right here, and try and deter the fish from going in there. And then sometimes the fish might be able to go through here in the gates if they're lifted up for floods. So some sort of a sound or other method here. And then what they pointed out, which I think some of us probably didn't think about and someone else in the last couple of days brought it up, is if we get all of these fish swimming up the river and they all stop here, you're just inviting them, like, in Chicago to wait to go through. So what are we going to do about all of these fish? And this is where Dr. Little's idea of the pheromones would come into play. We want to attract them somewhere else and then harvest them and get them out of the river so we deter them from the one area and attract them somewhere else and then harvest them.

And then that would keep them from stacking up there. And this is what was recommended. You know, this sort of thing we'll be discussing when I get back with the Fish and Wildlife Service in the other states, and hopefully be coming to the Corps of Engineers and the Fish and Wildlife Service outside of our region to ask for help to implement something like this in a couple of locations. And I'll just quickly go there. They recommended several places. The silver carp are up in this area right now, and the big head are probably up in this area. We call them individuals up here, but the idea would be to take some of these that flood the least and enhance those lock and dams to try to keep from to Wisconsin as well.

And if they get past those places, maybe move up to some other places or like the very unique St. Croix River where there's a very rich mussel population of threatening endangered species. So I'll leave it at that. These are some ideas that were presented. And this whole report is on our website - the whole PDF file is out there with the DNR, so you could go to that or we would provide the link for the notes or whatever.

TASK FORCE MEMBER NYGREN: I don't have a question for Jay, but wanted to talk a little bit about the Mississippi River Basin states. And kind of the way it looks to me, if you allow me to kind of summarize. I think there's three major things that we're really interested in seeing happen. But one is we need funding for emergency response. We need to get that in. That's a must-do. The other is we're still urging some prevention of the bad apples coming into the states. We think that's a high priority also. And then the other one that we talked about and that is the how sad the situation with the electrical barrier and the questions what else is going to be affected. I think the group needs to take that on. I think the time is short. There's not a lot of confidence, and that the barrier is going to be affective. I think we need to be prepared for an emergency response there. And I think those are probably the big issues. If somebody else wants to throw something else in -- I think -- from the Mississippi Basin standpoint I think those are the ones that are most concerning to us right now.

TASK FORCE CO-CHAIR PARKER: Any comments on that?

MR. CHAPMAN: Just a second. I'd like to comment about the barrier stuff. I've heard that a few fish get past these things and it's all a waste of time. And I've thought about this a lot, as you might imagine. The grass carp has never been able to pull it off in all the years I've been here. There is a high reproducing population up in that part of the river, and there's been a few animals who have shown up here and there, but the thing about it is even if these fish are able to get past the barrier and there's a good chance that they may not be able to reproduce up there. But if we don't have barriers in place, they're going to migrate, so we're going to have those fish one way or the other. So even if we have the odd fish getting by the barrier, these barriers are very likely to be important. There's still a

really good hope that these barriers will be really useful. And I just wanted to bring that up, even if there is a potential for a few animals to get by.

MR. RENDALL: I assume that we're all done with our presentations. I just wanted to thank the Task Force for coming to the region to listen to our concerns and our recommendations, and to hear some of these talks. And I appreciate being able to meet with you, and hopefully we can do it again.

TASK FORCE CO-CHAIR PARKER: Any comments or questions from the Task Force members on the presentations? [No response.]

TASK FORCE CO-CHAIR PARKER: I heard some great things. I think we all did, and both Doug and Mike summed it up. And I hear a call to action from members of the Task Force. One thing Mike said that made sense was that we need to look at our own circle of influence and see what kind of power we have as individuals to do more and be more ourselves to help address these concerns. I think Doug did a good job in saying this is an emergency situation and that we need to look at prevention as well as more funding, research, as Sharon had said earlier. A rapid response seems to be something that we need to take into consideration, because of the urgency of what's actually happening. Did I miss anything from that discussion? [No response.]

TASK FORCE CO-CHAIR PARKER: I think our Asian Carp Management Working Group and perhaps our outreach folks ought to get together with our staff in Washington to see what kind of advice they could give to the Task Force in terms of next steps. That might be the best way that we can address this as a group, and then perhaps have a bigger discussion about where do we go from here in terms of our roles and responsibilities, if any, on this issue. Do you all agree or disagree? Agree, shake your heads up and down. Pass this on to somebody else for a while. Shall we celebrate Jay and his wonderful team for giving us a lot of great information? [Applause.]

TASK FORCE MEMBER WILSON: One thing that Mamie and I talked about during the break is that we have all of the federal agencies that actually regulate things here represented in one way or another that would be ANS related. And I think we need to get a list together of what do those agencies regulate, and then what's on their list now; in other words, what is prohibited. Because I know we all get calls that say, okay, I want to do this. And my response may be, well, I don't know anything about that, and it's not under the regulations that I cover. Who covers it? I would like to have a list to go to and be able to find out who covers it and to provide that person with that. And I think it would be a value to all of the Task Force members to have that. And then the second part of that is the states. Because some of the states have already put together, you know, lists of things that they are going to regulate in one way or another. And I think it would do well for the ANS Task Force to have those things from the states that do have such lists together in one place, you know, so that all of us could have that information. We could use that information both when questions come up because we'd know where to send that person if they were talking about bringing something into Minnesota or Vermont or wherever they were wanting to bring something in. We would know who in the state regulated those types of things, perhaps, and then what was on the list. And we could direct the person to the proper authorities if it was a state-regulated subject or item.

TASK FORCE MEMBER ZAJICEK: Everett, NASAC runs into this where you grow a fish in some state and you want to move it to another state, can you legally pass through all of the states in between? And it's an impossible list to keep updated, because states may take emergency action for very good reasons. But we did put together a list and maintain it of contacts of each state where you can rapidly get that information. And I'll send you the web address for that.

TASK FORCE MEMBER WILSON: Thank you. Yes, Joe.

MR. STARINCHAK: We're going to try and tackle that as part of the aquarium campaign and build that in as a functional list and we're working with Paul on that. It's a valuable piece of the pie absolutely. And, you mentioned a call to action and we all have different networks and we address different aspects of these problems from our different agency perspectives. One of the calls to actions should be an agency constituent mobilization. We have a lot of restrictions on what we can do as federal agencies in terms of lobbying. We can't lobby Congress, but our constituents can. If we educate our constituents about this, then they can go and speak on our behalf.

TASK FORCE CO-CHAIR PARKER: That's a good point.

TASK FORCE MEMBER WILSON: Thank you, Joe.

TASK FORCE CO-CHAIR PARKER: Okay. I'm going to move on, on the agenda here we have an opportunity for public comments at this time. There was a public sign-up sheet that was out front and is there anyone signed up for public comment?

MR. MACLEAN: There are none.

TASK FORCE CO-CHAIR PARKER: There are none. We just saved a little bit of time on our agenda here, so we will move on to reviewing the action items from the meeting.

REVIEW OF MEETING ACTION ITEMS – *Everett Wilson, Acting Executive Secretary, U.S. Fish and Wildlife Service*

TASK FORCE MEMBER WILSON: The executive secretary, being the acting, gets to deal with the action items from this meeting. We'll go through these fairly quickly. And if you have anything that you'd like to say about them, certainly let us know and my able recorders here will get them down. We may miss some, and if we do miss some, we'll hopefully pick them up on the notes. So, on to the action items from this meeting:

- Strategic plan discussion. I think those were establish the research committee and the dates that followed, establish the detection and monitoring committee and the dates that follow.
- The Task Force members are supposed to send suggestions for membership in the detection and monitoring and research committee to me. You can send them e-mail. You should have my e-mail in the packet. If it's not, it's real simple. It's everett_wilson@fws.gov. So send those to me, please, by the 9th of June.
- Continued strategic plan discussion: We discussed designating a member of the ANS Task Force as a liaison to each of the committees by October 1, 2004. We'll get some more information about what committees are out there and what ones need an ANSTF liaison. It need not be the Task Force member. If you have somebody on your staff that you think would be appropriate for that, that would be fine and if we end up with more than one more interested person in each of those then we'll decide who should be the liaison.
- Provide agency ANS budget numbers to the executive secretary in a timeframe that will be consistent with the NISC request. I would also like to see from some of the agencies that are ex-officio members. I'd like to get some of their numbers too. I think that would be very interesting and very helpful for us. And eventually we will be asking for some narratives from each of you to put into an annual report, which I think is supposed to be produced by December of 2004. So it will come out hopefully in a timely manner with the request for a written summary of what you've accomplished this year. And from hearing what's going on, there's a lot being accomplished so that may be a pretty thick report. It'd be great if it was.
- We need to constitute and give a charge to the strategic plan interim working group. There were some members named to that. Bill Wallace was going to chair it and Sharon Gross, Kathy Moore, Dean Wilkinson and Paul Zajicek would be members. And we will probably want to have a Fish and Wildlife Service representative on that, too. I can't tell you who that will be.
- We're to give a charge to the new and existing committees to review goals and objectives, develop performance metrics and provide feedback on the strategic plan. And, you know, a lot of the existing committees actually have a charge, and we probably just need to go back and review those. And as Sharon pointed out in the strategic plan, each of the committees has specific things that are outlined that they need to do. We just need to go back and review those and make sure that the committee understands when they're formed that those are the things they need to focus on.
- Prevention Committee: The Task Force is to send a letter charging the Prevention Committee with exploring and resolving issues associated with risk assessment. The Task Force will work with Paul Zajicek to develop the letter. So we'll get that done in a fairly quick time. And I'm going to talk to Marshall and Paul. I think we'll probably hold a teleconference to get a little more specific about what's going on.

TASK FORCE MEMBER WALLACE: Everett, that applies to the risk assessment process, not to any particular risk assessment, right?

TASK FORCE MEMBER WILSON: Yes. It should be the process. Okay, more action items:

- Communications and Outreach Committee:
 - Joe is going to address the navigability issues associated with the stop aquatic hitchhikers website and the ANS e-mails.
 - The economic impacts report:
 - The Fish and Wildlife Service will develop a one-page summary for Task Force members on the economic report once it's ready for release.
 - Fish and Wildlife will consider the Task Force opportunities related to the report, and will initiate an internal review by the economists on staff that haven't really seen this and we can institute a peer review through them of the report. We actually have a contract where we have to do that, so we will do that.
 - The webpage: We charge the committee with website redesign. And I didn't give a timeframe on that, but I can assure you that you will have something before you to report to you by the next meeting by November, and will be well along by that time hopefully in doing that.
 - You were asked what to let Joe know by the end of 5/26 who you will have participating in the web rework. So far we have Mike Roberts from the Corps of Engineers and Tina Proctor from the Service. I'm going to determine the timeline for the website milestones. I'll be sitting down with staff and talking about that, and we'll get that back out to you real quickly.
- Regional panels:
 - We're going to look at how we can set it up so that we can have joint meetings with the regional panels. We think those are very good and we accomplish a lot more when we can do that. So we're going to talk about how to do that.
 - You're supposed to e-mail me, again, specific recommendation requests of the Task Force. You know, if you have something that you need the Task Force to do, send it into me and we'll get it on the agenda or we'll deal with it in teleconferences. If it's something that needs to be dealt with real quickly, then send those to me. As soon as we have a new executive secretary, I'll let you know who that is, because my workload may be a little overwhelming.
 - But I have good staff, so I'm sure we can handle it.
 - We mentioned, I think, at the last meeting to refine and provide standard operating procedures to the regional panels, and we will do that. We have those that have already worked some on it, and we just need to finish that up and get it back out to you all. So we will do that for the regional panels.
- The Task Force is going to work with Al Cofrancesco to generate a letter concerning the dispersal barrier, and we have anticipation of the letter coming from the Corps on that.
- We'll address the needs identified by the working group once we receive the e-mail on caulerpa. Oh, ballast water, BWDP.
- The Task Force will address the needs identified by the Ballast Water Demonstration Program once we receive the e-mail. That's one that's really important, and I certainly look forward to addressing those needs.
- Asian Carp Working Group:
 - Provide recommendations for the next steps in our Asian Carp Working Group.
 - Develop a list of what the Task Force agencies and states regulate and what is on the list. And given what, you know, what Paul said, I mean, they were up here typing while he was. We'll work that out. But I think that it would be really important for the Task Force at least to know from the agencies that are sitting here what do you regulate and how do you regulate it, even if we don't put the list together.

AUDIENCE PARTICIPANT: We have some of that information, not the specific species, but through the National Invasive Aquatic Nuisance Species survey that we did for international. We've got some generalized information with respect to that.

TASK FORCE MEMBER WILSON: Yeah. Maybe we can put that together as kind of a starting point and then give it to the Task Force members. Do you have anything that you need to add to this? And then we'll put a list together and get it back to all of the Task Force members and the general public. I don't have any problem with releasing that to the general public that comes to the meetings.

TASK FORCE CO-CHAIR PARKER: Everett, on the Asian Carp Working Group, that action item is basically saying where we could provide some leadership. But I think we should also include the Mississippi River Basin Panel to that list as well.

TASK FORCE MEMBER ZAJICEK: Next week NASAC is holding its annual meeting. And so I'll ask the group if they can help out if they know of any sources of regulations of states, too.

MR. RENDALL: I think there's been several - in fact, Cindy Kohler from USGS was one that had started one. And we were talking about it at the Mississippi River Basin Panel to hopefully fund an intern so she could continue that. And so we could coordinate so we don't all do the same thing and then, you know, have three different versions when we're done.

MR. MACLEAN: There may be something that the Northeast Regional Panel did. I don't know if it was what they regulate or a list of some laws, but they did something that might be helpful.

TASK FORCE MEMBER WILSON: Well, we can chase that down.

TASK FORCE MEMBER NYGREN: Would there be penalties for those who violate the regulations? In most states I don't think it's not much more than a Class C misdemeanor, which is most states is not much more than a traffic ticket.

TASK FORCE MEMBER WILSON: We can look at that. I got through them. Any additions that you can think of now? I assume we have a recorder, and if we missed anything, I think we can possibly pick it up from that. Thank you for coming. I'm sure Mamie will have a few words, but I've been very impressed with this meeting. And I think we have accomplished some things, and we're going to accomplish a lot more. Thanks.

TASK FORCE CO-CHAIR PARKER: Thank you, Everett. Typically the fall meeting for the Task Force is in the Washington, D.C. area, unless there are reasons that we don't know about, the Fish and Wildlife Service staff will prepare for the next meeting in the D.C. metro area during October and November. At this point we're looking at the week of November 15th. In the spirit of rolling up our sleeves and using these meetings as an opportunity to come together and get some work done, we are proposing that we expand the meeting to a three-day meeting. So think about it and mark this week on your calendars, and we'll let you know. We do have some potential meeting topics. The strategic plan, in terms of implementation, more follow-up and the webpage and an update again on the NAISA and a report on success stories and several other agenda items will certainly surface, including I'm sure the Asian carp issue as well, and snake head I'm hearing, too. So we will be available to do that. I would like to, before we close, that we do have a few minutes. I'm going to go around and ask each of the members of the Task Force if they have any reflections or any comments, any last statements to make as we close the meeting. I'll start with you, Lisa.

TASK FORCE MEMBER WINDHAUSEN: I don't have anything other than thanks for everyone's participation. It was nice to meet everyone, and I'm looking forward to continue working with you all.

TASK FORCE CO-CHAIR PARKER: Welcome again.

TASK FORCE MEMBER ZAJICEK: The fall meeting in D.C. seems to be kind of mandatory, but I think it's a really great idea to coincide with the panel meetings. This is a great interplay, and we have a number of panels. So we can see a variety of the issues. And I encourage that.

TASK FORCE CO-CHAIR PARKER: Okay.

TASK FORCE MEMBER ZAJICEK: And the Mississippi River Basin did a great job.

TASK FORCE CO-CHAIR PARKER: They did a wonderful job. Let's celebrate them one more time. [Applause.]

TASK FORCE CO-CHAIR PARKER: Would any other Task Force members like to comment on that statement, in terms of the joint meetings with any of the other panelists also. Yes, Larry, anything?

TASK FORCE MEMBER RILEY: Just a quick comment and thank you for the opportunity. One of the things that Jay raised in his earlier presentation was some specific attention raising with fish and wildlife agency directors within the international association. You and I both attend those meetings, and there is a newsletter that goes to directors about three times a year specifically on invasive species issues. But what we will do is make sure that we raise that attention again. And there is an ad hoc invasive species advisory group that has been assembled within the international association. And its specific function is to raise that attention. But we'll need your help, too, and the help from others within their states to keep raising the issue from within their state for their state director.

TASK FORCE CO-CHAIR PARKER: Yeah. And we can talk about agenda items on the Fisheries Committee, too. Maybe something that would be of interest to everybody. So think about that.

TASK FORCE MEMBER RILEY: Yes, ma'am.

TASK FORCE CO-CHAIR PARKER: Okay. Yes, Whit?

TASK FORCE MEMBER MILLER: I'd like to thank the Task Force for inviting the Smithsonian Institution to join. It's been very interesting. We spend much of our time doing research and other activities on the east coast and the west coast, and don't have so much of a chance to spend time in the Midwest. So it's been very interesting to come and listen to the various panels. I'm also, as I sort of look back over the last several years that I've been involved in this kind of thing, I'm very impressed by the way the various regional panels have filled in the gaps. It used to be sort of the Great Lakes and the Gulf states and the western panels. So I'm very encouraged to see these other regional panels and see just how active they are. It's wonderful.

TASK FORCE CO-CHAIR PARKER: Great progress. Thank you. Marilyn?

TASK FORCE MEMBER KATZ: Yes. I would echo that comment. I'm really happy to have had this opportunity to visit this part of the country and to hear about all the activity going on at the state level. And I think at the federal level we have a lot to learn from the states. And I think that it's very useful and gratifying to be able to move in the direction that some of the states have. So I thank you for that. And I also want to be sure to follow up within EPA and to connect up with people here who have raised issues related to NEPA and emergency permitting for having to do with pesticides or chemicals for which the regulation might be an obstacle through rapid response. I think we can try and make some responses and work on that, so I intend to do that.

TASK FORCE CO-CHAIR PARKER: Yes, Kathy.

TASK FORCE MEMBER MOORE: I think this today's presentation with Jay was certainly not the first time that there was the point made that there isn't an all-inclusive invasive species law out there. And I think we have to accept that as a reality, and that the one law fits all - it's just not a possibility. The fact is we're a government that reacts to focusing events. And I think we need to acknowledge that and position ourselves to be able to step off in focusing a bit. I know in the Coast Guard's Outreach Program there is a discussion going to start to think about maybe positioning ourselves so we can step off for the focusing event to help our outreach effort; in other words, wait essentially until something very predictable happens and then use that as the momentum to do an outreach program.

And the reaction from snake head was up and down whether it was John Q. Public or all the way up to the legislators. I think it's something we took advantage of and I think we can continue to do that. And the other point I wanted to make was that writing regulations even with appropriate legislative authority at the federal level is extremely challenging. And I'm whining here, but I think we ought to consider inviting some economists into these meetings, because economic analysis in a complex aquatic environment and in trying to step past anecdotal accounts of impacts in very specific sectors and move towards an ability to do some predictive modeling of impacts and potential impacts is really, really, really important and it's very, very difficult, very complex work. But you're not going to have an easy route to regulation until you can start to predict the benefits of economic benefit of a regulation because there's going to be costs. And I think it's one missing piece of the pie. And I would encourage those of you that are on the ground in terms of assessing impacts to start conversations with maybe some economists and start talk about the fact that there's a void in economic predictive modeling. And there is no capability right now.

And right now our approach is entirely to summarize anecdotal results and make some predictions. That's difficult, but that's all we have to work with right now and we're probably a decade from really doing good economic modeling. But it's a need and I think it's a void that needs to be filled and I'd like people here to consider reaching out to some of your economists' expertise and start considering developing it because we need it in terms of the regulation activity.

TASK FORCE CO-CHAIR PARKER: Do you want to be brief?

TASK FORCE MEMBER KATZ: Well, I think just in connection with that last point, at EPA we are starting to look at ways of estimating economic impacts from aquatics. And we actually are about to begin that work, and we hope to reach out to the universe, to academicians, to state agencies, to economists across the government. Because we're very aware of this gap. And regulations can be held up or stopped without that kind of information, so we're beginning that effort.

TASK FORCE CO-CHAIR PARKER: Okay. Bill, any final words of reflection?

TASK FORCE MEMBER WALLACE: I'd just like to thank Jay personally, and the other members of the panel for being very gracious hosts and a very informative meeting. And echo what Paul said about trying to see what we can do about getting out to the other panels and meeting in other places than Washington more than once a year, because I think it's been very valuable. I would also like to thank the Forest Service guys for coming to the meeting. When I make presentations or make comments, I'm usually speaking from an APHIS perspective. But I'm really here to speak from a USDA perspective and particularly from the research agencies from the USDA -- or Forest Services, CSRG. I won't tell you what that stands for - that have important aquatic invasive programs. And hopefully we'll have more of a presence from those agencies in the future.

TASK FORCE MEMBER GROSS: I'd just like to echo what some people have said about the regional panels. I don't think we realize, you know, how short of a timeframe it's been. In 1999 or in 2000, we only had two regional panels. We added the third regional panel in 2000, the Gulf of Mexico. And there's basically been a regional panel every year since then. In addition, there are the State plans have added value to the Task Force and certainly the activities of the Task Force. And I think made the Task Force more beneficial and the activities more focused on the ground activities. The first ten years of the Task Force, were more, focused on the concept, now it's more capacity building and on the ground. And I think that's a really good thing.

TASK FORCE CO-CHAIR PARKER: Good. Yes, Karen?

TASK FORCE MEMBER McDOWELL: All right. I don't have anything new to say. But again, I'd like to say thanks again to the Mississippi River Panel for hosting this.

TASK FORCE CO-CHAIR PARKER: Doug?

TASK FORCE MEMBER NYGREN: Just thank you for the opportunity to participate.

TASK FORCE CO-CHAIR PARKER: Mike, do you have a final word?

TASK FORCE MEMBER RIPLEY: Yeah, I just want to thank you all for accepting me on the Task Force, and say that I am proud to be here representing the Native America Fish and Wildlife Society and the tribal fisheries of the Great Lakes. And I want to say that there are so many native peoples on this continent who are dependent on the fish and wildlife resources, and so much of that has been destroyed. And along with it the culture as well. And this is a very important topic to us. And also I want to say that we do need help in assessing the economic and cultural impacts of the species. It's very important, as Kathy said, so if there's anybody that can kind of, you know, help us out with the economic issues assessing that, we would appreciate it.

TASK FORCE CO-CHAIR PARKER: Okay. In my former life up to a year ago I was the regional director in the northeast, and I would stand out a lot of mornings and greet the employees as they walked in and say, thank for coming and, more importantly, thank you for staying. So today I want to say to the members, as well as the

audience, thank you for coming, thank you for staying. And I'd like to entertain a motion for the meeting to be adjourned.

TASK FORCE MEMBER KATZ: I so move.

TASK FORCE CO-CHAIR PARKER: So moved. Second?

TASK FORCE MEMBER WALLACE: Second.

TASK FORCE CO-CHAIR PARKER: Second. The meeting is adjourned.
[PROCEEDINGS ADJOURNED.]