

**100th Meridian Meeting
Las Vegas, NV
Jan. 17-18, 2006**

Action Item: Get information from the training project onto 100th meridian web site. Add other western states.

Action Item: Get people involved who have worked with messages about ZMs in the east. What has worked best? Will it work in the west? Paul – we need to build more evaluation of our programs to find out what is working.

Action Item: Put together Work Group to develop an assessment format to measure effectiveness of 100th Meridian activities projects. Bill Zook/Stephen Phillips, Eileen Ryce, Lynn Schlueter, Robyn Draheim, David Britton, Don MacLean, Tina Proctor, Jeff Herod. Robyn will be the chair.

Create a form on-line where members could fill in

Create questions within the next two weeks

Action Item: Create computer based wizard for rapid response plan – Dave B and Mike G

Action Item: Take all action items, take tasks that come from follow up questionnaire and look at original goals and tasks. Look at what still hasn't been done and decide what needs to be done or what should be removed. Paul, Don M. and Jeff H.

See Action Items for Participants on pages 15-17.

Tuesday, January 17
Moderator – Bob Pitman

Colorado River Team

Don Archer - UTAH DWR

DWR distributed 65,000 brochures to marine dealerships, sporting goods stores, DWR regional offices, state parks visitor center and entrance stations and included in Parks and Recreation's boating safety packets. Fall ZM inspections on 35 different waters throughout state of Utah. Utah now has 12 different watersheds that have NZ mudsnails. DOW developed a new sign for waters with NZ mudsnails with suggestions for cleaning gear to avoid transplanting NZ mudsnails to new waters.

Fisheries managers are developing HACCP plans (5). All 12 hatcheries have developed HACCP plans. Parks and Recreation Dept. has developed 47 kiosks that have a panel about ANS issues.

Three fish species have been transferred illegally. Two waters have been found to harbor the exotic zooplankton *Daphnia lumholtzi*. *Melaonides tuberculats*, red-rimmed melania and apple snails have been found in springs spread throughout the great basin.

Didymosphenia geminate, or rock snot (diatom) is widely distributed along in the south slope of the Uintah Mountains. Bullfrogs have emerged as a major issue in the aquarium trade.

Mark Anderson – NPS, Lake Powell

8-9 artificial substrates are checked monthly through spring – fall.

At all developed accesses to lake a trailered boat has to stop at a booth. Each person is asked if they have used their boat east of the Rocky Mountains in the last 30 days. If the answer is yes, in an infected state or province, they are given a prevention packet, which includes a map to washing facilities, educational brochures, and a coupon for a free wash. Lake Powell has had this program since 2001. This year, they passed out 45 coupons and got 45 boats washed – 100% compliance. The specific questions are now built into the automated fee machines; boats from infected states get a receipt to get their boat washed. It is illegal at Lake Powell to put a boat in the water that fits the profile which isn't professionally washed. They have developed a sign to meet NPS sign standards which has NPS emblem at top. Mark has money this year to have signs made and put them around launching areas. They have also created a sign that alerts people where New Zealand mudsnails are infested. They are working to develop an interpretive display to raise awareness of ANS. Mark developed mailer inserts that will be sent out by concessionaires and businesses in town.

Wen Baldwin – Lake Mead Boatowners Assoc.

Flyers about ANS were put into billing statements from all the marinas. These are quite successful and they have received positive feedback. Stickers are distributed with a local number to call if people see anything suspicious. Wen says they need a number he can call

if he finds anything. Posters are mounted at all the marinas. He got signs from Utah DOW and put the Lake Mead NRA logo on them. They are using substrate sampling at 6 locations. Wen is also taking plankton samples. Anything that comes in by commercial hauler – must have a permit and must be inspected for invasive species; e.g. barges with cranes. Training classes are being held for entry station personnel and park rangers so they know how to identify high risk vessels. Entry stations are not handing out literature so Wen is still pushing on that front. LMBA has gotten excellent support from NPS.

Wen suggested that everyone get information to Dave Britton about infested lakes and asked that they be put into alpha order

Brian Moore, NPS, Lake Mead

They have money to purchase 2 boat washing stations, funded by Public Lands Management Act. Three more units will be put in place next year. NPS does not have entrance stations at all locations like they do in Lake Powell. Hydroblaster units are self contained with gutter system so the water recirculates. This system does not require a sewer system. Hydro Engineering in Salt Lake City is the company and the units cost \$155,000. The military uses them in Iraq for decontaminating vehicles and planes. They are permanent, but can be moved by forklift and flatbed trucks. There are two different size pads that will fit together so they can take the biggest boats. Pictures can be seen on the web site.

Anita Shaul – Nevada Dept. of Wildlife

NV DOW has produced regional aquatic angler maps which contain the Stop Aquatic Hitchhiker message. Also, 60,000 tri-fold brochures went out to registered boaters with ANS message. This mailing will continue each year. A New Zealand mudsnail survey will be sent out to licensed anglers by a UNLV grad student to determine a possible economic impact. NV DOW Will be putting more resources into education this next year. Habitattitude messages will be used – also Don't Turn it Loose targeting classrooms. They are distributing stickers about not letting lose live bait.

Marc Dahlberg - Arizona Game and Fish Department

Arizona now has golden alga (*Prymnesium parvum*) in three major reservoirs on the Salt River. *P. parvum* produces a toxin that affects gill-breathing organisms such as fish and clams. There are also twelve smaller lakes that are infected, ten of these lakes have a hydrologic connection to the Salt River, and the water source for the other two is ground water. Golden alga thrives in high salinity, cool water and has effected (in some what order of susceptibility) threadfin shad, bluegill, smallmouth bass, largemouth bass, walleye, channel catfish, yellow bass and carp. The first mortalities are seen in March and the kills continue through June. Golden alga is difficult to identify due to its small size and mobility, a minimum of 400x magnification with a phase 2 contrast is required for proper identification. The cost to treat just one large reservoir (a temporary measure) would cost in excess of \$200,000 just for the chemicals.

Joe Millosovich – CA Fish and Game

Their main problems are giant salvinia and parrotfeather. Signs are at all the launch ramps. He has been talking to different user groups, e.g. turtle clubs.

Columbia River Team

Robyn Draheim – Oregon, Portland State University

Robyn is working with Oregon Sea Grant on a project in response to elementary science curriculum where classrooms get crayfish, aquatic plants, snails but they aren't told what to do with them. A parent noticed rusty crayfish and Brazilian elodea which are illegal to release in OR waters. The project gives specific information to teachers to add an invasive species section to the curriculum. The brochure is complete – they will be testing with some classrooms and then they will be launched. The brochure does not have to be used with this specific curriculum. PSU putting educational database on line with publications available – should be done in the next year.

OR has New Zealand mudsnails in Deschutes River, an important fly-fishing area. Densities 50-100 per sq/m.

Mary Pfauth, PSU

Mary coordinates the ZM sampler program from PSU. They are now adding veliger sampling to the database too. Monthly plankton tows in Columbia River have all been negative so far. There will probably be sampling in Lake Mead and south in Colorado River. They are upgrading the database from ACCESS to MySQL, a more powerful database and works better for web based material. There are 12 or 13 states now in the database. Mary also needs a list of people who can identify “suspect” samples. Paul Heimowitz added that there is a lower Columbia River survey completed, funded by FWS and USCG. Therefore, they will have good baseline for that portion of the basin. The Columbia River Team is doing a booklet about what to look for in the CRB which profiles a couple of dozen key species.

Pam Meacham, Washington DFW

They will be funding 4-6 temporary staff this summer to do boater surveys and they will buy PDA's for each person. They will also be doing veliger sampling.

Missouri River Team

Eileen Ryce, Montana FWP

Completed statewide New Zealand mudsnail survey and found the populations didn't really expand that much. They found one positive fish culture facility which is now under limited quarantine. The Nelson Spring Creek on Yellowstone River stocks mostly in the Yellowstone drainage. Although introducing NZ mudsnails in this drainage will not expand the range, they don't want to add to distribution. The hatchery will not be able to stock west of the divide where there aren't any mudsnails. One state and one private

hatchery are quarantined for whirling disease. A WD positive private facility is shut down. Eileen will be doing annual inspections of hatcheries.

They have an active boat inspection program. The Department got \$100,000 to purchase boat washing systems and will get one permanent and one mobile system. Other good news is that they got enforcement ability from legislature regarding the prohibited species list.

Lynn Schlueter, ND Game and Fish

The legislature passed regulations with fines for moving prohibited species around. There is a short list plus federal list. This year they will develop a law which allows the department to proclaim infested waters.

They found Eurasian watermilfoil in Dead Colt Creek Reservoir on the Cheyenne River, did a 10-ft. drawdown, but the weather has been warmer than normal. Hopefully there will be a deep freeze soon. Their Rapid Response Plan kicked in.

The new director of the agency is Terry Steinwand who had been active in ANS (ND member of the WRP).

While they are doing boater or angler surveys, they ask where did you hear about ANS? Any answer is accepted. The next question is what is the best source? Only one answer is allowed. Mass media is the major source. Also found out that there is a need to focus. No one reported that they heard the TIS message on Lewis and Clark.

Robert Klumb, FWS, SD

They put out substrate samplers in the MO River, looking at macroinvertebrates. No one has seen an adult ZM with all the substrate samplers by FWS and other researchers. Nothing has been found below Ft. Randall and Gavins Pt. Dam. Gavins Point National Fish Hatchery in Yankton has UV sterilizers and protocols for transferring fish, because they take water out of the MO River for transfer. Research on Asian carp as been on juveniles and larval fish for the past two years. Robert created an activity about Asian carps and paddlefish – poker chips represent eggs. Kids really enjoyed it. Robert has the activity written down for anyone else who wants to try it.

El Dorado Reservoir/Arkansas River Team

Jason Goeckler, KS Fish, Wildlife and Parks

In 2005, veligers were found at a mean peak of 85/liter versus the 2004 mean peak of 13/liter. El Dorado Reservoir in 2005, a number which has doubled since 2004. They will be talking to boaters in 2006 and will take live well samples. Cheney Reservoir was found positive for ZM veligers in 2004. Jason has taken monthly samples since then and hasn't found any more veligers or adults.

In May, Chinese Mystery snails were identified in a small lake near Kansas City. Also Japanese Mystery snails were found in a lake in central KS.

KS stocks grass carp – will move towards triploid grass carp in the future.

Education – SAH at every boat ramp in the state. They have Portland samplers in every water body in Kansas which are checked monthly. One power company sent a blurb in mailer in June to 650,000 consumers. New web site = www.kdwp.state.ks.us has ANS section. Concentrated ANS news releases resulted in front page and TV news in Memorial Day weekend. For first time Fishing Regulations will have information on many ANS species.

The U. of Toledo has a database on genetic information for zebra mussels. The Eldorado ZMs don't match anything on the database, e.g. Great Lakes. The contact is Carol Stepian.

Jeff Herod - California strategy for ZM

Federal and state agencies recently met to talk about strategy for keeping ZM's out of the state. They are looking for more money for inspection stations, which are only checking commercial vessels now. They are reviewing the type of information which they can provide to inspection stations. One project involves going to all water groups, canals and pumping stations to train personnel for identification and teaching them about sampling.

Bill Zook, PSMFC contractor

Lewis and Clark Evaluation

- 2002-2006
- USFWS – BPA funding
- Coordinated by PSMFC
- MO Basin and east
- Columbia Basin added
- Huge numbers of visitors didn't materialize, still great opportunity for education

Legacy in MO Basin

- Working group meets annually to coordinate in MO Basin
- MO Basin River Watch newsletter
- Outreach partnership to 25 of 54 marinas in MO Basin
- 8 new TIS with 10+ year life expectancy
- uniform and basin-wide ANS signs created and 300+ posted
- vastly increased number of monitoring stations
- ANS coordinators in every state increased ANS education
- Much more informed public throughout the basin

Legacy in Columbia Basin

- Transformed and energized Columbia Basin group
- Annual Columbia River Basin Watch newsletter
- Outreach partnership to 100+ marinas and resorts
- 1 new TIS facility in WY on I-70 with long-term viability
- Series of new ANS signs and banners throughout the basin
- Expanded number of ZM monitoring sites
- Coordinated ANS sign and monitoring database at PSU

Spin-Offs

- More complete assessment of the monitoring program needs – new emphasis on veliger sampling – possible processing lab at PSU
- Development of new Western States ANS watercraft inspection training program for boating law enforcement professionals
- Vastly increased boater survey data from all western states
- Columbia basin rapid response plan
- More state ANS plans completed and approved
- Increased agency coordination
- TIS/highway sign evaluation study and results
- ANS HACCP training for many state and federal facilities
- Loads of new and re-printed ANS publications

A GAO report featured public service campaigns for government agencies. For Department of Interior, the only PSA which was evaluated was \$200,000 effort. Difficult to evaluate when there is small amount of money involved.

Tina mentioned that this project has gone way beyond what we initially envisioned and she thanked Bill and Stephen for the excellent work and coordination that they did for this project. The benefit is the building of coalitions that will continue to work together after the commemoration is completed.

The TIS evaluation will give us a lot more information about how useful that format is and whether we want to keep using it.

Status of Economic Impact Studies

David Lodge and Jon Bossenbroek, U. of Notre Dame

This study of economic impact in Columbia and Colorado River basins by zebra mussels was partially funded through the 100th Meridian Initiative. Neither David nor Jon could join the meeting. We have not received a final report yet. Bob P. suggested that we create a scientific workgroup to review the study when it is complete.

Rapid Response Discussion

The WRP received \$20,000 from NOAA and the money was awarded to contractor Mike Fraidenburg. Two questions were asked on a blog and several people participated in the discussion. What would we do if zebra mussels showed up in Pacific Northwest? How can we build capacity to respond? Mike facilitated a workshop with interested stakeholders at the Port of Portland where there was more discussion based on these questions and determining next steps. Stephen P. and Paul H. have started working on taking this draft plan farther.

They are still wrestling with next steps delineated in the plan:

1. Look at developing MOUs and permits with BPA or other power companies.
2. How does a basin species specific plan fit in with state level rapid response plan?
3. Involve key public utility districts – develop coordination

4. Develop a notification system – may need to perform a drill over the next year, once a basic action plan is in place.
5. EDRR plans – distill from other ones done around the country

Do we have a cadre of experts who are available at short notice who can identify different life stages of zebra mussels? State ANS coordinators are key personnel who could immediately respond. But in the CRB, there will probably be multiple jurisdictions involved.

Paul agreed to develop a notification system. Once a confirmed report is in – activate two groups which are described on the handout. How will people be notified and how will that be confirmed?

Eight key steps were identified. Each step will need a who, when, and how added to it. A lot of this will need capacity building.

Paul asked the group to discuss capacity building issues.

Lynn – Lessons he learned from Eurasian Water milfoil in the state:

- have to have a group of administrators who are supportive
- turf issue with agencies about who gets notified when,
- Who is going to pay? Everyone asked about this. Even just talking about going to the meetings was an issue.
- Who is in charge of media?
- How fast do we notify the public?

Bill – the issue of funding is a difficult one. It seems we may need a “war chest.” Lynn responded that you have to spend it to prove that it is needed. Question, can a response occur if money is not set aside? Don—NISC is exploring the issue of getting no-year money which can be used for EDRR. Paul – Even if we have \$\$\$, what can be done in response to ZM infestation in a big river like Missouri or Columbia. It is difficult to convince Congress or States to put money aside if there isn’t a rapid response solution. Don – it shows how important the prevention activities are. Wen – money could be set aside and not considered public funds, could be used for prevention and rapid response.

Bob – the Rio Grande and Colorado River basins can use this model to create their own RR plans.

Wen – If there is an eradication situation, aren’t there permits you need for use of chemicals? Paul – in the plan, need key permits and reviews. EPA just came out with a publication about Clean Water Act responses in this kind of situation. NEPA, ESA, emergencies processes. Don has a project that he is working on—checklist on what to do for local folks who find an invasive species. It could be useful for this plan. Paul is creating a short interview form for someone who finds the first specimen.

Anita – People usually want to get an ID on weekend, but the people who can ID something aren't available. How to preserve the specimen is important in these cases.

Lynn – Each step may contain several steps. Some can be done at the same time. Need to know how big the infestation is.

Bob suggested that we set up a confirmation lab with David Britton at UTA.

Anita – It would be good to have examples of successful rapid response. Spartina plan in Washington was tested this summer. Mary found two small infestations but the plan worked well. Appropriate people got notified, WDA dug the spartina out and it is being monitored.

Columbia basin team meets quarterly. Paul would like to do a test or drill of the RR plan at one of these meetings.

Bill Zook – New Sign Campaign Proposal

Bill shared an idea for new campaign based on the old Burma Shave signs. Columbia Basin team will try it as a pilot project in Montana in 2006. People with boats will be interviewed to see if they heard the TIS and signs will be set up and will be evaluated at the same time. A professional ad writer has been hired - \$500.00 for 3-4 ideas for 7-sign sets. Cost less than \$1,000 for signs plus annual landowner lease.

This allows us to compare the use of both messages. Eileen – 5000 interviews in MT, only 4 people mentioned TIS as where they heard the TIS message. Lynn had the same experience in ND.

Wen – question about who tracks where ZMs are. There is a link on the 100th Meridian to USGS database for confirmed sightings for ANS.

Wednesday, January 18

Review of 100th Meridian Initiative

Bob Pitman reviewed the history of the Initiative – authorized by 1996 legislation to create. It is a vehicle to provide funds through FWS to states and other organizations. Database and web site were created. It has evolved over time to create different teams. FWS money has seed money to partner with others.

Moderator, Jason Goeckler

Dave Britton, Boater Surveys

David started by showing a map of the US with zebra mussel distribution. He reported some new populations such as Grand Lake on Cherokee Reservation in OK, 35 miles from Oologah Reservoir, which is infested with ZMs. They found a cluster of adults and haven't found any more since – Feb. 2005. At first ZMs moved downstream. The westward spread is going to move by a different mechanism – such as trailered boats. ZMs in LA could die

off every year because they are constantly getting new stock. Dr. McMahon is doing a study on thermal tolerance because they may be changing to be more tolerant to high temperatures.

Surveys in the west, there is good data from 100th meridian states and northwest. Also, we have good data from northwest because of PSMFC. There are no surveys from CO, but we are now getting some from NM. UT, NV, AZ are mostly from Lake Mead and Lake Powell. There are not too many surveys from TX. We need more information from SW states. David would also like to see boater surveys in Midwest to find out where people go. It is an opportunity to do outreach during the surveys. Also we have boater surveys from Manitoba. The first state in eastern US to report surveys is Massachusetts.

David showed a slide of destinations of boaters from the data up to 2003. Concentration is 100th meridian and northwest because that is where most of the interviews have been done. The next slide is about boater destinations within 40 km of confirmed zebra mussel infestation. David came up with a list of water bodies that high risk. Of the high risk areas 7 water bodies now have ZMs: Lake Francis Case, Lewis and Clark Lake, (below the dams) Cheney, El Dorado, Kaw, Keystone, Grand Lake. The point of this shows the value of the boater surveys. David is currently updating this data to cover 2005. David will put information on the 100th Meridian listserv.

David mentioned that he needs data scrubbing, e.g. destinations in database need standardization – can have 7 names for the same lake. He will be sending the lists to ANS coordinators in states to increase clarity.

Trailer Sticker – Can put the sticker on the trailers with a year on it. These were only put out at places with zebra mussels. We can check on these stickers to see new pathways.

The monitoring database from Portland State U. and other monitoring efforts is now on 100th Meridian web site <http://100thmeridian.org/monitoring.swf>. This information can be queried based on the fields.

Monitoring ahead of a spreading population – the Oklahoma example Brent Bristow

FWS, ACOE, BOR, OSU + others

Brent set up a monitoring network – developed interest among lake managers to educate the public regarding ANS issues. ZMs have been in OK since 1992. 50 big reservoirs in the state. He targeted lakes near current range and in every part of the state, but didn't pay a lot of attention to water quality parameters. They are hiding samplers to minimize theft. They use the Portland Sampler – 2 inch PVC pipes. Deployment sites are photographed and GPS locations are recorded. They are checked monthly by cooperators, March through November. Presence/absence data is reported to ACOE and FWS monthly. Any new locations are reported to USGS.

Results: Kaw Lake – confirmed August 2004, is downstream from El Dorado Reservoir in Kansas. ZMs were first confirmed by plankton tows. Grand Lake initial report Jan 21, 2005 discovered by scuba diver. 15 sample sites there and no more ZMs have shown up. Keystone Lake, immediately downstream from Kaw Lake, first discovered Oct 31, 2005. ZMs were first confirmed on Portland samplers on two different sites.

Brent got good cooperation from lake managers who are concerned about effect on boating recreation. The advantage of Portland samplers is low cost and they contribute to better informed public, increased “buy in” among lake managers.

Message is that these ZMs have rapidly spread through several reservoirs downstream.

Monitoring an unknown population – the Montana example
Eileen Ryce, MT Dept. Fish, Wildlife and Parks

On October 31, 2005 a jar of mussels were left on doorstep of FWS Jordan, Montana office, near Ft. Peck Lake on Missouri River. Eileen was contacted immediately. Inside the jar was a large mussel that was covered by ZMs. In the water, they found veligers and juveniles. ID’s the large mussel as ???– never been found in MT before. The closest population of these mussels together is Great Lakes or Mississippi River. Currently Ft. Peck Lake is frozen solid. There is a 35 mile dirt road from Jordan, which in the “middle of nowhere and beyond.” It is the most popular access site for in-state and out-of-state. Eileen provided speculation about different scenarios.

Ft. Peck Reservoir has more coastline than California with an average depth of 50 feet. Hell Creek Marina burned down last month. The lake is 50 feet down right now. FWP will concentrate activities around that area plus at Rock Creek and Fort Peck Marinas. They will check shorelines; plus they have substrates at the three marinas. FWP has just built a warm water fish hatchery at the dam, taking raw water right out of the lake. ZMs were listed as prohibited last year. One new boat washer will be installed at Hell Creek Marina. (PreFix system). Every boat participating in a tournament has to be washed and inspected beforehand.

Lynn Schlueter, Moderator

Watercraft Inspection Training Status Report
Bill Zook

State of Washington has legal authority to inspect watercraft. Bill thanked Pam, Paul, Wen, and Jeff who have worked together to create this training. States: OR, ID, WA, NV, CA. The objective is to teach how to identify high risk watercraft, inspect for the presence of ZMs, proven suspicious watercraft from being launched and contact appropriate officials for verification and decontamination. Training is divided into 3 segments: total of 80 minutes.

1. background on biology, impacts - 20 minutes

2. inspection – where to look and how to identify ZMs on various types of watercraft and how to decontaminate
3. legal authority – federal, state and local laws that can be used to keep contaminated boats from launching

Becky Larson, a Lewis and Clark law graduate, is the legal intern conducting state by state legal research.

They have also designed an initial meeting before the training to discuss what the supervisors are comfortable with regarding what the legal authority is in that state. They need both legal authority and prosecutors who are willing to accept the cases.

Live Training Event Schedule

Oct. 3, 2005 – Idaho State Law Enforcement

Jan 26, 2006 – Colorado Basin law enforcement conference – Laughlin, Ca

April, 2006 – OR boating law enforcement

Oct., 2006 – WA boating law enforcement

Video/manual will be mailed to 400 agencies in May, 2006 – ask that they give the training. 1.5 credit hours toward continuing education

What was learned from Idaho Event

- Personnel are primarily focused on safety
- Workload is already maxed-out
- Hesitant to take on additional work and is unfunded, making them difficult to engage
- Need to get an important person in the state to introduce the program – next programs will have this.

Participants have to pass an exam. A booklet will be available plus magnifying glass will be given to each person who completes the training.

50-60 minute training video + 20-40 page instruction manual

Total cost = \$13,815 plus mailing costs

Oversight committee: Blaine Parker, David Bergendorf, Pam Meacham, Paul Heimowitz, Sam Chan

Defining and Cataloging legal authorities for use by federal agencies, tribes and states – general discussion

The training project will produce a document about the legal authorities regarding zebra mussels. They need to find a way to update annually. Pam Meacham said NISC has a list of authorities on their web site. Lynn - in ND they are in the process of developing regulation – law enforcement people are involved from the beginning.

If there is an existing agreement between FWS and state for enforcing the Lacey Act, the state can incorporate law enforcement staff, deputizing them. That way, federal authorities don't necessarily have to be involved.

Action Item: Get information from the training project onto 100th meridian web site. Add other western states.

Message Discussion

Paul talked about a recent article (Gobster, Paul H. 2005. *Invasive species as ecological threat: is restoration an alternative to fear-based resource management?* Ecological Restoration 23 (4): 261-270.) Fear tactics work only when geared toward a focused audience with a specific species. It doesn't work so well with general public. Robyn – serious fatigue on West Coast to get interested in ZMs – prevention is continuing. Eileen – doom and gloom regarding whirling disease, which didn't really happen. So they are somewhat burned by that message.

Action Item: Get people involved who have worked with messages about ZMs in the east. What has worked best? Will it work in the west? Paul – we need to build more evaluation of our programs to find out what is working.

Boater Surveys and Outreach east of the 100th Meridian States

Bob – get information from Great Lakes and Midwest to find out where they are taking their boats. Mike Goehle – Lake Erie has turned into smallmouth bass fisheries – boats moving many places from there. How do we encourage states in the east to do surveys? Paul – we could perhaps work with Sea Grant as a partner – to get them to do 100th meridian surveys. Work with states that are already doing other types of surveys – see if we can get compatible questions.

Discussion about addressing other ANS crossing the 100th Meridian

The original strategic plan addresses “zebra mussels and other ANS” moving west. Is our goal about not taking things across the line? Don, the major focus of 100th meridian is about movement of ANS on recreational boats. Tina, we don't want to dilute our focus too much because the funding is so limited. Lynn and Eileen – huge pathway is movement of bait. They are brought in by fishermen. There are lots of pathways beyond recreational boating.

Robyn – stickers that Bob has are good idea, but would like a clear set of rules so we know what it means when we see them. Eileen is concerned that more stickers make the public more upset. David - looks benign – boaters don't know they are only being used in ZM infested waters. These stickers are completely voluntary.

Eileen Ryce, Moderator

Discussion on evaluation of the 100th Meridian effectiveness and team structure

Evaluation is part of the objectives under the strategic plan. Paul, team structure have been organically developed as needed. El Dorado team was formed because of the expansion of ZMs into Kansas and to coordinate efforts with Oklahoma.

Lynn – are we including everyone we need to? ACOE is not putting ANS into contracts with barges being brought into the reservoirs. Each ACOE district is different.

Jeff – CA has benefited from 100th Meridian pilot studies and will be able to use some of the ideas and so it has been helpful to be part of a team and see what has happened.

Eileen asked if the team structure is working the way it has been set up. No problems were brought up. Bill Zook talked about the expense of TIS and learning about whether they are effective. What we have learned from that experience is to build in a concrete evaluation component to projects. Paul – what about developing an assessment format. Do we want to develop that so we can be consistent? An example is, spending time at booths at boat shows. Part of the boater surveys is a question on where people are getting information on ANS. However, there is a flaw because on the PDA, there are mutually exclusive answers.

Action Item: Put together Work Group to develop an assessment format to measure effectiveness of 100th Meridian activities projects. Bill Zook/Stephen Phillips, Eileen Ryce, Lynn Schlueter, Robyn Draheim, David Britton, Don MacLean, Tina Proctor, Jeff Herod. Robyn will be the chair.

Create a form on-line where members could fill in

Create questions within the next two weeks

Don MacLean, Documenting a status report

The strategic plan has been in effect since 2001. Don would like to document what has happened since then, highlighting FWS accomplishments plus what projects which have been done in the name and spirit of the 100th Meridian Initiative. This would include leveraged projects plus other projects that come out of the team meetings. Paul suggested that we start with what was done with FWS money and look at it. Will it be enough? Where can we take it from there? How do groups like Lake Mead BOA? Wen wouldn't be doing all his projects if it weren't for the initiative. States may use other moneys but do projects that have been leveraged or use 100th meridian products. Don will send an e-mail to ANS coordinators about how to complete this.

To be on the 100th meridian listserv, go on the web site and click on listserv button and follow instructions.

Action Items for Participants

Tina Proctor – Work with CO DOW and State Parks to have a zebra mussel prevention meeting

Don Archer – Incorporate boater surveys in creel surveys on two major waters in the state – Lake Powell and Strawberry Reservoir. Increase to Flaming Gorge and Bear Lake in subsequent years.

Paul Heimowitz – To finish CRB rapid response plan and to hold a drill during the next year

Don MacLean – Work on FWS 100th meridian report and work with evaluation committee, be more engaged

Kevin Aitkin – Improve outreach at Sportsmen’s Shows, working with WA ANS committee on an outreach strategic plan

Pam Meacham – Revisit contacts with Public Utility Districts and Irrigation Districts – update information and perhaps do more monitoring

Steve Bynum – Provide more ANS information on a national level to the US Power Squadron

Brian Lang – work on 1st draft of ANS Management Plan for New Mexico, work with Bob P. to put together an ANS conference in NM

Mike Goehle – Continue to work with NY, PA and OH to identify if they are doing creel surveys and see if they can incorporate boater surveys as well as handing out educational items. Also involve FWS fishery project leaders. Work with NE Panel to incorporate 100th meridian action items

Bill Zook – Solidify partnerships with marinas in MO and Columbia River Basins, continue to improve watercraft inspection training and expand beyond the 5 original states.

Lynn Schlueter – more angler surveys and look through former creel surveys – get info to David Britton. HAACP training for ND and FWS personnel. Kids games to Robyn’s database. Establish ANS regulations for ND based on new law.

Bob Pitman – work with NM partners and establish a network of monitoring with upper Rio Grande, similar network in AZ, increase boater surveys in both states, evaluate the plastic SAH signs, work with NM partners to take the WIT training, group order for ZM display cubes from PreFix, Inc. (\$20 each), trailer stickers –

work with other regions to improve this survey effort, work with NM for an outreach event to get upper level awareness, work with Great Lakes to increase boater surveys, work with national marina organization to get ANS message, distribute information on state ZM regulations

Robert Klumb – Coordinate with other agencies to expand sampling for zebra mussels in Mo River reservoirs, North American Benthological Society – send letter about sampling, send carp kids activity to Robyn

Jeff Herod – Perform one act of kindness each day, continue to work with CA Food and Ag and Fish and Game to expand early detection prevention work team, fulfill request to provide training to their personnel on ID of ZMs, both adult and larvae

Eileen Ryce – complete unbiased TIS evaluation, ZM surveys on Ft. Peck, continue boater surveys, outdoor shows

Jason Goeckler – Work with KS law enforcement to create ID clinic, also work on bait fish issues

Marc Dahlburg – reestablish ZM monitoring, hire ANS coordinator, continue to post SAH signs

Mark Anderson – continue to operate prevention project on Lake Powell, continue sign project, work on rapid response issues with NPS

Robyn Draheim – chair of evaluation committee, increase coordination within state agencies on ANS issues

Mary Pfauth – Get out to irrigation districts and PUDs on Columbia River to get them involved in monitoring, boater surveys in Oregon

Wen Baldwin – Continue education of NPS personnel for spotting high risk vessels, training of marine personnel on decontamination, work with CG Auxiliary and Power Squadron also, maintain substrate monitoring and increase plankton sampling, encourage wash stations, work with NV ANS coordinator

Bryan Moore – work on contracting and installation of two wash stations and paperwork for additional three, work with organizations that do sampling at Lake Mead and see if any of them could process veliger samples, continue to work with Wen and also concessionaires on boat inspections

Jeffrey Smith – coordinate with Denver office and get budget line item on ANS

Todd Pederson – coordinate with Denver office to develop EDRR plan, work with FWS to deploy more detection samplers in Bureau of Reclamation reservoirs and canals

Anita Shaul – clone Wen to sample throughout NV, increase distribution of ANS educational materials in NV, begin first draft of ANS Management Plan, investigate feasibility of ZM monitoring at one or more high risk water bodies (Walker Lake)

David Britton – serve on evaluation committee, on-line form with list of questions, continue to work with PSU and CR team to develop monitoring database on-line, continue to work on distribution of trailer stickers, complete a new analysis of at-risk water bodies for ICAIS meeting in May, update list of invaded water bodies on web site and put in alpha order

Brent Bristow – increase the number of lakes monitoring presently in OK, boater surveys, ANS featured show on local sportsmen’s TV shows