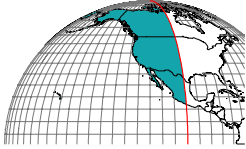


100th Meridian Initiative



100th Meridian Initiative

Colorado River Basin Team Meeting

October 19, 2004
Meeting Minutes

Bob Pitman, Co-Chaired the meeting with Kent Turner, National Park Service, Lake Mead National Recreation Area (NRA). Bob distributed an agenda and explained that this is a working meeting to discuss increasing threats of invasive species spread into the waters of western North America, particularly zebra mussels. A brief history of the 100th Meridian Initiative was given as a background for the meeting. The collaborative effort is now subdivided into several river basin units, of which the Colorado River Basin Team is one of them. Bob pointed out that the 100th Meridian Initiative website is dedicated to coordinating the various teams and provides meeting minutes, agendas, progress, achievements, mileposts, announcements, etc. The 100th Meridian also includes a listserv to connect team members from around the country.

The 100th Meridian Initiative not only includes zebra mussels but also is directed to include “other aquatic nuisance species.” Asian carp is another group of species we are seriously concerned about spreading to uninfected western waters. Bob showed a new Asian carp poster that shows how to identify bighead and silver carp which is available. Contact Bob if interested in distributing and displaying this poster.

Self Introductions. The 100th Meridian Initiative team went around the table and everyone in attendance announced who they were and for whom the work.

Values at Risk

Kent Turner headed the meeting and explained that this meeting was a good opportunity to update everyone on the situation with zebra mussels. Also, it is an opportunity to enhance the zebra-mussel prevention mechanisms here at Lake Mead. Seven boats have been intercepted in the past year, each potentially carrying mussels to Lake Mead. The 100th Meridian Initiative provided information used to detect and intercept these boats.

Roxanne Dey (NPS, Lake Mead NRA, Public Affairs) had notified the press about the meeting and that media reporters may visit. The media did attend and information was provided on Las Vegas stations. Wen Baldwin, Lake Mead Boat Owners Association, was filmed showing how to inspect a boat and was interviewed in the FOX news studio the following day describing the problem and 100th Meridian prevention efforts.

Kent Turner encourage participants to talk about values at risk should there be an infestation here at Lake Mead. What can the National Park Service do? How can the other agencies and groups help?

Larry Riley of Arizona Game and Fish (Chief of Fisheries) said that most of our native aquatic wildlife is restricted in numbers and distribution, many are threatened or endangered. Threatened and endangered (T&E) listing often lead to restrictions in other

activities. The approach in Arizona has been to find a place for everything and try to conserve the values of the people who live or use these areas. Sport fishing is much larger than many people realize. Hunting & Fishing is a \$1.2 billion dollar industry in the state of Arizona. These are very important resources. However, this industry is at risk because of zebra mussels and other aquatic invasive species. The New Zealand mudsnail is a problem upstream of the Colorado. Downstream at Lake Havasu, giant salvinia is a problem. Larry said that in Arizona the focus is on the behaviors that can be used to protect our waters rather than all the specific threats. Focusing on too many specific threats can lead to hunters and fishers getting lost or confused. Focusing on behaviors instead is a better approach.

Jon Sjöberg, Nevada Department of Fish & Wildlife, added that there are not many good studies specific to zebra-mussel impacts to sport fisheries. However, we do know that zebra mussels do impact nutrient flow. These impacts could be particularly significant. Lake Mead represents the largest sport fishing location in the state of Nevada, followed far behind by Lake Mojave. Additionally, most of the out-of-state boaters come from California. Zebra-mussel impacts may lead to restrictions between these water bodies here in Nevada and farther west (California).

Jon said that the New Zealand mudsnail is a species whose primary vector seems to be recreational anglers (sport fishers, fly fishers). Diamond creek in the lower Grand Canyon is the most recent confirmed New Zealand mudsnail location. It is imperative that we teach people how to maintain and clean their equipment. We understand that there are significant values at risk if we don't.

Kent Turner added that Larry Riley and Jon Sjöberg made a good point in that should New Zealand mudsnails reach Lakes Mead and Mojave, then we'll have a need to balance boater inconveniences with the need to clean boats when they leave a water body rather than when they get to a new location. It is very important that we increase or enhance our education program.

Jon Sjöberg said that zebra mussels invading Lake Mead would make many Californians nervous. Jon speculated that this could be a significant seed source.

Larry was asked if the New Zealand mudsnail is mostly a cold water species. Larry answered that they are tiny and many can cover dime. They have an operculum (a cover to protect their soft bodies inside the shell) and that they are born pregnant (they are parthneogenic). New Zealand mudsnails are tiny, tough and born pregnant. It is hard to know how they showed up in Grand Canyon. They may have come in on boots, equipment, a boat, or something else. We don't know. They showed up around 1996.

Kent Turner asked if anyone wanted to say anything about energy impacts?

It was noted that the operation and maintenance program for fish propagation and release could be impacted by snails and mussels. Water source for Las Vegas could also be impacted. Lower Colorado River no longer exists as a Native ecosystem.

Kent added that water intakes (representing hundreds of millions of dollars in facilities) for Las Vegas could be negatively impacted. Sewage discharges could also be impacted. They are moving to a diffusion system below the thermocline and this is another possible impacted system.

Kent Turner asked if there were other stakeholder concerns?

Randy Roundtree: Calville Bay could put in a wash station to help. But, he didn't think the tournaments will go away. They will always be there. Jon Sjöberg agreed. Many bring boaters from back east.

Bill Zook asked if there are permit requirements for tournaments.

Jon S. said that the National Park Service permit is a master permit. A one point shopping where everything is in one permit.

Bill Zook said that Washington Fish & Wildlife has required the tournament director to be responsible for whether the boats are inspected and free of zebra mussels. This is true for the state of Washington.

Randy Roundtree said that it would be a good idea to make the boaters show that they have washed the boat. A receipt or something might be a good idea.

Wen Baldwin pointed out that many of the tournament fishers pre-fish before the tournament, before they would have to show they washed their boat. This could be a problem.

Joseph Zilinskis reminded us all that zebra mussels may already be here at Lake Mead. We just may not know it yet. We might not know for 4 years. And then it will be too late.

Wen Baldwin reported that there are many new signs at the launch ramps. Willow Beach has two. Cottonwood has one. They have plenty of signs. Wen is working with Dave Hughey for mounting posters around the park. Good aluminum frames with Lexan covers (probably). Hopefully wash stations will be in by next spring or next summer. They have to get through the red tape.

Bob Pitman pointed out that we have a national boat ramp sign campaign underway. All of the Stop Aquatic Hitchhikers material is free and available on the internet. Signs can be printed with what ever logo you want (any agency). Then, boaters will see the same kind of sign where ever they go. Boaters should see a consistent sign up and down the Colorado River with a simple message telling boaters what they should do. They will see the same logo or "brand and tagline" in magazines. We want to present a consistent logo with the same the message. Bob volunteered to help the Park Service use the "Stop Aquatic Hitch-hikers" signs if they are interested. Signs are available in multiple formats

at www.protectyourwaters.net. Bob encourages everyone to sign up for the listserv on this website.

David Bergendorf has lots of “Stop Aquatic Hitch-hikers” stickers available if anyone wants them.

Wen Baldwin reminded everyone that print work is available on CD, as well as on the internet (for the “Stop Aquatic Hitch-hikers” campaign).

Mark Anderson has a letter of approval from the Park Service for using the sign.

Kent: We can print up signs and give them to anyone who wants them.

Joseph Zilinkas would like to see a sign that is four by eight feet. He said it is important that they are an eye catcher, but realizes that there are limitations to size.

Larry R.: What is the message that we want to convey with the signs? We need to pursue other avenues as well about getting our message across.

Kent Turner: Currently we have signs, posters at developed areas, and wash stations are on the horizon. We need to make the wash stations as easy as possible. We have applied and have funded a permanent and portable wash station this year (hopefully before summer). These are self contained units with filtration and containment systems. Not yet in place, but we have funding for these and may get more.

Anyone personally delivering a boat into a recreational area now gets an advisement that their vessel will be inspected and must be decontaminated before launch. This is for commercial haulers, many coming from Kentucky and that part of the country. Many launch areas inside the Lake Mead National Recreation Area (NRA) do not have a station. Some haulers may be able to get the boats in without being stopped. The concessionaires have been very cooperative in informing authorities about large vessels renting slips, etc. So rangers have a more direct contact with the haulers.

Wen Baldwin: Boat dealerships are also very helpful. They have caught boats and this is making a big difference.

Joseph Zilinkas: The girls who answer the phones at the mooring places are good at asking where the boats are coming from. The concessionaires have been doing a good job and are instrumental in helping thwart the spread.

Wen Baldwin: I have been trying to call all the concessionaires and have not seen much resistance, but one or two are not as cooperative as we might like.

Jon S. Possession of live zebra mussels is a violation of Nevada statutes (without appropriate permits) and this may be true in AZ too. It is a Lacey Act violation if it is interstate commerce. We have a big stick if we need it (there is a legal mechanism if we

need one). Of course, we would prefer to use education as first line for defense, but we do have this as a back-up mechanism.

Roxanne Dey: Weigh stations would be a good place for checking boats.

Bob Pitman: DOTs (State Departments of Transportation) have not been very receptive to our recommendations. Some states understand, but they have bigger issues that they prefer to spend their time dealing with.

Jon S. also pointed out that a boater doesn't have to necessarily register their boat before using it here. The boat only has to be registered in the state of principal use, and could be used here for months before anyone notices. Also, not every boat is physically inspected when the registration is transferred.

Kent Turner mentioned that Wen has put zebra-mussel monitoring stations out. These are kept track of by Oregon State University.

Wen Baldwin gave a run-down of the boats intercepted at Lake Mead in the last year: Seven boats have been intercepted since May 28th. Marc Burt found one from KY. One came in from Chicago with a bent prop shaft. The outside of the boat was immaculate, but when they opened up to get to the shaft, it was loaded. A boat came in from lake Ponchitrian, LA, no signs of zebra mussels on the outside. This one did not have zebra mussels, but was a potentially contaminated boat. Bob Wright called Wen on that one. Commercial haulers might not tell the truth if they think they can get their boat unloaded faster. A boat was found at Lake Mead Marina that came from Ohio with mussels attached. The boater asked for help in launching his large boat, otherwise it would have been in the water. September 13th, a boat with trim tabs, outdrive, and other areas were covered. The owner did not want to do any decontamination so it was placed in quarantine. The boat was from Lake St. Clair, Michigan. Another boat was intercepted from Lake of the Ozarks, MO. On October 11th, 2004, a boat from Chicago was found with zebra mussels on the trim tabs. Detections and interceptions are increasing. People are becoming more aware and are helping. But, we are not there yet. We need to do more. We need to stop the boats when they come into the park. It is important to note that none of the mussels were alive by the time they were found.

Bob Pitman: These stories and issues are good to spread around. The 100th Meridian Website is a good tool for spreading the message and getting people's attention.

David Britton: I have posted pictures on the website with short accounts of these incidents. The pictures and info were given to me by Wen Baldwin.

Wen Baldwin: People can't help us if they are unaware of the problem.

Jon S: We need a more consistent notification process. Timeliness is important.

Bob Pitman: the next draft of the Zap the Zebra mussel brochure will have a better number that will allow a fast response.

15 min break

What is Being Done?

Mark Anderson: Provided an overview on the prevention program at Lake Powell. 1999 was the first year this issue was brought to the attention of the park when he brought 100th Meridian information to inform the park. They wanted to know at that time how many people are coming in from zebra-mussel infested states. They found about 70 from zebra-mussel infested states. In 2001, they kicked off their prevention program. Any visitor that passes an entrance station with a boat of any kind gets asked if the vessel has been launched east of the Rockies within 30 days. If yes, then they ask which states was the vessel used in. If it was used in an infested state or province, then the boater gets a prevention packet. The packet includes, a Zap the Zebra brochure, a map to the nearest washing facility and a coupon for a free boat washing. In 2001 and 2002, participation was voluntary. In 2003, it was added to the superintendent's compendium that potentially contaminated boats must be washed before entering Lake Powell. They have to be washed by an approved concessionaire not just wash the boat.

In the first year, only 13 boats were identified and 9 did the washing. In 2002, 31 boats were identified. Of these 22 went to get the washing. There was about a 70% compliance the first two years. Not good enough. In 2003, 30 or so boats were identified but only about 47% actually got the washing even though it was required. In 2004, they have tried to increase compliance. Ranger escorts etc., but they are overworked already. Compliance numbers from this year are not available yet. They have artificial substrate samplers in Lake Powell to check for larvae. Sampling for veligers is much more difficult so substrate samplers are what they are focusing their efforts on. So far they have not found any zebra mussels. They have new signs going out. A newly funded project will add interpretive displays and metal signs. They have a 1610 am radio station with a zebra-mussel message on that. Radio interviews are out too. There is no one at the Park Service at Lake Powell that isn't aware that zebra mussels are a real threat. A complete net is not achievable, however. Boaters can get through.

Bill Dickinson: Stopping boaters at entrance stations can be a problem. They have people getting violent if they have to wait to get through an entrance station. If boaters are stopped to ask questions, this can delay people getting through. Some people are willing to wait for 20 minutes or half an hour—if the threat is real. But others are not so patient. There are not enough rangers to catch everyone.

Joseph Z.: It will ultimately fall on the shoulders of the concessionaires, but they are not at all of the boat launches.

What needs to be done?

Kent: the safety net is not at 100% at Lake Mead or Lake Powell and probably never will be. We know that we won't achieve 100% coverage, but we do want to get the maximum

coverage that we can as efficiently as possible. We have additional sources: tournaments, Incidental Business Permits IBPs (purchased boats delivered to the lake), equipment etc. Functions that we need to focus on and discuss are education, intercepting and contacting boats, decontamination, inspection, and monitoring after inspection.

A List of Points of Contact:

- Entrance Stations
 - We need to do more here.
 - Perhaps volunteers can walk the boat lines to ask questions
- Concessions at ramps
 - How can we get these to contact boats?
 - It is probably better to catch the boaters at the ramp than at the entrance stations
 - But, not all launch areas have concessions
 - Additional resources for helping folks at ramps might be warranted to add personal to ramps (volunteers or surveyors).
- Bass Fisherman (suggested by Mark Burt)
 - They come in when the park is closed
 - They come in before the tournaments
 - They are better educated than many boaters (Mark Anderson)
 - Require Permits
 - Provide Education
 - We could place the burden on Tournament Directors as has been done in Washington (Bill Zook)

Larry Riley: We need to focus our attention on the high-probability boats.

Randy Roundtree: Most fisherman professionals are from the west coast and are not a high-risk.

Bill Zook: It seems like the two high risk areas might be commercial haulers and the BASS groups that make the big national tournaments. The majority of these, however, are local and team tournaments. In Washington, the burden is on the tournament directors. They ask “where is your boat coming from?” They have to list the names and the state of origin. They are required to show and file a decontamination statement. Then you only have to spot check the tournaments.

Randy: The problem, again, is that these fisherman practice for a couple of days before the tournament. They show up and launch prior to the tournament. Pre-fishing is a problem. The tournament organizer has no control over this.

Joseph Z: At the ramps, there are volunteer organizations that could help: Coast Guard Aux., Lake Mead Boat Owner’s Association, etc.

General Agreement: Most tournament fisherman keep their boats clean, and these boats are not kept in the water very long. They are probably not high risk boats.

Kent: What about purchased boats: How can we contact these folks? Through dealerships, marine surveyors/insurers, through registration, IBPs, moorage and slip offices, marinas.

Dale Antonich: Asked about the biology of the mussels and how they can spread from a single boat.

Larry Riley explained that we have several factors, heat, low humidity, long distance to zebra mussels areas, that are working in our favor. But, it is possible that viable mussels could get here. However, we have not intercepted any viable mussels yet. It is possible that some mussels may live in protected/wet areas that are not readily accessible from the outside.

Joseph Z.: You have to physically remove the outdrive from the boat to thoroughly inspect it.

Kent: What kind of training programs need to be provided (that we aren't providing now)? We need to train tournament directors, marina operators/concessionaires, marine surveyors, warden staff, rangers/RM staff.

Bill Zook: We need to have a consistent inspection procedure like the Washington video.

Dave Merrill: Concerned that concessionaires might be questioned regarding their authority to inspect boats at launch ramps.

Kent: Some kind of certification for training boat inspectors is warranted. This certification would include information about who to call if a boat is intercepted. There needs to be more than two people to call. We need to educate these people on what to look for and what to do.

Marc Burt: Pointed out that even rangers are questioned about their authority to stop commercial haulers. The problem is not just with concessionaires at the ramp.

Joseph Z.: We need some kind of credentials in order to stop boats from launching or to inspect it.

Kent: Notification Process: What should be included in our notification process? Assume we have a boat in our custody. Who needs to be notified? NPS public information office, Nevada Dept of Wildlife/ Arizona Game and Fish Dept, 100th Meridian Initiative website/listservers, Dispatch, Rangers.

Larry Riley: Immediate needs for notification are more important.

Marc Burt: We need an emergency notification. Who should be contacted immediately?

Larry Riley: Sheriff's office in AZ may need to be contacted as well.

Joseph Z.: If we are to stop a boat from launching, we need someone with a badge to be there.

Kent: What about the multimedia aspect of an education program. What media outlet formats should we approach on this?

- Mussel exhibits
- Actual shells are needed for educating boaters and inspectors
- 1610 Park Radio
- Inserts on Utility Bills
- Posters at Gas Stations (with a phone number)
- Inserts with boater registration renewals
- Inserts with park passes (window decal)
- Park Service website
- Concessionaire's Newsletter
- PSA for radio stations
- Handouts at Water Safety Programs
- Wanted Poster (with possible reward)

Kent: Looking for volunteers for help.

- Kay Rohde can help with exhibits and TIS
- DMV for boat trailers
- Nevada Dept of Wildlife for licenses
- David Bergendorf can help with technical questions and clarification of state laws
- Jon S. can help with enforcement issues

Immediate Action Items to Enhance the Prevention Program

- Begin a training program for inspections
 - Develop or decide on protocols for inspection
 - Develop or decide on protocols for decontamination
 - Produce a notification flowchart
- Review and tighten up fishing tournament permit language
- Get information out to the network within the boating industry
- Identify the legal framework necessary for rangers to stop launches
 - Jon
- Develop and improve the education and messaging program
 - Roxanne Dey/Ken Turner/Kay Rohde
- Come up with an approved, consistent fee for decontamination
 - Kyra Thibodeau

Wen Baldwin: Thanked everyone personally, especially all the concessionaires, for the cooperation that they have given him.

Mark Anderson: Added that the boat washes at Lake Powell are free to the boaters and the Park Service because of the concessionaire's concern.

Bob Pitman: Provided recognition awards to Wen Baldwin and Mark Burt for their efforts with the 100th Meridian Initiative.

Lunch Break

Bob Pitman: Notre Dame study is evaluating the economic impact of zebra mussels invading into the western US. The short summary of current findings is provided by John Bossenbroeck and will be posted on the 100thMI website.

Value of 100th Meridian Initiative surveys: Dave Britton has maintained the database and is able to analyze, using GIS, boater survey information. Dave also created an electronic adaptation of our paper forms. Simple and electronic forms allow us to save a whole lot of time and opportunity for error in transcription. The electronic PDA form program is available at the website and can be used on your own PDA's. This is another way to help focus and refine our efforts. Bob encourages the use of the same standard form all over the country.

David Bergendorf: Groups in California will be conducting fall 2004 and spring 2005 boater surveys utilizing randomized survey design. He also encouraged the use of the standard forms.

Bob Pitman: Data from the Lake Mead and Lake Powell area is already available on the website.

Dave Britton: A summary document is also available in the documents section of the website.

Kent Turner: Doesn't know if any additional areas besides Lake Mead and Lake Mojave ought to be on their radar screen.

Larry Riley: Lake Powell, Lake Havasu, Lake Pleasant in Central Arizona ought to be considered as well. AZ is providing outreach materials to these areas in Arizona. AZ has not used radio extensively. They found morning news programs tend to be accessible, particularly on weekends. Local media can be good for getting the message out repeatedly.

Bob Pitman: Would like to purchase standard signs for deployment along the Colorado river.

Larry: We already have these signs and are preparing to deploy them but we need to coordinate with the authorities at each area (BLM, AZ state parks, Forest service, etc.). A supply of signs exist but they'd like more signs if they can get them.

Jon: Lake Havasu and the Colorado River system from Needles Bridge and Davis Dam are areas that are good target area for large commercial boats. We ought to consider these as popular destinations.

Jim Gacey: What do we do on tribal waters?

Bob Pitman: We need to make a special connection to find out.

Larry: CO river Indian tribes are generally very amenable to working with us and are very cooperative.

Bob Pitman: Will provide the tribes with signage with their logo on it, if they would put them up. How many ramps are on tribal lands?

Jon: More than a couple. Not quite sure. "Somewhere between a couple and a bunch."

Jon and Larry will contact the tribes and see how many signs they need.

Bob Pitman: What about the Laughlin area? How do we address that?

Jon S.: Recreational Boaters are not so much a problem; it is the commercial haulers that are the ones that concern me.

Larry: Boats coming into the Laughlin area are mostly from the AZ, NV, CA area, but they may be coming from elsewhere. We need to make sure that access points are signed. Marina folks in there are very open and willing to help.

Bob Pitman: Is there anything you need from me?

Larry: We need to know how to assemble prevention packets and how to get those out to folks.

Bob Pitman: Action item would be to develop prevention packets and get them to the chamber of commerce.

Bob Pitman: What about short-range radio signals?

Kent: We are going to add a message to our radio station here at Lake Mead

Bob Piman: What about TIS's that broadcast only about 200 yards placed near launches? Boaters may tune in as they wait to launch.

Kent: We can look into that, but I imagine these are not cheap.

Bill Zook: These are about \$2,000.

Kent: Even if they had just weather forecasts, people would tune in to listen while they are waiting.

Bob Pitman: The systems are portable so they can be moved for fishing tournaments, etc. Bob will get the information from the vendor about the specifics regarding portable TIS systems.

Missouri River Team Update

Presented by Bill Zook as a PowerPoint:

The Columbia River project builds on what was done for the Missouri river Team's efforts. The MO River started as part of preparations for the Lewis & Clark Bicentennial Celebration. Seven MO basin states participated. DOT, Dept of Tourism, FWS, Corp of Eng, and the PSMFC. Six step strategy to prevent invasion. Step 1 was trip planning. Messages were linked to the top 10 websites for L&C. TIS transmitters were put in (a total of 10 were deployed) to get the message out. The third phase was to work with the marinas to have information for travelers (River Watch Program), The last chance to reach the boaters was at the ramp. They got everyone to agree on one sign for the entire basin. The only differences on the signs were logos and phone numbers. Then next phases were containment strategies by expanding monitoring of substrate. Lewis & Clark PSAs were produced with popular character actors to spread the message. TIS systems were placed on major east/west corridors in northern US. The PSAs were put on the TIS systems. The signs say "Boaters and Anglers Tune to..." They originally said "Lewis & Clark have a message for you" but the highway department didn't like that.

River Watch Program

Public outreach partnership with marinas/portage and concession operators. They were given a free plexiglass display case and filled it with zap the zebra brochures. They provided large canvas banners to advertise boat washing. They offered the partners a postage subsidy if they included a zap the zebra brochure in their newsletters. If they stay with the program for three years they will get a plaque signed by the President, cash award, and a thank you in the local press.

A good attention-grabbing thing is the actual zebra mussel shells.

Columbia River Basin Team Update

The Columbia River Basin Team is a big group, larger than the MO river basin team. Their key strategies are education and outreach. They will produce a newsletter they will send out to whomever they can reach. This will describe what activities are on the L&C trail and how to participate; press releases; boat/fishing shows; hunting/outdoor shows.

public service announcements (PSAs). ANS van (USFWS). They have funding for two TIS systems but no one gave a proposal for selecting the sites. They have started a partnership with marinas and resorts (192 marinas/resorts/other) in the huge basin. Anyone that may be a point of contact for an out-of-state boater is on the list. They are provided Zap-the-Zebra brochures, zebra-mussel watch cards, visual inspection and notification information. They produced a poster called "Clean your Boat before your Float" that has directions to the nearest boat washing facility (in an area writable with magic marker). Signs are not consistent in this basin. New signs were developed for Oregon. New signs were produced for Idaho. Washington used existing signs. PSU is compiling a comprehensive sign database. Monitoring efforts continue and is managed at PSU. They plan to increase the number of monitoring spots. Boater surveys were analyzed to determine where additional boater surveys should be conducted. David Britton did this using existing boater survey data and this information was provided to Paul Heimowitz. David's recommendations will be used to determine where we should conduct future surveys.

Bob Pitman? Who does the newsletter?

Bill Zook: Amy Gaskil for the Portland Office (USFWS). It is done twice a year.

Bob Pitman: Can this be made available on the 100th Meridian Initiative website?

Bill Zook: Yes.

Boat Cleaning by Prefix Corp.

Kim Zeile lives in a zebra mussel infested area in Minnesota. He started to think about a solution to the spreading problem. Kim is a mechanical engineer. He knows that 100% solution is impossible, but he does think he has a good plan. He has a CLEAN rinse system. A control unit takes water from the contaminated lake, heats it, pressurizes it and sprays it on the underside of the boat as the boat is pulled over it. It runs on propane so fuel spills are not a problem. Boaters get swipe cards with their registration. The swipe cards activate the system and allows for tracking the boat and if it was cleaned. The system is weatherproof.

David Bergendorf: Can you make the water hot enough to kill ANS without damaging the boats?

Kim: If the boat is in good condition, the pressure should not damage the vehicles. The pressure can be set to 5000 psi and 90 degrees over ambient lake temperature, but this is adjustable. This would be installed at contaminated sites in order to get the bulk of the contaminates off of the boat as it leaves the site. Uses the same technology as the instant hot-water heaters available for houses. It is a capillary heating system (a flash heater). The water runs back into the lake, but it should cool off before it runs back into the lake.

One issue is that cleaning the bottom of the trailer might rinse off road grime and contaminate the lake. A boat mechanic suggested that this would violate their ISO certification.

Another clean wash system is portable and could be delivered on a 40-yard dumpster truck. This one also uses heat and pressure to wash the boats. Once the system is deployed it uses clean water tanks. The run-off is contained and can be pumped out by a septic company. It holds 1500 gallons of fresh and contaminated water (3000 gallons in total). This should be enough to wash 75 standard-length boats. These would work for "trailerable" boats but not on the giant commercially hauled boats. The system is still under development. Prefix is trying to determine the market for the device. They estimate the cost for these units somewhere near \$23,000 a unit if many are produced.

Another potential problem is that the high pressure could dislodge bottom paint which is a hazardous material that probably could not be stored in 1500 gallon tanks. Also, a specially licensed septic company may need to be used to take the hazardous grey water away.

A synopsis of this presentation was provided.

Bob Pitman: What do you (Prefix) need from us (CORB team)?

Kim: If money is available, we would like to produce 10 units for you to test.

Bob: I'm not sure we have that kind of money. Ten units is a lot. However, there may be partnership money that may be available for a smaller number. We would be interested partners but we do not have the money to produce as many as ten units. We might be able to find money to test one or two units. We probably would not be able to pull together more than 50 thousand dollars. However, we cannot be sure that we can commit that much at this point.

Kent pointed out to Kim that other systems are similar, we would want to know how this one is an improvement before committing so much money.

Kim: The price is doable. The tracking technology is a new idea. The self-contained automatic system (rather than a hand-held manual unit) is a new idea.

Kim: Asked attendees to endorse the concept with their signature. He wants to build some units and get them out to the public to see how they work and see how people will accept them or not.

Bill Zook: Suggested that each of the 100th Meridian Initiative action teams sign as a group saying that they have found his system interesting and that we are interested in seeing it developed further.

Bob Pitman will coordinate with the other 100th Meridian Initiative teams for an endorsement statement or something similar.

Work Planning

Prioritizing Tasks

Kent: Training and Protocols, Development of legal support, Language for Fishing tournaments, Focusing education and outreach. Consideration of development of prevention packets. David Britton and David Bergendorf should coordinate with Kent Turner and Larry Riley on prevention packets. Need this done by March (next boater season).

Next meeting date sometime next spring. The decision will be made later.

Close of meeting at 4:08 pm.

Action Items

- David Britton will post the sign-up sheet on the 100th Meridian Initiative website
- Bob will help the Park Service use the “Stop Aquatic Hitch-hikers” signs if they are interested.
- A more consistent notification process for reporting zebra mussel sightings needs to be put in place. David Britton will work with Wen Baldwin and the Lake Mead Park folks to design a consistent reporting procedure so we can spread information more quickly and efficiently.
- Add a reporting number on the next draft of the Zap the Zebra brochure for reporting new zebra mussel sightings. A better number will allow a faster response. David Britton and Bob Pitman will see that this is done.
- John Sjöberg and David Bergendorf will Identify the legal framework necessary for rangers to stop launches
- Begin a training program for inspections
 - Develop or decide on protocols for inspection
 - Develop or decide on protocols for decontamination
 - Produce a notification flowchart
- Review and tighten up fishing tournament permit language
- Get information out to the network within the boating industry
- Develop and improve the education and messaging program
 - Roxanne Dey/Ken Turner/Kay Rohde
- Come up with an approved, consistent fee for decontamination
 - Kyra Thibodeau
- Find out how we can actual zebra-mussel shells embedded in transparent plastic (acrylic?) for educating boaters and inspectors (Bob Pitman)
- The short summary of current findings of the economic impact study provided by John Bossenbroek will be posted on the 100thMI website (David Britton)
- Pictures of the recognition awards presented to Wen Baldwin and Mark Burt for their efforts with the 100th Meridian Initiative will be posted on the website (David Britton)
- Jon S. and Larry will contact local tribes and see how many signs they need.
- David Britton and David Bergendorf should coordinate with Kent Turner and Larry Riley on prevention packets. Need this done by March (next boater season).
- Bob Pitman will get information from the vendor about the specifics regarding portable TIS systems and send this information to Kent.
- David Britton will contact Amy Gaskil at the Portland Office (USFWS) to see about putting the newsletter for the Columbia River Basin Team on the 100th Meridian Initiative website
- Bob Pitman will coordinate with the other 100th Meridian Initiative River Basin teams for statement encouraging the continued development og the Prefix washing system.

Attendance Sheet for Colorado River Basin Team Meeting at the Lake Mead National Recreation Area October 2004

Name	Location	Org	Phone	Email
Larry Riley	Phoenix	AZ Game & Fish	602-789-3257	lriley@gf.state.az.us
Ruth Hendrickson	Lake Mead Marina	Lake Mead Marina	702-293-3484	lmrb@aol.com
Robert Birkelland	Crosslake MN	Prefix Corp.	800-620-3291	rob@larsouteau.com
Kim Zeile	Detroit MI	Prefix Corp	248-842-6201	kim.zeile@prefix.com
Dave Merrill	Echo Bay Resort	Seven Crown Resorts	702-394-4066	echobay_safety@mudsl.com
Bob Pitman	Albuquerque	US Fish & Wildlife Service	505-248-6471	bob_pitman@fws.gov
Wen Baldwin	Henderson NV	L. Mead Boat Owners' Assoc.	702-313-4406	wenbald@earthlink.net
Jim Gacey	Boulder City, NV	USBR	702-293-8620	jgacey@lc.usbr.gov
Bill Zook	Washington	PSMFC	360-427-7676	bjzook2@msn.com
David Bergendorf	Stockton, CA	US Fish & Wildlife Service	209-946-6400 x342	david_bergendorf@fws.gov
Jim Holland	Boulder City, NV	Lake Mead NRA	702-293-8986	jim_holland@nps.gov
Joseph Zilinkas	Echo Bay Resort	Seven Crown Resorts	702-394-4000	
Marc Burt	Lake Mead NRA	National Park Service	928-767-3401	marc_burt@nps.gov
David Britton	Arlington, TX	US Fish & Wildlife Service	817-272-3714	david_britton@fws.gov
Randy Roundtree	Callville Bay	Forever Resorts	702-565-8958	rrcallville@anv.net
Bryan Moore	Lake Mead NRA	National Park Service	702-293-8901	bryan_moor@nps.gov
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Bill Dickinson	Lake Mead NRA	National Park Service	702-293-8920	william_k_dickinson@nps.gov
Roxanne Dey	Lake Mead NRA	National Park Service	702-293-8947	roxanne_dey@nps.gov
Kyra Thibodeau	Lake Mead NRA	National Park Service	702-293-8923	kyra_thibodeau@nps.gov
Stephen Hays	Cottonwood Cove	Forever Resorts	702-297-1464	cottonwoodsafety@aol.com
Jim Smith	Cottonwood Cove	Forever Resorts	702-297-1464	cottonwood_op@aol.com
Mark Anderson	Glen Canyon NRA	National Park Service	928-608-6266	mark_anderson@nps.gov
Kent Turner	Lake Mead NRA	National Park Service	702-293-8941	kent_turner@nps.gov
Bruce Nelson	Las Vegas	Marine Center, Las Vegas	702 434-4405	bnelson@baotinglakemead.com
Gary Gripentog	Las Vegas	Las Vegas Boat Harbor	702-293-1191	ggripentog@aol.com
Bill Zook	Washington	PSMFC	360-427-7676	bjzook@msn.com
Kay Rohde	Lake Mead NRA	National Park Service	702-293-8918	kay_rhode@nps.gov