

MINUTES

100TH MERIDIAN INITIATIVE COLUMBIA RIVER BASIN TEAM VANCOUVER, WASHINGTON FEBRUARY 28, 2007

Attachments (below): Agenda, List of Attendees, “To Do” List, Quagga Mussel Press Release

Bill Zook said that the Watercraft Inspection Training (WIT) video has been completed. There is also a shortened version of the video specific to marinas with less on law enforcement. Copies were provided to attendees. For additional copies, contact Bill at bjzook2@msn.com. A recommendation was made to make the video available for public television, public access or other venues.

Bill said a schedule would be released soon for more WIT training in 2007. This year's training will include a responder section in which attendees will be taught to decontaminate a watercraft and the process for reporting a quagga/zebra mussel finding. Jeff Herod said he would contact agencies in California and see who is interested in watercraft inspection training.

Bill showed the Team a watercraft decontamination kit that includes chlorine. There was a discussion of the chlorine concentration necessary to kill zebra mussels, as well as the safety precautions in using the watercraft decontamination kits. There was also a discussion regarding the concentration of the kit's chlorine crystals (once water is added). Robyn and Sam will look into this matter further to determine the best concentration level. Stephen and Susan will look into options for upgrading the masks and also adding safety goggles to the kits.

Bill requested that articles be submitted for the 100th Meridian Missouri and Columbia River Basin (CRB) newsletters to him by the end of March.

Bill discussed the boat commercial hauler outreach work that PSMFC is undertaking. He said that he also wants to use Oregon's Clean Marina Program as a model for other western states. Bill may not get to visit all the marinas in the Missouri and Columbia Basins this year. Therefore he will be looking for other ANS staff to perform outreach at marinas. Bill will send Pam a list of marinas that he has worked with in Washington State so WDFW can visit them.

Thom Whittier, Oregon State University, gave a presentation on water quality as a potential limiting factor for dreissenid mussels. He indicated that past data and models indicate the Columbia River Basin is at a high risk for invasion did not take into account calcium concentrations. For example, in Thom's opinion, the Willamette River's calcium levels are too low to support zebra mussels. There was also discussion on temperature, PH, turbulence and plankton densities and how these parameters would affect mussels in the CRB. The group agreed this is a very important topic and discussion will continue.

Jeff Herod discussed the Lake Mead quagga situation. The quagga mussels are 3 to 16 mm long

and their density is about 4 to 5 individuals about 15 ft apart. Some druses have also been found. Jeff said there was more concern about contamination from the Lake Mead trout hatchery to Wild Horse Reservoir from adult mussels being scooped up when fish were transferred from the raceways rather than from veligers transferred in the tanker water. A science panel has been convened to look at standardized assessment and monitoring protocols for the Lake Mead quagga situation. He said the National Park Service is contracting with the Bureau of Reclamation on Polymerase Chain Reaction (PCR) sampling.

There was discussion on the benefits the PCR sampling method. It is inexpensive, species specific and quick. Scott Smith has been working on PCR on a broader scale in the west in coordination with Skidaway Institute and will continue doing so.

Jeff went over the state of California's incident command response system, as a well as the Governor's quagga emergency declaration in California. He also said that the Los Angeles metropolitan water district will be buying a ROV for sampling.

David Britton gave an update on the 100th Meridian website. There was a discussion on incorporating PCR data into the 100th Meridian database. Scott Smith asked if more specific information fields can be added to sampling data, such as how many tows make up a sample. David said yes that could be done.

David was also asked to look into the 100th Meridian Initiative boater survey data and movement of watercraft, especially in and out of Lake Mead/Lower Colorado Basin, to help with risk assessment and monitoring priorities.

Steve Wells reported that the PSU substrates did not detect the Lake Mead quagga mussel infestation, because they were probably too shallow in the water column. The substrates are being modified to sample at greater depths.

There was a discussion on veliger monitoring:

- Steve Wells said he will be processing veliger samples full time this year. See attached summary. He offered to process samples for anyone that needs them done.
- Pam Meacham said the WDFW processed 113 veliger samples in 2006, including Lake Roosevelt.
- Tim Darland hopes to have the Corps continue the sampling begun in 2005 with PSU.
- Eileen Ryce will be processing as many veliger samples as she can in 2007 in Montana.
- Fred Partridge will be collecting veliger samples this summer in Idaho.

Mark Sytsma plans to contact Alan Herlihy on the EPA's national Environmental Monitoring and Assessment Program lake survey. Possibly they can assist with dreissenid monitoring work and sampling.

Michelle Hollis said that the Port of Portland will have room on their boat during their upcoming water quality field work. She said if anyone wants to go along to do ANS sampling to let her know.

Scott Smith is discussing the possibility of using volunteer scuba diving clubs, such as the Washington Scuba Alliance, for zebra/quagga mussel sampling although liability is a concern. He suggested that it might be possible to sample and do protocol comparisons in areas with known infestations. Scott will report back to the group as it develops.

Scott Lund mentioned that the Bureau of Reclamation has dive teams and noted that it is expensive to use them.

There was discussion on Wild Horse Reservoir and stocking records, including who owns the reservoir and the role of the Nevada Department of Wildlife. Alan Pleus recommended getting divers in Wild Horse as quickly as possible.

Scott Lund recommended that a risk analysis be conducted on the quagga threat to help in prioritizing where resources should be focused. Options like wash stations need to be considered. There was a question as to if the quagga is listed under the Lacey act. Paul Heimowitz will look into this.

It was agreed that a monitoring committee be established and a sign up list was sent around the room. Stephen Phillips will set up a conference call to discuss sampling options. It was mentioned that the monitoring coordination committee could also be of use for species other than quaggas, such as the Amur goby.

The draft press release was handed out. Paul asked for comments in three business days (March 5). Randy Henry suggested an internal follow-up to the press release in each of the agencies.

Discussion then focused on the Rapid Response Plan:

- Discussion focused the need to schedule a drill for the rapid response plan. Examples of incident response can found in insect infestations (fruit fly, Gypsy moth).
- Mark, Paul and Robyn Draheim agreed to develop a paragraph on monitoring procedures/protocols for the Rapid Response plan.
- Canada needs to be included in rapid response activities -- Gary Caine with BC Ministry of Agriculture and Lands, as well as someone from Department of Fisheries and Oceans, to cover both regional and federal activities. - Bruce Sutherland was asked to put a definition of toxicity in his water quality and mitigation tables.
- The rapid response plan's letter of agreement needs to be sent to agencies and governor's offices for review and endorsement. - Kevin Anderson said he will take the letter of agreement to the Washington governor's office for comments.
- It is important for states to discuss their own interagency rapid response capability.
- A March 15 deadline was set for comments on the rapid response plan.

Stephen asked Bruce if eradication permits (e.g. NPDES) could be obtained within a week if zebra mussels were found tomorrow and Bruce said no.

Nevada Department of Wildlife needs to be invited to the next CRB meeting.

The next meeting will be June 14 and 15 at the Portland Airport Sheraton Hotel [originally scheduled for the Heathman Lodge Vancouver but changed because of meeting size]. It will include a ½ day (+?) incident response training session as well as a meeting of the monitoring committee. There will also be a general Columbia River Basin Team Meeting.

TO DO LIST FROM 2/28/2007 MEETING

Bill and others as opportunities arise will look into airing the “It Only Takes One” video on public television, cable access, outdoor shows etc.

Jeff Herod will follow up with agencies in California as to their interest in the Zook/Baldwin Watercraft Inspection Training

David Britton will look into 100th meridian database entries and see if a field can be created that would allow for more specific information on sampling technique and frequency, such as how many tows were conducted to obtain a veliger sample.

David Britton will continue 100th meridian database work on maps showing boater movement based as defined by past surveys, particularly from Colorado Basin to Columbia Basin

Mark Sytsma will contact Alan Herlihy about EMAP and potential ANS connection

Michelle Hollis offered space for field samplers on current Port of Portland expeditions

Stephen will set up monitoring committee conference call

Press release comments are due to Paul by Monday March 5, Paul will send out press release the week of 3/5 to USFWS press list in the Columbia Basin

Press release needs to go to Canada, specifically Gary Caine

Stephen will invite NVDOW to next CRB team meeting (Wyoming too, though they are already on the list serve)

Mark/Paul/Robyn will develop a pre-rapid response monitoring strategy paragraph for the RR plan

Scott Smith will continue investigating PCR and diver monitoring

Comments on the Letter of Agreement are due 3/15. It will be send to governor offices as well as agency directors.

Kevin Anderson will run the draft Letter of Agreement by the governors’ office in Washington for comment

Monitoring team will include other species such as gobies in their discussions

Bruce Sutherland needs to define toxicity

Robyn/Bill will look into the sodium hypochlorite concentration question

Date: March 8, 2007

RO# 07-016

Contact: Paul Heimowitz, USFWS (503-872-2763; paul_heimowitz@fws.gov)
Stephen Phillips, Pacific States Marine Fisheries Commission
(503-595-3100; stephen_phillips@psmfc.org)
Amy Gaskill, USFWS (503-231-6874; amy_gaskill@fws.gov)

Zebra Mussel Relative Found in Lake Mead
Pacific Northwest on High Alert

The discovery of invasive quagga mussels in Lake Mead on January 6, 2007 elevates the threat these species pose to the Pacific Northwest's natural resources and economy. A team of aquatic invasive species experts met last week in Vancouver, Washington to discuss this new concern and opportunities to enhance ongoing prevention, detection, and response planning efforts. Like its better known cousin the zebra mussel, the freshwater quagga mussel can grow on many surfaces and form dense colonies that clog water pipes, foul irrigation screens and fish ladders, restrict water recreation, harm native aquatic life, and result in costly maintenance. They consume large amounts of microscopic plants and animals that salmon and trout rely on for food, adding further stress to native species already in peril and affecting recreational and commercial fisheries. In the event of a quagga or zebra mussel invasion, estimated maintenance and control costs to the Federal Columbia River Power System could run into the hundreds of millions of dollars, which would pass down to Pacific Northwest consumers.

Quagga and zebra mussels are native to Eastern Europe/Western Asia, and they invaded the Great Lakes region in the 1980's. Both species have since spread by attaching to boat hulls, engines and trailers, closing their shells, and then hitching a ride to a new water body. Boaters also can transport the mussels' microscopic larvae in live wells, engine cooling systems, and other sources of standing water. Cross-country transport on a recreational boat is the likely route that recently brought quagga mussels to Lake Mead. Although boats with live zebra mussels have been intercepted in the West coming from the eastern United States, boats traveling from the Colorado River now represent a much closer threat to Pacific Northwest waters. Past surveys demonstrate that some boaters regularly tow their boats between the two regions. Regional natural resource managers are also concerned about the potential movement of quagga mussels by fish stocking operations. After the initial discovery of quagga mussels in Lake Mead, biologists found the invasive shellfish growing in the Nevada Department of Wildlife's Lake Mead Fish Hatchery. Although that hatchery normally releases fish within the Lake Mead region, it did transport fish into Northeast Nevada's Wild Horse Reservoir in April and May 2006. Wild Horse Reservoir drains into the Owhyee River, which flows into the Snake River.

Although it's unclear if that fish transfer was also contaminated by quagga mussels, plans are underway to survey Wild Horse Reservoir.

"Invasion by quagga mussels would be a terrible blow to the Pacific Northwest," said Ren Lohofener, director of the Service's Pacific Region. "We are working hard to continue prevention programs, monitor for their presence, and move forward with preparations to respond if they do arrive." Under the national 100th Meridian Initiative, a partnership of organizations has been cooperating for years to prevent zebra and quagga mussels from entering the West across the line that bisects the United States (the 100th Meridian). The program's Columbia River Basin team includes state natural resource agencies, federal government, tribes, ports, universities, nonprofit groups, and other organizations. This team collaborates to teach boaters how to recognize and prevent "hitchhiking"

mussels; trains enforcement officers to detect infested watercraft; and surveys high risk water bodies for mussel adults and larvae. Most recently, this team has developed a zebra/quagga mussel rapid response plan, which was discussed at their February 28 meeting. The plan is in its final stages and includes a predetermined response management system that expedites decision-making, information sharing, and seeks to avoid duplication of effort. An interagency response task force will guide the execution of the plan in the event of an invasion. A current version of the plan is available at <http://100thmeridian.org/ColumbiaRT.asp>.

Call to Action

"Stopping the quagga mussel from entering the waters of Columbia River Basin will require the cooperation and vigilance of the general public," says Randy Fisher of the Pacific States Marine Fisheries Commission. "We need everyone who might come in contact with boats to be our eyes and ears. Anglers, people at gas stations, and people using lakes, marinas, and beaches can all help by being lookouts for this invasive mussel." Boaters who have had their watercraft in Lake Mead or other Colorado River reservoirs in the last three years are strongly encouraged to inspect their watercraft for signs of quagga mussels and to contact their state boating or fish and wildlife management agency if they have questions or concerns. It is illegal to possess and transport quagga and zebra mussels, and boat owners are responsible to remove mussels attached to their watercraft. Below is a list of actions boaters (including personal watercraft, canoe, and kayak users) and anglers can do to ensure that their boats, vehicles, trailers and other equipment do not become the means of infecting other waters:

- Drain the water from your motor, live well, and bilge on land before leaving the immediate area of the lake.
- Wash the hull, live well, equipment, and any other exposed surface, and flush the motor and bilges, using hot (over 140 degrees F) soapy water or use a solution of 1 part household bleach to 19 parts water.
- Completely inspect your vessel and trailer, removing any visible mussels, but also feel for any rough or gritty spots on the hull. These may be young mussels that can be hard to see.
- Clean and wash your trailer, truck or any other equipment that comes in contact with water. Mussels can live in small pockets anywhere water collects.
- Air-dry the boat and other equipment for at least five days before launching in any other waterway.
- Dispose of unwanted bait in the trash, and do not use bait that has been exposed to infested waters.

Quagga mussels and zebra mussels are similar in appearance. Adults look like a small clam with a D-shaped shell, usually with alternating dark and light stripes and about the size of your fingernail. Small juvenile mussels that have just recently attached to a surface look like black pepper and feel like sandpaper. If you think you have spotted quagga or zebra mussels call 1-877-STOPANS or 1-877-786-7267.

The 100th Meridian Initiative is a cooperative effort between state, provincial, and federal agencies to prevent the westward spread of zebra mussels and other aquatic nuisance species in North America. The goals of this Initiative are to 1) prevent the spread of zebra mussels and other aquatic nuisance species in the 100th meridian jurisdictions and west and 2) monitor and control zebra mussels and other aquatic nuisance species if detected in these areas. Additional information can be found at www.protectyourwaters.net and www.100thMeridian.org.

DRAFT AGENDA

100th Meridian - Columbia Basin Group

Heathman Lodge
7801 NE Greenwood Drive
Vancouver, WA

February 28, 2007

9:00 - 9:10	Introductions & Announcements	Stephen Phillips, PSMFC
9:10 - 9:15	Comments and Approval of February Minutes	Stephen/Group
9:15 - 9:45	WDT/WIT/ Decon Kits, Training Schedule and Strategy	Bill Zook, PSMFC
9:45 - 10:15	"Zebra & Quagga Mussel in the Pacific Northwest: Is the Sky Falling?"	Thom Whittier F&W Department, OSU
10:15 - 10:45	Lake Mead Update and Containment <ul style="list-style-type: none">• Wild Horse Reservoir• Boater Inspections• Press Release	Jeff Herod/Paul Heimowitz, USFWS Group
10:45 - 11:15	Coordinated Monitoring - Veliger, PCR, Substrate, Diving - Monitoring Committee	Group
11:15 - 11:45	100 th Meridian Website <ul style="list-style-type: none">• Monitoring Database• Web Communication Tool for CRB	David Britton, USFWS, Arlington, TX [call in]/PSU/USGS
11:45 - 12:30	Lunch (Provided for Registrants)	
12:30 - 2:30	Review of Latest Draft of CRB Rapid Response Plan <ul style="list-style-type: none">• Incident Command Response• Notification Protocol and Contacts• Interagency Letter of Agreement• Confirmation/Expertise• Scenarios/Mock Drill• Permitting• Fish Facility Impacts	Paul Heimowitz, USFWS Bruce Sutherland, PSMFC Greg Kovalchuk, PSMFC
2:30 - 2:45	Break	

2:45 – 4:00

Individual Agency Up-dates

Group

4:20 – 4:30

Recap Work Assignments, Set Next Meeting Date

4:30

Adjourn

**100TH MERIDIAN-CRB GROUP MEETING
THE HEATHMAN LODGE – VANCOUVER, WA**

February 28, 2007

Attendees

Name	Organization/Address	Phone	En
Scott Aikin	Bureau of Indian Affairs NW Regional Office 911 NE 11 th Avenue Portland, OR 97232	503-231-6883	sc
Kevin Aitkin	USFWS 510 Desmond Drive SE, Suite 102 Lacey, Washington 98503	360-753-9508	ke
Eric Anderson	WDFW 600 Capitol Way, N. Olympia, WA 98501	425-379-2318	an
Kevin Anderson	PSAT PO Box 60900 Olympia, WA 98504-0900	360-725-5652	ka
Jim Athearn	PSMFC		Ja
David Britton (call in)	USFWS Southwest (Region 2), Fisheries Department of Interior - U.S. Fish & Wildlife Service UTA Box 19498, Arlington TX 76019	817-272-3714	da
Name	Organization/Address	Phone	En
Charlie Chamberlain	USFWS Arcata Fish & Wildlife Office 1655 Heindon Road Arcata, CA 95521	707-822-7201	ch
Joan Cabreza	EPA Region 10 (ETPA-083) 1200 Sixth Avenue Seattle, WA 98101-3188	206-553-7369	ca

Sam Chan	Sea Grant Extension – OSU 307 Ballard Hall Corvallis, OR 97331	503-679-4828	Sa
Tim Counihan	USGS Columbia River Research Laboratory 5501a Cook-Underwood Road Cook, WA 98605	509-538-2299	tc
Tim Darland	USACE PO Box 150 Cascade Locks, OR 97014-0150	541-374-4551	tim
Glen Dolphin	Oregon State Marine Board 435 Commercial St. NE #400 PO Box 14145 Salem, OR 97309-5065	503-378-2625	gle
Robyn Draheim	Portland State University Center for Lakes and Reservoirs-ESR PO Box 751 Portland, OR 97207-0751	503-725-4994	dra
D. M. Fell	MHEP, Inc. (Materials High Energy Processing) PO Box 1113 Astoria, OR 97103	503-861-0916	dm
Name	Organization/Address	Phone	En
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Keith Hatch	Bureau of Indian Affairs NW Regional Office 911 NE 11 th Avenue Portland, OR 97232	503-872-2876	
Paul Heimowitz	USFWS – Region 1 911 NE 11th Ave, 6E Portland, OR 97232-4181	503-872-2763	pa
Randy Henry	Oregon State Marine Board 435 Commercial St. NE #400 PO Box 14145 Salem, OR 97309-5065	503-378-2611	ran

Jeffrey Herod	USFWS 4001 N. Wilson Way Stockton, CA 95205-2486	209-946-6400 X321	jeff
Michelle Hollis	Port of Portland Marine Department PO Box 3529 Portland, OR 97208-3529	503-240-2032	mi
Jim Irish	BPA PO Box 3621 Portland, OR 97208-3621	503-230-5914	jtir
Greg Kovalchuk	PSMFC PO Box 854 Rufus, OR 97050	541-506-7863	gr
Name	Organization/Address	Phone	En
Jill Leary	Lower Columbia River Estuary Partnership 811 SW Naito Parkway, Suite 120 Portland, OR 97204	503-226-1565 Ext 235	Le
Scott Lund	US Bureau of Reclamation Pacific NW Regional Office 1150 North Curtis Road, Suite 100 Boise, ID 83706-1234	208-378-5037	slu
Pam Meacham	WDFW 600 Capitol Way, N. Olympia, WA 98501	360-902-2741	me
Fred E. Partridge	Idaho Department of Fish and Game 600 South Walnut, PO Box 25 Boise, ID 83707	208-334-3791	fp
Stephen Phillips	PSMFC 205 SE Spokane St., Ste 100 Portland, OR 97202	503-595-3100	ste
Allen Pleus	WDFW 600 Capitol Way, N. Olympia, WA 98501		ple
Eileen Ryce	Montana Fish, Wildlife and Parks 1420 East 6th Avenue Helena, MT 59601-3872	406-444-2448	ery

Scott Smith	USGS 6505 NE 65 th Street Seattle, WA 98115	206-526-6282	ss
Name	Organization/Address	Phone	En
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Bill Zook	PSMFC	360-252-2700	bjz