

# Minutes

## 100<sup>th</sup> Meridian Initiative - Columbia River Basin Team Meeting

16 February 2011  
Heathman Lodge  
Vancouver, Washington

**1. Introductions and Announcements:** [See end of document for attendance list]

**2. Comments and Approval of June Minutes:** There were no comments on the October minutes and they were adopted.

**3. Flathead Lake, MT Update:** Eileen Ryce (phone)

- no new evidence of mussel presence
- they are proceeding as if they had a plan in place to increase monitoring and inspections
- they plan to use microscopy and PCR at Flathead as well as at several other locations
- they are training Montana divers so that they don't have to use divers from Michigan again in the future
- Paul Heimowitz asked if they plan to give a more extensive debriefing either in Montana or elsewhere (to include the signatories to the RRP)
- Eileen said they have nothing more planned either formally or on a larger scale. Since they didn't activate the plan, they weren't operating under it.

**4. Update on CRB Plan, Changes to Plan, Positive Definition, 2011 Exercise:** Paul H

- the first official plan amendment is in play under the new process for signatories. They have all state and FWS signatures, Blaine Parker is working on getting a CRITFC signature and Matthias is doing the same for BC.
- Once amended by existing signatories, NOAA is ready to sign.
- The next amendment in the queue is a definition on requirements for a waterbody being designated as "positive", plus changes to how the MAC group chair/co-chairs are selected
- Hopefully this next amendment should go faster after amendment 1 is finished because the approval process will not be new.
- Still want to start a process for cooperating agencies to sign on to the plan. Will just add more names as they sign up. Hope to launch this after NOAA signs the plan.
- Jim Ruff asked what is a "cooperating agency" and Paul said "organizations that have agreed to . . . . ." (he quoted from the draft cooperator form). They have to agree to integrate into the National Incident Management System to participate in the plan implementation.
- we're on a 5-year plan for exercises and Montana is next - Montana's choice would be Lake Koochanusa but other options are open for consideration
- Rian Hooff asked if there are any specific objectives for the exercise and Paul said not yet. A steering committee will be established to develop those goals and work out logistics, with primary reliance on the host state. This exercise could possibly repeat the diver deployment,

building on the new USGS protocols. In the last exercise at Lake Roosevelt, we focused on the permit process but could have done more

- Stephen P - based on the status of BC folks, we want to bring in BC to help get their program going

- Paul H - also want to do more with public information such as exercising the formation of a Joint Information Center and bringing in a team of public information officers. We need to plan ahead to get these folks involved.

- Stephen - difficult to be too comprehensive in a 1 ½ day exercise - best to work with specific objectives

## **5. BOR Double Blind Results, Sampling Standards, PSU Lab Training; ISAC Standards and Certification:**

- Kevin Kelly called-in and presented research findings from “Results of a Community Double-Blind Round Robin Study (Round Robin Study Phase II) (Marc E. Frischer, Sandra A. Nierzwicki-Bauer, and Kevin L. Kelly).”

- funding was from the USFWS plus in-kind resources

- The report can be found at [www.musselmonitoring.com](http://www.musselmonitoring.com)

-Kevin said the next steps for his research group are:

1. Round Robin Study (Phase III). Timeline = Summer, 2011. Testing for temporal and spatial variability (Field Sampling).
2. “Denver II” workshops. Timeline = May, 2011 (at earliest)  
Workshop I: Detection of *Dreissena* Mussel Larvae in Plankton Tow Samples – Technical Best Practices  
Workshop II: Laying the Groundwork for a Laboratory Quality Assurance and Accreditation Program for the Detection of *Dreissena* Larvae in Plankton Samples
3. Pilot Laboratory Testing Program. Goal is to determine and improve the reliability of laboratory performance. Timeline = 2011 spawning season.
4. Evaluation of Sample Handling and Preservation. 12 months study to evaluate the effect on microscopic and PCR detection of veligers after preservation at different % ethanol and temperatures. Timeline = March, 2011 through March, 2012.

- Steve Wells commented that the flow cam and microscopy samples were preserved in 25% ethanol while the PCR samples were in 70% so the comparisons are not the same

- Steve Bollens asked about background plankton composition to find out what else was in the samples - the quantity of other organisms makes a difference

- Kevin said on page 7 of their report, they discuss Quail Lake, where the background plankton came from - included Corbicula, ostracods, and others. He said that the composition would vary with time of year but he thinks it was a good sample that included enough different species

- Paul suggested that it would be good to do the tests with more realistic samples with more complicated matrices. He asked, given the uncertainty of the results, particularly for PCR, how BOR might advise agencies to confirm samples right now while we continue to refine the methods

- Kevin still recommends using PCR along with microscopy – however he noted the recurring lab (labs with more experience) did better than the new labs
- he thinks ZM/QMs are different (when compared to other species) for PCR analysis and there is a learning curve
- folks are using different techniques to extract DNA which leads to variability - therefore he thinks it best to go to the labs with experience
- Kevin thinks that if the various labs doing PCR analysis compared notes on what does and does not work then the results would be better
- Robyn D said if the positive definition includes PCR, if so then we need to start sampling and preserving samples differently
- Paul suggested that we need to include a caveat in the existing draft plan amendment on positive definition regarding associated sample collection/preservation protocols.
- Steve Wells - they have protocols but the main difference is in the concentration of preservatives. If you use 25% ethanol, you can ship overnight and if you use 70% (which PCR labs prefer) you can hold samples at room temperature for months
- he showed a data sheet slide where there was no decreasing trend in samples held 19 months in 70% ethanol held at room temperature
- Steve also said there is talk of buffering samples. After you check the pH, you can add baking soda to those with a low pH to avoid degradation of calcium in sample organisms
- Paul H - for the upcoming field season do we want to use written protocols (to avoid the Flathead Lake situation) that we can put in the plan right now to get signed off for the Columbia River basin?
- Steve W - this has been discussed informally every year without agreement but it is still worth pursuing
- Paul suggested a tentative date of the end of March to get a draft agreement that people could start using by late April
- Steve - the microscopy and the PCR sampling is ok but problems arise when you isolate specimens found through microscopy and send them for PRC analysis. He thinks something happens to the DNA structure during this process but doesn't know what.

**ISAC Standards** – Stephen is on the ISAC EDRR subcommittee that is drafting an outline for a white paper on early detection monitoring, specifically on polymerase chain reaction (PCR) techniques, applicability, scientific ability, validation protocols, and regulatory review. This has been a laborious process and eventually the hope is that a federal agency (Interior, DOA) will take the lead in PCR regulatory oversight.

**PSU Lab Training** - Steve W - leading to standardization on-line format is free

- in-house training in late Apr-June
- they have actual veliger samples available
- Paul H - there are two audiences: 1) labs that are already involved in veliger microscopy and 2) labs that can expand their analytical capacity to begin veliger microscopy (e.g., USFWS Fish Health Centers).

## **6. Watercraft Inspection Training Level II: Wen Baldwin & Dee Davis**

- Dee - handed out materials she uses in the USCG Sea Partners Campaign, which includes the USCGA So. NV Sea Partners Reached which has reached over 50,000 children in So. NV. Dee described her outreach activities and recommendations for further outreach.
- Wen – Wen described the two day Level II classes, which include field decontaminations. Through 2010, 18 states have attended Level Two trainings, including 185 attendees representing 87 agencies, businesses, universities, etc. Wen reminded everyone, when it comes to decontamination “half way measures get half way results and there will be no rematch.” There are 4 level II classes scheduled for the Spring. Go to <http://www.aquaticnuisance.org/wit> for further information.

- Stephen asked about how well the inspection concessionaire is doing
- Wen - quality of work depends on who is doing the inspection - some know and care, some don't
- Wen says that if there is any doubt, anywhere, any time, then err on the side of caution and clean the boat
- Stephen presented award to Wen “2010 Musselman of the Year” on behalf of the CRB Team for all of his mussel fighting efforts over the years.

#### **7. Lake Mead Boater Data:** Stephen

- privacy act issue with NPS regarding information about boats leaving Lake Mead
- the NPS has agreed to share information - they have a form they will send to the state of destination
- the problem is with boats that have been decontaminated but stop somewhere in between Mead and when they get home
- watching how it goes this year - issues include no phone numbers being provided, quality of decontaminations, and questions from agencies in the West about QA/QC for the program
- Wen - the NPS will run out of funds for their coordinator position in December. The former coordinator (Emily Austin) has left her position. Bryan Moore has taken over Emily's duties.
- Concerns regarding Lake Mead prevention activities should be directed to the Lake Mead National Recreation Area Superintendent, Bill Dickinson.

#### **8. Invasive Crayfish:**

- Jeff Adams gave a presentation “Crawdads in the Columbia.” Jeff showed crayfish distribution maps in the PNW and discussed strategies for addressing the invasion. Crayfish research in the CRB has been undertaken by UW, USGS, WSU, PSU and state agencies.
- Eric Larson – gave a presentation “Crayfish in the Columbia River Basin Invasions and Management Implications.” Eric discussed status of native and invasive crayfish in the PNW and regulation and management of crayfish in the PNW states and BC, including pathways of introduction (he surveyed bait shops and aquarium stores and discussed internet trade). Eric mentioned the possible use of native crayfish for classrooms use (such as signal crayfish which are being sold to classes in WA)

- Jim Ruff asked about the effects on native crayfish from non-natives

- Eric - red swamps displaced natives in the Willamette Valley. They are still working on other areas but, where you find *Procambaris sp.*, it is difficult to find natives
- Jeff A asked about opportunities for control - Eric has worked with fishing and harvest and some work with chemicals
- any preference for one species over another? - Eric - most people don't know which species they are harvesting
- Paul - the USFWS has been looking at marmorkrebs. Since they are parthenogenic, do we have evidence that they are reproducing that way in home aquaria?
- Eric - no specifics, but they easily reproduce in captivity
- you also get crayfish that release eggs up to 3 months later so you can see them spread even when you don't expect it
- Sam Chan - there are lots of pathways being revealed by the crayfish study
- invasiveness is a function of size; they (invasive crayfish) are also more fecund and better burrowers (thus better protected during water fluctuations)
- they have noted that, in areas where barn owls occur, they take native crayfish over red swamp crayfish
- Eric - where red swamps have excluded aquatic macrophytes, you end up with more turbid water similar to the effects caused by carp
- Crayfish video by OPB can be found at <http://www.opb.org/programs/ofg/segments/view/1777>

## **9. 2011 State Legislation, Planned 2011 State Inspection and Monitoring Efforts, Interstate Reciprocity:**

### **Legislation:**

#### **Oregon - Lisa DeBruyckere**

- firewood transport - passed House and sent to Senate
- HB 2188 - integrated pest management - mostly school districts
- HB 2338 - felt soles - tabled and dead
- HB 3121 - eliminates the requirement for manually-propelled boats to pay the invasives fee - probably will fail
- HB 3157 - remove invasive species under Adopt a River Program
- HB 3399 - Authorizes State Department of Fish and Wildlife, State Marine Board and State Department of Agriculture to require person to stop and submit recreational or commercial watercraft to inspection for aquatic invasive species.
- SB 342 - Oregon Watershed Enhancement Board funds - look at education and on-the-ground restoration
- HB 2632 - limits fish habitat improvement projects to native fish and prevents bag limits for non-native fish
- HB 3358 - formation of county weed boards and management of funds if any are ever allocated
- SB 81 - requires Department of Environmental Quality to collect fees from vessels regulated by state ballast water management regulations. Revenue will contribute to DEQ ballast water management program activities, including vessel inspections and compliance verification testing.

#### **Washington - Allen Pleus**

- 3 bills:

- 1) sponsored by WDFW to repeal the expiration date (2012) for the boater registration fee
- 2) extension of the Washington Invasive Species Council for 5 years - this is moving forward but there is no funding
- 3) legislation to ban copper-based antifouling paints on recreational boats by 2020 - there is a concern about water quality degradation from copper
  - they tried to reorganize all of their aquatic invasive statutes (to close gaps, correct inconsistencies, etc.) but this will not happen in this legislative session

**Montana** - Eileen Ryce (phone)

- there are three bills being considered:
  - 1) ban on felt-soled waders -- doesn't look like this will be heard
  - 2) sets up an invasive species account under the MFWP for detection and control of invasive species -- since this is a new tax, it will likely be opposed
  - 3) revision to Montana's Invasive Species Act to clean up several items -- she is not sure what the official status/response will be. There is a committee hearing tomorrow and she expects a lot of amendments, including a possible boater sticker fee similar to that in Idaho
- Stephen P asked about the possibility of a fall rapid response exercise at Flathead Lake
- Eileen said it would be better to have it at Lake Koocanusa in order to involve British Columbia and the Corps of Engineers
- Paul H asked if there might be an interest in also doing one at Flathead and Eileen said no since they are close and the same people would be at both. She thinks Koocanusa would bring in partners more directly
- Mark Sytsma asked if they have had any interaction yet with British Columbia on an exercise and Eileen said she has been working with Matthias Herborg

**Idaho** - Amy Ferriter

- Idaho is in the middle of their legislative session and she expects to have a clearer picture next week
- there is a hearing going right now regarding their funding

**Inspections and Monitoring:**

- Rick Boatner - Oregon inspections are shut down for the season
- they are waiting to hear about 2011 (whether the inspections will occur for 4 months, as in 2010 or for only 2)
- Steve Wells - they have funds to look at Oregon waters; will continue the substrate monitoring program and on-line mussel map (if anyone has trouble using it, let Steve know)
- Wen - asked how deep the substrate pipes are located. At Mead they were monitoring too shallow at the beginning and since quagga inhabit deeper waters, they were thriving right underneath us.
- Steve - ideal is 25' but they sample the whole water column if possible
- Amy Ferriter - PowerPoints (map of inspection sites and inspection "passport")
- they sent a letter to boat haulers to get info on boats and to notify them of Idaho's position
- they will give free inspections, otherwise anyone bringing a boat into Idaho is in violation if that boat is coming from an area with infected waters

- Eric Anderson - mentioned his replacement, Sgt. Carl Klein
- their goal is to have 36 inspection stations across the state on roads and at boat ramps
- they are ramping up their pet store emphasis - goal is one per region
- Jesse Schultz - will be working with all regions to coordinate inspections in Washington to begin in April (check stations) plus monitoring
- Bill Zook asked if the check stations will be permanent or mobile - Jesse said both
- Eric Anderson said the permanent stations in Washington are at the ports of entry. He said they caught 6 boats last year with mussels (3 prior to when Idaho began their inspections, none during the time Idaho was inspecting, and 3 after the Idaho stations closed)
- Amy F said that Idaho intercepted 8 contaminated boats in 2010
- Bill Zook asked if all of the contaminated boats were from Lake Mead and Amy said 1/3 were from the Great Lakes (ditto for Washington)
- Eric introduced Deputy Jim Naramore (Clark County) and his efforts to coordinate with other law enforcement entities. There are also several deputies in Spokane involved.
- Jim Irish asked if there is any concern about commercial boats going to Ilwaco for the salmon season
- Jesse - they have proposed check stations for specific opening dates and locations
- Jim Ruff mentioned a new boat decontamination “machine” (heard about it from a Power Council member from Idaho) - some discussion ensued about whether this “machine” was already made or still in development. Amy F hasn’t been involved nor has she seen anything. It is supposedly being proposed by Prefix Corp. and Wen said that they have only built a table top model and never a prototype.

**Reciprocity:**

- Stephen - said there is a draft document for a coordinated effort for watercraft inspections
- all four states use similar watercraft decontamination standards and protocols
- wants states to recognize boats that have been inspected by one state to be recognized by other state inspectors and “fast pass” those people through
- Glen Dolphin - they have been notified in the past by California (email) when they intercept contaminated boats

**Paul H - EPA coordination**

- still trying to coordinate with EPA on permitting, etc.; primary responsibility for FIFRA Section 18 emergency exemptions for pesticide use is based in their Headquarters office. No regional support, although they do have a lead within each state Dept. of Ag. for these permits.
- also trying to get an EPA representative (no replacement for Joan Cabreza yet) to work with. So far EPA’s response has been that they have “staff limitations”.
- he suggests to keep trying to coordinate specific questions and issues with them to see what happens
- Stephen - the action agencies are the ones that have to go to EPA for permitting for mussel mitigation activities (e.g., the Corps of Engineers for their projects)
- Paul H – EPA permits are one of the federal “nexus” actions that could trigger ESA consultations if there is otherwise no federal funding involved in a proposed treatment.

**10. Sea Plane and Don’t Move a Mussel II Videos, UMPS II: Bill Zook**

- Bill discussed the Seaplane Project, New Don't Move a Mussel Video, UMPS's Two Project.

1. Seaplane: Video completed and filmed in conjunction with the National Seaplane Pilots Association – Now available in DVD, YouTube, 100<sup>th</sup> Meridian and PSMFC website .. Available soon on SPA website. Final element of cooperative project w/ SPA is development of on-line training and certification program for seaplane pilots ... SPA will take the lead
2. Don't Move a Mussel II: New video project – Replace “Don't Move a Mussel” – approved for funding (USFWS). Contractor has been hired, filming to begin in March, final product in July. Bill is looking for input on script and filming location.
3. UMPS II: Funding through QZAP RFP, this document will update current UMPS document (the project began last fall). Draft expected in late March. Secondary objective will be to work with the involved states to investigate the possibility of developing a reciprocity agreement and tracking system for watercraft inspections in the Columbia River Basin (model process/program for application elsewhere).

## **11. OSU Sea Grant Project Update; Invasive Species Risk Assessment and Evaluation of Alternative Management Strategies: Sam Chan**

- Sam Chan introduced Youngan Lim, PhD student (OSU) in applied economics who is working on this study (along with Michael Harte and Munisamy Gopinath, OSU). The project will include:

1. Estimating AIS Spatial Dispersal Risk (Species Introduction, Species Establishment)
2. Estimating Damages & Costs from AIS (Damages of Invasive Species, Management Costs)
3. Evaluating Management Strategies (Objective = minimizing total costs)

- Jim Ruff - the IEAB report is on the Power Council web site. Their conclusion was that prevention (of ANS introduction) costs were well worth it compared to the damage costs

- Alan P - asked how to determine probability of ANS establishment

- Sam Chan - base it on what we know about niche requirements and site and biological characteristics

- start with one species (NZMS) and then work with other people on other species

- Mark Sytsma - only showed human dispersal - what about the probability of natural dispersal?

- Sam - he showed a simple model example but there is a lot more in the detailed model that they are actually using

## **12. Aquatic Habitat Restoration Decision Support System: Jocelyn Tutak**

- This USFWS project has the following goals:

1. Optimize resource investment in key watersheds.
2. Respond to climate change and invasive species threats.
3. Enable users to adjust input parameters — such as potential climate change scenarios — and receive real-time results.
4. Visualize results through a mapping interface and compare results of various scenarios.
5. Offer a flexible, open-source tool for free online.

The four key elements of the project:

1. Priority fish species
2. Watershed condition
3. Climate change
4. Aquatic invasive species

The project began last Fall and Jocelyn will be seeking input from CRB Team members in the near future.

- Paul - they are still trying to decide on which species or suite of species to include
- Blaine Parker suggested the Oregon “100 worst species” list or similar lists for other states
- Allen said Washington has a 50 worst list
- Jocelyn asked for feedback on which invasive species to consider (comments to [jtutak@ecotrust.org](mailto:jtutak@ecotrust.org) or [Paul\\_Heimowitz@fws.gov](mailto:Paul_Heimowitz@fws.gov))
- Regarding the invisibility index concept, Mark suggested they could add boat ramps (presence or absence) as a parameter. He also asked if there is and information/data looking at native species richness vs. invasibility

### **13. Member, Issue Updates:**

#### **a. CRB AIS RRM:**

- Scott Smith - they have a web site to show who is monitoring and where (for ZM/QM)
- they are planning to add a section on crayfish and will be asking for input on how to approach this
- they are hoping to get funding to continue some monitoring for ZM/QM adults and plankton

#### **b. Banks Lake WA Survey: Jesse Schultz**

- the lake will be drawn down 9 M this Summer/fall so they are planning to take advantage of the opportunity to survey for AIS, paying particular attention to high risk sites:

1. High risk sites are determined by the potential for establishment based on the water body’s physical characteristics and the probability of introduction through human activities.

2. High risk sites include launches, marinas, hydro facilities, buoys, and other artificial structures, and low water velocity and low light habitats.

-Jesse is looking for cooperators so contact him if you are interested

- Scott Lund - the BOR is also planning to monitor - he thinks it will be plankton tows but needs to confirm that

- Alan P - they will be looking for volunteers to help with their survey - Stephen asked Alan to send an announcement that can be distributed

- Tim Counihan asked if they have any plans to get out early and monitor during the drawdown

- Jesse - yes

#### **c. UNLV Watercraft Decontamination Research Update: Wen Baldwin**

- Wen says the 140 degree temperature target is key (UNLV “Wong” report out within a month)
- zebra mussels are harder to kill than quaggas
- they received a grant from the Forest Service to test zebra decontamination in Kansas this summer. They are waiting for a contract extension to get started (USFS took too long to get funding to UNLV so there wasn’t time to hire a grad student for last season. As soon as we get the extension, we are ready to go.

**d. Tunicates:** - Rick Boatner

- there was a meeting a month ago in Coos Bay
- the Watershed Council is working with University of Oregon on eradication
- Sam Chan - there is some research proposed to look at salinity levels and structure wrapping as control tools

**e. Nutria:** Mark Sytsma

- has a student (Trevor ?) working on a trapping program
- Paul H - awareness is continuing to build - there is a video available  
<http://www.youtube.com/usfws#p/c/0/dxWGHfeAEGI>

- there will be an upcoming segment on National Geographic on the northwest, including nutria

**f. NZMS:** Paul H

- the 6<sup>th</sup> national conference planned in Moscow on 15-16 March
- there will be 1 ½ days of conference and ½ day for a short field trip and workshop
- Kevin Aitkin and others from Washington will be going to talk about Capitol Lake
- Allen P - not much going on since last year (at Capitol Lake)
- the system is managed as a freshwater system so they tried flushing with salt
- there was not much impact on the NZMSs due to inflows diluting the salt concentrations
- timing was bad for the drawdowns last winter -ice coverage insulated the exposed areas
- in areas where they pulled off the ice cover, there was a greater mortality
- he would like to try more exposure/freezing
- Sam C asked about salinity adaptation and how they decontaminated infrastructure that was removed from the lake
- Allen - thinks the salinity was 24 ppt but NZMS have been found to adapt to 64 ppt???? if they were exposed in increments
- he thinks the salinity might be more effective at colder water temperatures
- decontamination was with a hot pressure washer
- Paul H - any plans to repeat their efforts, including surveys to determine if the NZMSs have spread into Puget Sound or other areas?
- Allen - no plans right now except for another drawdown if they get freezing weather
- their problem is a lack of resources

**g. Asian Carp:** Paul H

- we have talked before about initiating genetic monitoring for bighead and silver carp
- monitoring in the mid-west has been controversial - they have been focusing on getting smaller DNA fragments than what we analyze with whole veligers for mussels
- trying to detect environmental DNA (EDNA) - DNA fragments shed off carp if they are present

- Paul has been talking with USFWS colleagues, and researchers at Notre Dame about ways to make the program more operational
- there was a paper put out by Jerde - Paul can put this out on the list server
- right now we're watching the Midwest process to determine when a similar effort would be "ready for prime time" here
- There is an internal USFWS meeting on Friday to discuss next steps for validating carp eDNA methodology at the national level. We may be able to begin taking water samples this year, delaying analysis until the methodology is validated.
- it might be possible to work with the same folks who are out collecting ZM/QM samples if they can mesh the two sampling techniques
- Bill Zook asked what the most likely vector is
- Paul - there is a FWS Columbia Basin risk evaluation report on the web and it seems to be the same as elsewhere in the country: unintentional introductions via bait, intentional for promotion of a fishery (e.g., archery anglers) or for food). The prior concern about possibility mixing with grass carp imports seems to be minimal
- Steve Wells asked how the EDNA samples are preserved
- Paul - didn't remember but also said he's not aware that anyone is looking at how to archive samples (which is relevant to a sample now/analyze later strategy we might use in the CRB).
- Jim Ruff asked if they have found any live samples in Lake Michigan yet
- Paul - not that he's aware of
- Paul said he thinks there will need to be a working group at some time to look into the Asian carp genetic monitoring issue in more detail. He's begun to develop an internal workgroup in USFWS, tapping into the genetics expertise at the Abernathy Fish Technology Center.

**h. PSU Quagga Survival Study:** Mark Sytsma

- said his student, Brian Adair, is at Lake Mead right now working on the survival study
- preliminary results suggest that, as calcium levels are increased in Columbia River water, quagga mussels grow better
- Jim Ruff asked where the Columbia River water came from - he would like to see Snake River water used also
- Mark said the water was from Columbia Snake and Willamette Rivers

**i. PSU Paint Study:** Mark Sytsma

- plan to compare panels at Lake Mead with some installed in the Columbia River
- they had trouble locating a safe location in the Columbia - found one upstream of Camas Washougal and have the concrete panels ready to paint and install
- will monitor the panels for 3 years

**j. NALMS:** Stephen

- he received an email from Dave Lamb about the NALMS meeting scheduled for early November in Spokane
- expects CRB Team folks will be requested to participate

**k. WAAIS Permit:** Kathy Hamel (WADOE) reported recently that WADOE's Aquatic Plant and Algae Management Permit would be final in February. The next task for WADOE will be to

get the Aquatic Invasive Species Management General Permit (It is all ready to go, just needs manager approval). Go to: <http://www.ecy.wa.gov/programs/wq/pesticides/invasive.html>

### **l. Upcoming Meetings:**

- Mark S – PNWER meeting on 20 July in Portland on all invasive species - both aquatic and terrestrial
- Western Aquatic Plant Management Society meeting next month in Colorado
- Madelyn m - the American Fisheries Society will be meeting in Seattle September 4-7, 2011
- WRP will be in San Francisco in October 2011

### **m. Member Updates:**

Scott Lund (BOR) - they plan to continue monitoring at their 30 reservoirs  
- they have established 3 teams to work on facility vulnerability assessments

Madelyn Martinez (Corps - Seattle) - plan to continue ZM/QM monitoring (working with PSU)  
- a Eurasian watermilfoil MOU is being developed in Okanogan County  
- milfoil control is continuing at Albeni Falls Dam with an accompanying study

Carson Keeler (Grant County PUD) - continuing ZM/QM monitoring (plankton tows and artificial substrates)  
- they did shoreline surveys in September - both reservoir and at boat launch areas  
- continuing information and education efforts  
- have not done any facility vulnerability assessments

Al Sutlick (Corps - Walla Walla) - plan to do a similar level of monitoring as last year  
- Al offered to help sample for Asian carp DNA  
- they issued a contract last year for facility vulnerability assessments  
- they are collecting additional water quality data  
- he is still working on self certification at boat ramps  
- there will be a level 1 training program for resource managers and rangers in 2 weeks in the Tri-cities

Blaine Parker (CRITFC)  
- the Affiliated Tribes of Northwest Indians passed a resolution in December on invasive species to give them a means for possible funding, coordination, etc.  
- Stephen will send out a copy to the web list

Paul H (USFWS)  
- they are having more copies of the Asian card watch card printed that will be out soon  
- the WRP brochure, “Threats to the West”, is being updated. It will include some new species, including mussels. Funding for printing is available through the WRP, but a designer/printer has not been set.

- Paul asked Wen B about getting more mussel-coated outreach materials (props, etc.) and wondered if Wen needs more help getting these prepared to meet demand.
- Wen - he is doing as many as he can with the limited secure space in his boat slip
- QM growth last summer was slow and he doesn't know why - also, settling and growth is inconsistent between substrates

Tim Darland (Corps - Portland)

- thanked PSMFC, PSU, and BPA for support with veliger monitoring
- they plan to continue monitoring for both veligers and adults (substrate)
- they have participated in various outreach activities (sports shows, etc.)
- they are looking into doing an update of the Bonneville risk assessment

**14. Public Comment:** None

**15. Recap Work Assignments, Set Next Meeting Date:** Next meeting will be on **22 June 2011** at a site to be determined in the Portland/Vancouver area.

Adjourn at 1600 hours.

**Attendance list**

Adams	Jeff	University of Washington
Anderson	Eric C.	WDFW
Athearn	Jim	PSMFC
Baldwin	Wen	Independent -PSMFC Contract Trainer
Boatner	Rick	ODFW
Bollens	Stephen	WSU
Cabreza	Joan	PSMFC
Capurso	James Samuel	USDA Forestry Service, Pacific NW Region
Chan	"Sam"	OSU, Sea Grant Extension
Counihan	Tim	USGS, Western Fisheries Research Center
Crouse	Mike	PSU
Darland	Timothy	US Army Corps of Engineers
Davis	Dee	Independent (PSMFC WIT LII Instructor)
DeBruyckere	Lisa	Creative Resource Strategies, LLC

Dolphin	Glenn	Oregon State Marine Board
Draheim	Robyn	Portland State University
Hardiman	Jill	USGC, Western Fisheries Research Center
Hatch	Keith	NWRO BIA
Heimowitz	Paul	US Fish and Wildlife Service
Hooff	Rian	Oregon Dept. of Environmental Quality
Irish	James T.	Bonneville Power Administration
Keeler	Carson	Grant County PUD
Larson	Eric C.	U of W
Lin	Youngah	OSU
Lund	Scott L.	US Bureau of Reclamation
Martinez	Madelyn	US Army Corps of Engineers
Maze	Dominic	City of Portland Environmental Services
Naramore	James	Clark County Sheriff's Office
Parker	Blaine	Columbia River Inter-Tribal Fish Commission
Phillips	Stephen	PSMFC
Pleus	Allen	WDFW
Ruff	James "Jim"	Northwest Power and Conservation Council
Shultz	Jesse	WDFW
Smith	Scott	USGS, Western Fisheries Research Center
Sutlick	Albert F.	US Army Corps of Engineers
Sytsma	Mark	PSU
Turner	Corey	Washington State Patrol
Wells	Steve	Portland State University
Zook	William "Bill"	PSMFC

