

**Aquatic Task Group Meeting  
November 28, 2006**

Present:

<b>Name</b>	<b>E-mail</b>
Bob Bukantis	<a href="mailto:bbukantis@mt.gov">bbukantis@mt.gov</a>
Mike Sweat	<a href="mailto:mjsweat@usgs.gov">mjsweat@usgs.gov</a>
Windy Davis	<a href="mailto:wdavis@montana.edu">wdavis@montana.edu</a>
Tina Laidlaw	<a href="mailto:laidlaw.tina@epa.gov">laidlaw.tina@epa.gov</a>
Dave Peterson	<a href="mailto:davep@usgs.gov">davep@usgs.gov</a>
Don Skaar	<a href="mailto:dskaar@mt.gov">dskaar@mt.gov</a>
Bud Stewart	<a href="mailto:Bud.stewart@wgf.state.wy.us">Bud.stewart@wgf.state.wy.us</a>
Bob Bramblett	<a href="mailto:bbram@montana.edu">bbram@montana.edu</a>
Tiffany Holland	<a href="mailto:Tiffany.holland.@yahoo.com">Tiffany.holland.@yahoo.com</a>
Larry Gerard	<a href="mailto:larry_gerard@blm.gov">larry_gerard@blm.gov</a>
Peter Wright	<a href="mailto:pwright@usgs.gov">pwright@usgs.gov</a>
Jeremy Zumberg	<a href="mailto:jzumbe@wyoming.gov">jzumbe@wyoming.gov</a>
David Zafft	<a href="mailto:david.zafft@wyoming.gov">david.zafft@wyoming.gov</a>
Joe Platz	<a href="mailto:jplatz@blm.gov">jplatz@blm.gov</a>
John Kilpatrick	<a href="mailto:jmkilpat@usgs.gov">jmkilpat@usgs.gov</a>
Steve Regele	<a href="mailto:sregele@mt.gov">sregele@mt.gov</a>
Brad Schmitz	<a href="mailto:Brschmitz@mt.gov">Brschmitz@mt.gov</a>

Aida Farag was present –via- conference call.

Meeting began at 8:30 a.m.

**USGS-Dave Peterson presentation (CBNG Aquatic Monitoring)**

- (1) In 2006, USGS sampled fish, macro-invertebrates, and major ions at all of the sites completed last year, except for six sites in MT.
- (2) The 2006 field season was much drier than 2005.
- (3) Four sites were dry and were replaced with other sites.
- (4) Bug samples have been sent to the BugLab.
- (5) An agreement needs to be created between BLM and WYDEQ for the Chironomid samples. This will be completed by Joe Platz. Funding for this is available through DOE funds.
- (6) An agreement needs to be created between BLM and MSU for the fish voucher samples. This will be completed by Joe Platz. Funding for this is available through DOE funds.
- (7) The fact sheet for 2005 monitoring data is located in:  
<http://wy.water.usgs.gov/projects/atg/index.htm>.
- (8) The macro-invertebrate data took approximately one year to receive data back from the Buglab.

Potential tasks for 2007:

- (A) Final Report
- (B) Aerial photography
- (C) Field sampling

### **WGFD (Bud Stewart) presentation: CBNG aquatic monitoring**

#### Fish and Habitat Survey

- (1) Surveyed fish and habitat at ten study sites (8 Powder River and 2 Crazy woman Creek).
- (2) Surveyed five habitat types for fish which consisted of: pools, riffles, runs, backwater, and shoals (shallow areas less than 3 inches in depth).
- (3) If there was no flow, they surveyed six isolated pools or puddles.
- (4) On Clear Creek, near the mouth, culverts were found that blocked fish passage. They were removed in a relatively short period of time. Culverts were constructed by the CBNG industry.
- (5) Habitat surveys in 2006 consisted of 30 transects for each study site. In 2005, USGS mapped habitat with GPS units.
- (6) Data will be incorporated into the USGS Report. Dave Zafft and Dave Peterson will work on this.

#### Amphian/Reptile Survey

- (1) Amphibian/Reptile surveys were conducted on tributary drainages to the Powder River in 2006.
- (2) Surveys included: Visual, Road Kill, Calling and Turtle Trapping.
- (3) A report will be completed by the spring of 2007 (Funded through EPA grant – Brent Trichowski).

### **MSU (Windy Davis) presentation: CBNG development effects on fish assemblages**

- (1) Study was completed on tributary streams.
- (2) Consists of four components with one added this year (in situ water toxicity tests).
- (3) Had some problems with obtaining access.
- (4) Had some dry sites.
- (5) Water quality was taken at every site in 2006.
- (6) Lori Johnson is conducting a toxicity study in Beaver Creek. Joe needs to get information, if possible.
- (7) Data is still being processed and analyzed at this time.
- (8) Fully funded project.
- (9) Some preliminary findings indicated:
  - a. Some species were only found in treatment sites and some only found in control sites.
  - b. Squirrel Creek loses diversity of species downstream, whereas, most streams gain diversity. There are big differences in water quality. These water quality differences may be natural or anthropogenic-caused.

- c. Species richness tended to drop in treated and control streams.
- d. Thesis completion is scheduled for May 2007.

**MSU (Tiffany Holland): CBNG development effects on amphibians/reptiles**

- (1) Potential of nineteen species of herptiles (9 are species of special concern) in the project area.
- (2) Conducted visual observations at the same sites as Windy Davis.
- (3) Final report will be completed in January.

Recommendations:

- (a) Further monitoring needs to be conducted, especially on species of special concern.
- (b) Research on recruitment and survival.
- (c) Research on lack of seasonality of CBNG product water.
- (d) Road kill.

**USGS/MTDFWP (Don Skaar & Aida Farag): Fish toxicity**

- (1) Conducted in-situ toxicity on 2 day old and 1 week old fathead minnows in CBNG product water streams and control streams without product water.
- (2) Streams included Burger Draw, Beaver Creek, SA Creek, Powder River and Clear Creek.
- (3) Control streams were the Powder River and Clear Creek.
- (4) Research found a significant reduction in survival of 2 day old fathead minnows between control and product water streams. This is primarily due to bicarbonate levels.
- (5) The lab indicated that the 1<sup>st</sup> week of fishes' life stage is vulnerable to bicarbonate levels found in CBNG product water.
- (6) Most toxicity tests are not completed on 2 day old fish.
- (7) Timing of output may assist in the survival of young fish in some streams.
- (8) Access was an issue with this research.

Future plans:

- (a) Additional in-situ water quality tests for sturgeon.
- (b) Additional acute and chronic lab research with fish, ceriodaphnia, amphibians, and algae in the winter/spring of 2007.
- (c) Develop a bicarbonate standard to be brought before DEQ, etc. by 2008.
- (d) Present research findings to IWG at the next meeting.
- (e) The above work is fully funded. Additional work (mixing zones, etc.) is not currently funded.

**Other Discussion:**

- (1) Need to address private land access with IWG.

- (2) Provide funds for Don Skaar and Aida to conduct water quality tests on treated product water and within mixing zones.
- (3) Discharge of product water changes from day to day and season to season in many of the streams. Streams flow water one day and not the next. Larry Gerard observed the Powder River raise ½ foot once the irrigation season was over in MT. This could be due to CBNG product water, lack of irrigation in agriculture areas, precipitation or all of the above.
- (4) There are many fords being constructed across streams and rivers within Wyoming.
- (5) Funding for ATG research and monitoring is always an issue and needs to be brought to the IWG.
- (6) Paul Beels is no longer ahead of the IWG. Larry indicated that Tom Bills is the new coordinator.
- (7) Agreed to not have fact sheets in 2007.
- (8) Need to have a meeting with IWG to present all of the aquatic monitoring and research that is currently being conducted. Suggestion was to also have the Water Group there, but no Air or Wildlife Task Groups. Presentations will specifically address any “red flags” to aquatic life and additional resources needed.
- (9) The next ATG meeting will be after the IWG meeting. Suggestion was made to coordinate a field trip with the IWG or ATG meetings. Suggestions were made to have this meeting in late January or early February.
- (10) The appropriate agencies conducting monitoring and research will further analyze data and prepare a presentation for the IWG. An introduction and conclusion will be apart of the presentation (completed by Joe Platz). Copies of the power points will be sent to Joe Platz prior to the meeting dates.
- (11) The BLM has \$143,000 available for 2007.
- (12) The WYDEQ has \$50,000 earmarked for Aerial imagery and \$48,000 for the USGS interpretive report. Jeremy indicated that more funding may be available.
- (13) USGS is matching an approximate total of \$34,000 for the interpretive report.
- (14) The USGS interpretive report will cost approximately \$190,000. Therefore, there are \$33,000 BLM funds that will be applied to another project.
- (15) The ATG formed an aerial imagery subgroup with Larry Gerard in charge. They will work to provide a presentation on the pros and cons to different imagery for the next ATG meeting.
- (16) Taking into account that the MSU research project is fully funded and most of Don Skaar/Aida Farag’s research is funded, the group agreed that the USGS report for 2005/2006 data was the number one priority. There appears to be appropriate funding for the report at this time.
- (17) The ATG agreed to prioritize additional work. There are some funds available for this work, but for the most part, funding is not adequate.
- (18) Additional priorities for funding (Greatest to least: these were voted on):
  1. Mixing zone and treated water quality tests
  2. Aerial imagery
  3. USGS aquatics field sampling

4. Amphibian/reptile literature review
5. University of WY research project
6. Amphibian/reptile research
7. Amphibian/reptile monitoring

**Conclusion:**

- A.** Agreements to obligate funds need to be completed for chironomids, fish vouchers and the final report. Joe Platz and Larry Gerard are responsible.
- B.** No fact sheets will be completed for 2007.
- C.** MSU research completion (fish assemblages): May 2007.
- D.** MSU research completion (amphibians/reptiles): January 2007.
- E.** USGS will begin to work on the Final Report. Dave Peterson and Dave Zafft will work on the incorporation of WGFD data.
- F.** Lori Johnson will be contacted by Joe Platz about the Beaver Creek research.
- G.** Additional water quality tests will be completed by Aida Farag and Don Skaar to assist in developing a bicarbonate standard.
- H.** Private land access for sampling needs to be addressed with IWG.
- I.** Funding needs to be addressed with the IWG.
- J.** The aerial imagery subgroup will work to provide a presentation on the pros and cons of different imagery for the next ATG meeting.
- K.** Need to have a meeting with IWG in late January or early February to present aquatic monitoring and research. The appropriate agencies will prepare a presentation for the IWG. Presentations will specifically address “red flags” and additional resources needed. An introduction and conclusion will be included (completed by Joe Platz). Copies of the power points will be sent to Joe Platz.
- L.** Suggestion was to have the Water Group at the above meeting, but no Air or Wildlife Task Groups.
- M.** The next ATG meeting will be after the IWG meeting. Suggestion was made to coordinate a field trip with the IWG or ATG meetings.
- N.** Funding obtained will go to the ATG priorities, respectively, unless funds are specifically earmarked for a particular project (refer to # 18 above).
- O.** Send any potential grants or cost shares to Joe Platz.
- P.** Tom Bills is the new IWG coordinator (307-684-1133).