

Powder/Tongue River Basin Advisory Group  
Meeting Record  
Kaycee, Wyoming  
July 16, 2003

**Welcome**

Facilitator Sherri Gregory welcomed the group and the meeting was called to order at 6:01 p.m. All attendees introduced themselves, followed by a review of the overall meeting agenda. A sign-in sheet was passed around to record attendance. The next meeting is scheduled for November 19 in Story.

**Water Development Commission Report**

Barry Lawrence updated the BAG on the status of the plans for the other basins. The BAG for the Northeast Wyoming Basin will be meeting July 17 in Lusk. Open houses for the Platte River Basin were held June 2 – 4 in Saratoga, Douglas and Pine Bluffs. Barry discussed the status of all basin studies, and agendas for future meetings.

**Kaycee Flood**

Tom Knapp of the Kaycee City Council presented an overview of the Kaycee flood. Total storm precipitation was estimated at 6+ inches of rain during a 7-hour period, which resulted in a flash flood from the Murphy Creek drainage. 19 trailers, 22 homes, and 12 of Kaycee's 15 businesses were damaged or destroyed. Governor Geringer declared the area a disaster area. Total damage was estimated in the range of 3 to 4 million dollars. The town is coordinating with NRCS, FEMA, and the Army Corps of Engineers in the development of a flood mitigation plan.

**Geochemistry of Coalbed Methane (CBM) Disposal Ponds**

Rich Jackson, University of Wyoming, presented the outline of a proposed 3-year study of CBM disposal ponds. The goal is to determine pond water quality by reviewing the chemical and biological data for indicators of water quality. Water samples will be taken from 20 sites across 5 watersheds, with 4 water samples (2 from discharge, 2 from ponds) and 1 sediment sample done at each site. Additionally, biological samples will be taken, with 4 samples of vegetation and aquatic insects done at each site. Initial water quality and how it changes over time will be determined.

The fate of iron, barium, arsenic, and selenium in pond water and sediment will also be investigated. The effect of CBM water on wetlands plants and aquatic insects will also be studied. Ultimately, this research will evaluate chemical and biological changes of CBM discharge ponds based on watershed properties; predict beneficial uses; and help manage CBM water resources.

### **The National Weather Service in the Powder River Basin**

Joe Sullivan and Melissa Smith of the National Weather Service (NWS) presented an overview of their agency. The NWS, which is affiliated with the National Oceanic and Atmospheric Administration, has 123 offices nationwide with 13 river basin centers. The Riverton office serves this basin. NWS information can be accessed through the NOAA weather radio, the national website <http://www.nws.noaa.gov> or <http://weather.gov>, the local website <http://www.crh.noaa.gov/riw>, or by telephone (800)211-1448 or locally (307)857-3898. Of particular interest on the national website are the Advanced Hydrologic Prediction Service (AHPS), Hazardous Weather Outlooks, 7 day advance forecasts, radar images, and climatological data. The Riverton office website includes local and regional weather information as well as satellite imagery and warnings.

Joe requested that the public assist the NWS by reporting observed severe weather conditions, including tornadoes, flooding, large hail, damaging winds, heavy snow, or dense fog to the Riverton office.

An overview of the August 2002 flash flood near Kaycee was also presented. Between 11:30pm on August 26, 2002 and 1:00am on August 27, radar and satellite imagery estimated 3 inches of rainfall occurred along the tributaries of the Middle Fork of the Powder River, 10 miles from Kaycee. At 1:05 am, the NWS issued a flash flood warning. Rain continued to fall during the night, with estimates of total precipitation received at 6.0 to 7.4 inches over a 12 square mile area. 41 homes, 12 businesses, and most buildings in town were damaged at a loss of \$3 million. It should be noted that Murphy Creek, which is normally a dry creek bed, had an estimated peak discharge of 13,500 cfs.

### **CBM Update**

Mickey Steward, Coalbed Methane Coordination Coalition, indicated that the CBMCC has revised and refined its goals and objectives because of the multitude of issues surrounding CBM. The new goals are meant to minimize problems associated with CBM by focusing on county and residential issues. Discussion followed.

Mickey presented a variety of reclamation scenarios for CBM wells. She further discussed "industrial landscaping" and potential accompanying results. Currently, 20,000 to 30,000 wells have been permitted, but only a small fraction of that number have been drilled. Not all of the water associated with these wells can be used for irrigation purposes.

The meeting adjourned at 8:03 P.M.