Northeastern Wyoming Basin Advisory Group
Meeting Record
City Council Chambers – Sundance
April 12, 2001

Welcome

The facilitators opened the meeting at approximately 6:00 pm and reviewed the agenda to set the expectations for the meeting. Participants introduced themselves by stating their name, affiliation, and place of residence. The facilitators sent a sign-in sheet around the room.

The facilitators stated the next two BAG meetings, as selected by the BAG members, would be held June 14th in Lusk and August 9th in Wright. A coalmine tour is being planned in conjunction with this later meeting. The BAG then scheduled the October meeting for the 11th in Hulett.

River Basin Planning Status Report

Barry Lawrence reported that the final plan report for the Green River Basin is now complete and ready for distribution. He indicated that as a result of the high cost of reproduction of the plan documents, the Wyoming Water Development Commission is promoting online distribution through the waterplan website. Robin Gray of the Water Resources Data System reported she is now in the process of putting the final Green River plan on the water plan website. The plan documents can also be obtained on a compact disc from the WWDC and WRDS. Barry reported that the Green River BAG continues to be very active and their next meeting will be held July 10th in the Savery/Baggs area. This meeting will be held in conjunction with a tour of the future site of the High Savery Dam. He invited everyone to participate in the July 10th meeting and tour.

The planning team is reviewing the first draft of the final Bear River Basin Plan and comments will be given to the consultant soon. The WWDC will present the draft plan at a meeting of the Bear River Compact Commission. Barry indicated that the Bear River Compact Commission is planning a tour of the Bear River Basin from the headwaters to Bear Lake on August 13th and 14th. He asked anyone interested in participating in the tour to contact him for more information.

The Powder/Tongue study is continuing with the BAG meeting April 11th in Buffalo. Topics of discussion were similar to that of the Northeast BAG meeting, with the addition of a special report by Mark Gordon on the Ucross Ranch CBM Study. Consultant work is continuing at a similar pace as well.

The BAG formation meetings for the two new river basin planning studies, the Wind/Bighorn Basin and the Snake/Salt Basins, will be held May 14th in Thermopolis and May 15th in Jackson, respectively.

Coalbed Methane Coordination Coalition – Mickey Steward

Following introductory remarks explaining coalbed methane development in the Powder River Basin and in Wyoming in general, Mickey presented development statistics and projections.

Question: How much water is produced by the CBM wells?
Response: During the month of December of 2000, 28,100,653 barrels of water were pumped to produce 12,364,460 MCF of gas, an average of about 2.5 barrels per MCF (1 barrel is about 42 gallons). The amount of water produced per unit of gas produced varies widely throughout the basins and varies with the age of the well.

Question: Where is the water measured?
Response: Water is measured at the wellhead; the same place the gas is measured. The measurement is of actual water pumped, not NPDES discharge water.

Mickey indicated that she would develop an estimate of the number of wells expected to be drilled in the Northeast Basins, and the quantity of water expected to be discharged into the various drainages. These estimates will be presented at the June meeting.

She presented the following "revised" list of limitations on CBM growth: 1) infrastructure; 2) water management; 3) technology on recovery (improving recovery), 4) gas regeneration, and 5) citizen complaints – litigation (water trespass and diminution, compressor noise, light from compressor stations, dust, trash, general nuisance, weeds). She then briefly discussed the relationship between the work of the CBMCC and river basin planning.

Consultant Update – HKM Engineering

Wade Irion presented a status report of the activities of the consulting team. He discussed each of the tasks and subtasks included in the scope of work and presented the status of each. To date most of the effort of the consulting team has been on Task 2, which is to define the water resources of the basin. Work has now begun on Task 3. Wade explained that the Powder/Tongue Basin study is proceeding on a schedule similar to the Northeast study.

Preliminary Results: Basin Water Use Profile – HKM Engineering

Irrigated Lands Mapping – Wade Irion presented the results of the irrigated lands mapping task. For the Northeast Wyoming Basins a total of 86,880 acres were mapped, compared to 31,384 acres that were mapped in 1971. He explained this significant difference does not mean there has been a large increase in irrigation; rather the current study identified irrigated land that was missed in the 1971 mapping (spreader dikes, kickouts, etc.).

Diversion Operation Memoranda – Chris Ewers explained how ditches were selected for investigation. Chris described what information was collected about the selected ditches, and how it was collected. He then displayed and discussed the memorandum prepared for the Murray Ditch as an example of the information that will be available.

Storage Operation Memoranda – Chris Ewers explained how reservoirs were selected for investigation. He explained that the Safety of Dams database in the office of the State Engineer revealed that there are a total of 209 reservoirs in the basins with a capacity greater than 50 acre-feet and/or a height of 20 feet or greater. Information on these reservoirs was compiled into a database. Working with the State Engineer's Office, a total of six of these reservoirs were identified as significant to the drainage having a storage capacity in excess of 1,000 acre-feet. Storage operation memoranda were prepared for these six facilities. Chris described what information was collected about the selected reservoirs, and how it was collected. He then displayed and discussed the memorandum prepared for one of the reservoirs as an example of the information that will be available.

Municipal Water Use – Dayton Alsaker discussed how the municipal water use profile was developed and the type of information collected for the thirty-four public water systems in the basins. He noted all municipal use in the Northeast basins is from groundwater. He then presented a summary sheet for the Town of Wright as an example of the data that has been collected for each of the systems. Summary data of municipal water use was presented.

Domestic Water Use – Dayton Alsaker discussed how the water use profile was developed for domestic uses. The population served by individual domestic supplies was computed by subtracting the population served by public water systems from the total population of the basins. Approximately two thirds of the population is served by municipal systems and one third by individual domestic wells. The estimated range of domestic water use was then given by multiplying this population by a per capita water use rate of 150 to 300 gallons per day.

GIS Presentation – Wade Irion and Alan Telck presented a demonstration of the GIS (Geographic Information System) work product. The irrigated lands mapping and groundwater wells data themes were presented and discussed.

Keyhole Reservoir Operations – Curt Anderson, U.S. Bureau of Reclamation

Curt explained that the Rapid City office of the Bureau of Reclamation manages Keyhole Reservoir. Keyhole Dam was constructed in 1950-52 to provide a supplemental water source for the Belle Fourche Irrigation District (which was developed around the turn of the century) and lands along the Belle Fourche River in Wyoming. Curt distributed and discussed charts and graphs depicting the storage configuration and historic and current operations of the reservoir.

Question: Has the operation of Keyhole Reservoir been impacted by CBM development?
Response: No.

Question: Is evaporation the largest consumptive use of Keyhole Reservoir?
Response: Yes.

Question: How is the silt level in the reservoir determined?
Response: From a survey of the bottom of the reservoir using a sonar system.

After brief concluding remarks, the meeting was adjourned at approximately 9:15 pm.