

**Powder / Tongue Basin Advisory Group  
Meeting Record  
Dayton Town Hall, Dayton, WY  
June 13, 2001**

**Welcome**

The facilitators opened the meeting at 6:10 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 that the next two BAG meetings, as selected by the BAG members, will be held August 8<sup>th</sup> in Story and October 10<sup>th</sup> in Kaycee. The BAG then scheduled the next meeting for December 12<sup>th</sup> in Sheridan.

**Updates on Other Basin Plans**

Jon Wade updated the BAG on the status of the plans for the other basins. The Northeast Basin planning process is on a similar time frame to that of the Powder/Tongue River Basins. He reported the plan for the Green River Basin has been completed and the task of placing the plan on the website is nearly complete. The review of the draft plan for the Bear River Basin has been completed and the plan is being finalized by the consultants. Consultants have been selected for the two new studies, the Wind/Bighorn Basins and the Snake/Salt Basins. BAG formation for these two new studies began in May and will be completed in June.

**Consultant Update – HKM Engineering**

Wade Irion reported that the preliminary results of Task 2 were presented to the BAG at the last meeting and this task has been completed except for a couple remaining items. Collection of data on future recreational and industrial water use is in process at this time. Gary Watts, the economist for the team, is conducting this later investigation.

The majority of the effort exerted by the consultants at this time has been on Task 3, the determination of available surface water and groundwater. Wade then explained this task consists of the following:

1. Surface water data collection and study period selection;
2. Surface water data synthesis;
3. Spreadsheet model development;
4. Surface water model calibration;
5. Available surface water determination; and,
6. Available groundwater determination (based on previous and ongoing groundwater evaluations).

## **Surface Water Hydrology – HKM Engineering**

Wade Irion then explained the surface water hydrology work required to develop the spreadsheet models. These models are then used to determine the availability of surface water. The presentation specifically addressed how existing water data was collected, how the study period of 1970 to 1999 was selected, and how missing data was synthesized.

Question: Are the “average” streamflow values the mean or the median?

Response: The arithmetic mean.

Question: Does the method used to estimate streamflow values at ungaged locations account for differences in vegetation?

Response: The method does not directly account for differences in vegetation. The method accounts for differences in location, i.e. mountainous versus plains, which indirectly accounts for different vegetation associated with these locations.

Question: Does HKM have a feeling relative to the accuracy of the synthesized data?

Response: The accuracy of the synthesized data was determined to be within accepted limits of accuracy required for hydrologic evaluations.

Question: Were measurements of precipitation, snowpack, wind velocity, etc. used to synthesize missing data?

Response: No. Concurrent monthly streamflows from nearby hydrologically similar gaged streams were used in lieu of precipitation, snowpack or other climatic data or basin characteristics to estimate missing monthly streamflows.

Question: Were comparison techniques used to check the reasonableness of synthesized data?

Response: No. The reasonableness of synthesized data is evaluated in the calibration process when model predicted streamflows are compared to recorded streamflows at downstream points.

Question: What happens to the spreadsheet model after the plan is complete?

Response: The model will be on the water planning website available for use by the general public and available for updates or refinements as additional data becomes available.

## **Lake DeSmet Update – Bruce Yates**

Bruce Yates, the project manager for the Lake DeSmet Joint Powers Board, explained the history of how Lake DeSmet was acquired from Texaco by Sheridan, Johnson, and Campbell counties. He noted the acquisition was completed in February of 2001. He described the current ownership of the storage in the lake and the contracts for water delivery that the Joint Powers Board is obligated to meet. Bruce indicated the Joint Powers Board is considering the formation of an advisory board to plan for future use of Lake DeSmet. Future uses will include recreation, fishery development, irrigation, and municipal use. Bruce indicated the Joint Powers Board is interested in generating revenue to offset operating costs.

Question: How much of the storage was retained by Texaco?

Response: 1,750 acre-feet of storage plus some contract water for use on their ranch.

Question: Is CBM development having any impact on Lake DeSmet?

Response: There are currently no CBM wells discharging into the lake, and there have been no requests to discharge into the lake. The counties will likely require testing before allowing CBM water to be discharged into the lake.

Question: Is there a priority of storage rights?

Response: Yes.

### **Coalbed Methane Activities Update – Mickey Steward**

Mickey reported that the *Dead Horse Creek Drainage Basin Water Management Study* has been drafted and is currently under review. She explained the study was funded by industry and therefore is not a public document. This study began in 1999 near the beginning of CBM development and provides baseline data on the hydrology and soils in the Dead Horse watershed. The data in the report will be a management tool for CBM development in the drainage.

### **Basin Roundtable Work Session**

The facilitators explained that at previous BAG meetings ten water resource issues and associated subissues had been identified. The BAG previously began combining the subissues and prioritizing them by drainage basin under each of the main issues. The BAG then completed prioritizing the subissues under the **Future Use Projection** issue as presented in the following table:

#### **Issue: Future Use Projections**

Subissues	Little Bighorn River	Upper Tongue River	Lower Tongue River	Upper Powder River	Lower Powder River	Little Powder River
Technology, Industry and Energy Use	3	3	1	2	1	1
Agriculture / Technology	2	1	1	1	1	1
Aesthetic / Visual Use / Recreation / Tourism	1	1	3	2	2	3
Carrying Capacity – Sustainability	1	1	1	1	1	1
Population Projections / Pressures on Infrastructure	3	1	2	3	3	3
Government Use (Forest Service, BLM, State, etc.)	2	3	4	3	2	2

The facilitators next divided BAG members present into seven groups and assigned the remaining issues to each of these groups. The workgroups then combined and prioritized the subissues under the main issues assigned to their group. The facilitators explained the results of the work of each of the workgroups would be presented to the BAG at the next meeting for discussion and acceptance.

The meeting was adjourned at approximately 9:00 pm.