

**Northeastern Basin Advisory Group  
Meeting Record  
Niobrara County Fairgrounds – Lusk, WY  
June 14, 2001**

**Welcome**

The facilitators opened the meeting at 6:05 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, would be held August 9<sup>th</sup> in Wright and October 11<sup>th</sup> in Hulett. The Wright meeting will also include a coal mine tour earlier in the afternoon. The BAG then scheduled the next subsequent meeting for December 13<sup>th</sup> in Moorcroft. The BAG elected to change the meeting time for the December meeting from the evening to the afternoon (1:00 pm to 4:00 pm).

**Updates on Other Basin Plans**

Jon Wade updated the BAG on the status of the plans for the other basins. The Powder/Tongue Basin planning process is on a similar time frame to that of the Northeast 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.

Jon reminded the BAG of the coal mine tour to be held prior to the August BAG meeting. Tom Doll of Barrett Resources offered a tour of CBM activities that could be held in conjunction with the coal mine tour. State staff will try and arrange such a combination tour and will notify BAG members in advance.

Jon then introduced Pat Tyrrell who made a few remarks regarding his first few months as the new Wyoming State Engineer.

**Conclusion of the Issues Identification Process**

The facilitators explained that at previous meetings, BAG members combined, rearranged, and prioritized water resource sub-issues under main categories. This process continued with the last and final issue, which was that of **Regulatory** as presented in the following table.

<b>Issue: Regulatory Subissues:</b>	<b>Upper Belle Fourche</b>	<b>Lower Belle Fourche</b>	<b>Niobrara River</b>	<b>Little Missouri</b>	<b>Cheyenne River</b>
EPA: wetlands, AFO/CAFO, TMDLs	1	1	1	1	1
BLM: T&E Species	1	1	1	1	1
DEQ/WQD: stream classification, source point pollution problems	1	1	1	1	1
SEO: groundwater permitting process	1	1	2	1	1
USFWS: T&E Species	1	1	1	1	1
Corps of Engineers: wetlands	1	1	1	1	1
Conflicting government goals with private owners caught in the middle	1	1	1	1	1
US Bureau of Reclamation	1	1	X	X	X
Game & Fish	1	1	1	1	1
Forest management, or lack thereof, affecting water quality	1	1	X	1	1
Governmental taking of water and/or land	1	1	1	1	1

### **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: Was the streamflow data below Keyhole Reservoir adjusted for the operation of the reservoir before selecting wet, normal, and dry years?

Response: The selection of wet, normal, and dry years was not based on records of flow below Keyhole because these flows are severely affected by the operation of the reservoir.

Question: Was National Weather Service data used to synthesize streamflow data?

Response: No. Concurrent monthly streamflows from nearby hydrologically similar gaged streams were used in lieu of precipitation data to estimate missing monthly streamflows.

## **Stock Reservoir Identification Discussion – Chace Tavelli, SEO**

In response to a BAG request to quantify evaporation from stock reservoirs, Chace reported that the planning team is evaluating the best method to determine the number of stock reservoirs in the sub-basins. It appears that only a portion of the reservoirs are permitted making it difficult to determine the actual number of stock reservoirs. He reported on a recent analysis he made of the SEO water right database that revealed approximately 1,900 permitted stock reservoirs in the Belle Fourche drainage. He explained that the latest priority water right in the database was June 30, 2000, and that the surface water database is updated on a frequency of approximately every 3-4 months.

To estimate the percentage of reservoirs that are permitted versus those not permitted, HKM Engineering plotted the permitted reservoirs on sample digital quads from various areas in the drainage. Chace then distributed HKM's prints of the digital quads and noted there appeared to be a large percentage of stock reservoirs that were not permitted.

Question: Does the permitting process identify the source of the water?

SEO Response: Yes, the source of the water is noted on the permit, however, if the pond receives CBM water it is not always noted on the permit for older permits. The newer permits, dating back to approximately February 2001, started specifying CBM discharge water as a source of supply.

Question: Does the permitting process consider the downstream water quality impacts of the discharge?

DEQ Response: The SEO permitting process does not consider downstream water quality impacts. The NPDES permitting process of DEQ addresses downstream water quality impacts of discharge. Water quality parameters of discharge water are measured at the point of discharge.

Question: How will the number of nonpermitted reservoirs be determined?

SEO Response: Several methods are being evaluated to come up with this estimate.

Chace emphasized that it was very important to come up with an acceptable estimate of the number of stock reservoirs in the Northeast river basins. The BAG has been very adamant that an acceptable number be developed. Both the State and HKM are trying to determine a reasonable process to quantify the number of stock reservoirs and insure that the estimate is a number the BAG is comfortable with, and is representative of the situation.

### **Total Maximum Daily Loads (TMDL) – Jim Eisenhauer, DEQ**

Jim gave an overview of Total Maximum Daily Load (TMDL) regulations. His presentation described water body classification and the determination of designated uses for the four classes of water. He explained how if water bodies were not supporting their designated uses, they must be listed on the states' 303(d) list as impaired. Each listed water body must be given a priority (low, medium, or high). Jim then described the process that must be implemented to return the stream to its designated use and remove it from the impaired list. Wyoming is one of the few states that allow a local group to develop a watershed plan in lieu of establishing a TMDL. In this case, DEQ will reprioritize the development of a TMDL to "low" for this water body, but it is not removed from the 303(d) list of impaired waters. DEQ then steps back and allows the local stakeholders to address the water quality issues associated with the water body. If progress is not shown, or interest wanes, DEQ will then re-prioritize to original status and begin development of the TMDL.

The meeting was adjourned at approximately 9:00 pm.