

**Northeastern Wyoming Basin Advisory Group
Meeting Record
Town Hall – Moorcroft
March 1, 2001**

Welcome

The facilitators opened the meeting at approximately 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 April 12th in Sundance, and June 14th in Lusk. The BAG then scheduled the August meeting for the 9th in Wright. The Wyoming Water Development Commission will attempt to arrange a tour of a coal mine on August 9th during the day, with members of both the Powder/Tongue and Northeast BAGs being invited to participate in the tour.

Planning Team Issues

Jon Wade gave a status report on the other basin planning efforts. The Powder/Tongue BAG met last night. They are also working on issues identification but are moving a little slower than the Northeast BAG.

The final reports for the Green River and Bear River Basins are nearly complete. The reports should be on the website in a couple of months. Distribution will be primarily by compact disc, but printed copies will also be available. The first post-plan meetings of these BAGs will be held March 19th in Cokeville for the Bear River Basin and March 20th in Pinedale for the Green River Basin. Such meetings will be held every four months after the formal planning process has been completed to discuss water resources topics and implementation of the plan.

The 2001 Wyoming State Legislature authorized river basin planning efforts in the Wind/Bighorn and Snake/Salt River Basins. Basin advisory group formation meetings will be held in Thermopolis May 14th and Jackson May 15th for these two new basins.

Consultant Update – HKM Engineering

Joe Lord presented a status report of the activities of the consulting team. The work under Task 2, which is developing a profile of water use in the basins, is nearly complete and the team's focus is moving to Task 3, which is determining available surface water and groundwater availability. Task 4 activities have begun with the collection of economic and demographic data. Chris Ewers of HKM Engineering expressed appreciation to Jim Kruse, Skip Waters, and other individuals who provided information on irrigation systems in the basins.

Question: Will recreational uses be identified?

Response: Yes, recreational as well as environmental uses will be identified under Task 2.

Question: How will the total number of stockwater reservoirs be determined based on the number of permitted reservoirs?

Response: Individuals familiar with the situation in each of the basins will be asked to make an estimate of the number of non-permitted stock reservoirs. This estimate can then be added to the number of permitted reservoirs to estimate the total number of reservoirs.

Question: Can't the stock reservoirs be determined from aerial maps?

Response: Yes, stock reservoirs can be identified from aerial maps. However, this is a very labor intensive and expensive effort. There are many stock reservoirs in locations where aerial photos were not obtained because there is no irrigation in those areas.

Water Rights Attribution – HKM Engineering

Joe Lord explained the water rights attribution process. Specifically covered were: an explanation of water right attribution; why there is a need to define water right attributes; how the water rights are identified and attributed; and what is produced at the completion of the process.

Question: How is the source of supply of a water right confirmed?

Response: From the paper records in the State Engineer's Office.

Question: What maps are used for base maps?

Response: USGS digital quad maps, which meet National Mapping Standards.

Question: Will the water studies take the time of the year into consideration?

Response: Yes, published streamflow records are compiled and analyzed for their period of record. Most of these records include daily values for the entire year.

Coalbed Methane Coordination Coalition – Mickey Steward, CBM Coordinator

Mickey Steward began her presentation by introducing herself as the Coordinator for the Coalbed Methane Coordination Coalition, a group of counties, conservation districts and the State dedicated to improving the understanding and information with respect to coalbed methane. The purpose of the CBMCC is to assure the orderly and efficient development of the coalbed methane industry while, at the same time, maintaining good environmental protection and the protection of private and public rights.

Mickey indicated the purpose of her presentation is to familiarize BAG members with the landscape effects of coalbed methane development. She emphasized that coalbed methane issues are extremely specific to an area. It is not possible to take a "broad brush" approach to address these issues. The complexity and diversity of interests, and the wide-ranging differences in the environments makes it impossible for a solution to a problem to be applicable in all cases.

The issue of mixing surface water and groundwater introduces other issues including:

- Threat of flooding

- Opportunities for additional irrigation and adverse impacts on existing irrigation
- Livestock water opportunities and problems
- Changes to alluvium aquifers affecting vegetation
- Temporary development of wetlands
- Cumulative negative impacts that can't be assigned to a single CBM producer for mitigation
- Water wells drying up as a result of CBM development
- Orphan water wells that seep gas.

Water issues associated with CBM development can be addressed in one of two ways: 1) through a collaborative cooperative effort between the parties; or, 2) legislation and litigation. Both of these methods will probably be used to address the problems, but the method preferred by the CBMCC is collaboration and cooperation. Problems need to be addressed on a small watershed approach and this approach fits very nicely into the larger watershed studies completed in the river basin planning conducted by the WWDC. Using aerial photography, Mickey continued her discussion of issues related to the CBM play. Issues identified include:

- Land settlement
- Gas seepage
- Storage development
- Interaction of water discharges with soils

Question: How can Mickey be contacted?

Response: Phone number in Buffalo is 684-7614, email address is cbmcc@vcn.com.

Question: When several producing companies contribute to a problem downstream, can't a fund be established by all involved producers to fix the problem?

Response: This is an issue that needs to be addressed. The idea of establishing a fund has been discussed relative to orphaned wells.

Comment: Producers are open to discussing issues and working toward resolutions. There is a methane operators group that discusses common problems and brings peer pressure on "rogue" operators.

Mickey explained one of her current tasks is to make information easily and quickly available so potential impacts can be identified and evaluated. This information will allow an operator to decide how far downstream their analyses need to go to address the issues.

Question: Is there a concerted effort to do water quality sampling in the basins?

Response: Yes, there is a large sampling effort in the works on a "large basin" level, i.e. for the Powder River. Also there is periodic sampling at specific discharge points as required for discharging. There is no sampling being conducted to investigate the interaction of soil and water. There are specific investigations just beginning that will include water quality sampling. Producers obtain an NPDES (National Pollutant Discharge Elimination System) permit from DEQ to discharge CBM produced water. A requirement of this permit is to collect and report water quality samples for a defined number of constituents, along with production volume data,

twice a year. They were originally required to test for seven different constituents and now they are required to test thirty-one. Sodium and all of the cations have been included on the list from the start, and the data from these constituents can be used to calculate the Sodium Absorption Ratio (SAR). Water is sampled and tested as it comes out of the well, but there are no water quality tests taken to determine what happens as the water flows over various types of soils.

Question: Is a plan being formulated for the short term to resolve and mitigate problems?

Response: Whether a problem exists or not has to be clearly identified. The magnitude of the problem has to be clearly identified. The source of the problem has to be clearly identified. If these tools don't resolve the problem then the only option is litigation.

Question: Can't there be a fee established as part of the permitting process to go into a remediation fund?

Response: There are 135 operating producers. The good producers who solve problems should not be penalized because there are bad producers who don't.

Question: Why can't the CBM water be put back into the ground?

Response: This is a very complicated issue with several reasons preventing reinjection. The reinjection option is being considered and is used in areas where it makes economic sense.

Issues Identification Process

The facilitators explained that at the last meeting BAG members were prioritizing sub-issues under each sub-basin for the each of the main categories. The process continued with the issue of **Quality** as presented in the following table:

Issue: Quality Sub-issues:	Niobrara River	Little Missouri	Cheyenne River	Belle Fourche
Maintaining water quality for present and future uses	1	1	1	1
Proven testing method – water quality of each stream/river should be determined by a statistically proven method	1	3	2	2
Underground irrigation wells	2	5	5	5
Streambank erosion	4	4	3	4
Non-point source	2	2	3	2
Coal bed methane water impact down river – quantity and quality	4	X	3	1
Timber, mining, oil & gas	4	2	3	2
Sewer discharge	3	X	4	3

The facilitators explained that at the next meeting, BAG members will prioritize sub-issues under the main issue of **Regulatory**. The meeting was adjourned at approximately 8:55 pm.