

**Northeastern Wyoming Basin Advisory Group  
Meeting Record  
Town Hall – Wright, WY  
August 9, 2001**

**Welcome**

The facilitator opened the meeting at approximately 6:15 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 facilitator sent a sign-in sheet around the room.

The facilitator stated the next two BAG meetings, as selected by the BAG members, would be held October 11<sup>th</sup> in Hulett at 6:00 pm and December 13<sup>th</sup> in Moorcroft at 1:00 pm. The BAG then scheduled the next meeting for January 17, 2002, in Upton at 1:00 pm.

**Consultant Update – HKM Engineering**

Wade Irion reported the work under Task 2, Basin Water Use Profile, has nearly been completed and the industrial use technical memorandum has been written and submitted to the Planning Team. The Consulting Team is focusing on Task 3, Availability of Surface Water and Ground Water, and this task will be the topic of the presentation tonight. Task 4, Demand Projections, and Task 5, Future Water Use Opportunities, are currently underway and reports will be presented at the October BAG meeting.

Responding to discussion at the June BAG meeting regarding the quantification of evaporation from stock reservoirs, Wade reported HKM submitted a proposal to the Planning Team to develop an estimate of the evaporation from stock reservoirs. He indicated the proposal was accepted and HKM has begun the work. He explained the process begins by identifying stock reservoirs from the digital USGS quad maps obtained for the project. The surface area of the reservoirs is then measured from the maps and the evaporation loss from that surface area is computed.

Since the maps show the area of the reservoirs when they are full, Wade indicated that using this area to compute the evaporative loss will overstate the estimate of evaporation from the ponds since the ponds are not full throughout the year. For the analysis HKM suggested using the assumption that the reservoirs are full on June 1 and dry on August 1. BAG members discussed this assumption noting it is generous for some parts of the basins and lean for others, and agreed it is reasonable for this estimate.

Chace Tavelli of the State Engineer's Office presented a handout and plots' showing how the number of stock reservoirs permitted by the State Engineer's Office has increased over the past several years.

## **Two Elk Power Project Presentation – Harry Underwood, Town of Wright**

Harry distributed a fact sheet for the project and indicated construction of the 280 MW unit is scheduled to begin in the fall of 2001. He noted this project will be dry cooled to minimize water requirements, and will use waste coal from Black Thunder Mine. He discussed the socio-economic impacts and mitigation plan to be implemented for the project. He discussed two other proposed projects currently seeking permits: Two Elk Unit II and Middle Bear.

## **Northeast Wyoming Economic Development – Dave Spencer, Wyoming Business Council**

Dave explained that he is the Regional Director of the Wyoming Business Council. He described the history, composition, and five strategic areas of the Council. He noted the function of the regional office is to assist others in promoting economic development.

He distributed and discussed a document titled *Population Projections for Campbell County, July 2001*. This document was prepared to project the need for housing in Campbell County. Dave also discussed how energy development was growing the economy of the area.

## **Endangered Species Act – Mike Long, US Fish & Wildlife Service**

Mike began the presentation, titled *ESA For Non-Majors*, by defining the terms and stating the purpose of the Endangered Species Act. He then described the process followed to list a species as endangered, threatened, or candidate, and identified the factors considered in the listing process and the key elements of the listing decision. He described the determination of critical habitat for listed species.

Mike explained how threatened or endangered species can be “taken” through the various provisions of the ESA specifically through consultations under Section 7 (federal nexus) and Section 10 (private property) of the ESA. He explained how recovery plans are prepared to result in the delisting of species, and how Candidate Conservation Agreements with Assurances can prevent the listing of a species.

Mike identified listed species that currently exist in the Northeast Wyoming Basins, or could possibly inhabit the area in the future. The list includes: Black-footed Ferret; Bald Eagle; Ute Ladies’ – tresses orchid; Mountain Plover; Black-tailed Prairie Dog; Sage Grouse, Sturgeon Chub.

Question: When does the comment period for the Prairie Dog management plan end?

Response: The Wyoming Game & Fish Department will receive comments until October 2001. Exact information on the proposed plan can be found on the Wyoming Game & Fish website.

Question: How many Black-tailed Prairie Dogs do there have to be before they no longer need protection?

Response: The ESA does not provide protection based on the number in existence, but on population density and other analytical factors.

## **Coalbed Methane Activities Update – Bj Kristiansen**

Bj explained that he works with Mickey Steward as the Assistant Coordinator of the Coalbed Methane Coordination Coalition. He indicated various options for the use of CBM produced water are being considered, including reinjection, different types of irrigation, and wellhead treatment. He provided the following statistics: 20,000 wells have been permitted; 7,000 wells are in full production; 2,000 to 3,000 wells are beginning to fail; 1,500 wells are done and have been abandoned; 4,000 wells are permitted and drilled but not in production for any of a number of reasons; and 4,000 wells are permitted and waiting for drill rigs.

The capacity of the pipeline that delivers gas to market, most of which is along the front range of Colorado, is a limitation as all pipelines are full. Bj identified planned and proposed projects that will significantly increase pipeline delivery capacity. He indicated Lance Cook, Wyoming State Geologist, has extended the projected timeframe for the CBM play from 20 years to 30 years, and that emerging new technologies could extend this timeframe even further.

## **Hydrologic Modeling – HKM Engineering**

Wade Irion and Jennifer Reusser conducted a GIS presentation of the irrigated lands data theme that identified the irrigated lands polygons and the associated attributes. Wade described the attributes of the irrigated lands polygons which include: the name of the ditch serving the polygon, the source of supply, the other polygons included in the same service area, the area of the polygon, the type of crops being irrigated, the water rights associated with the land, the efficiency of the irrigation system, and the pattern of return flow from the polygon. Wade explained how the information in this GIS data theme is used in the hydrologic models developed for the basins.

A presentation was then given of the hydrologic model prepared for the Cheyenne River basin, which is one of the models prepared for the plan. The presentation described how the model was developed and calibrated, and how it is used. Wade explained that under Task 3 the models would be used to establish the baseline conditions of the basins and define where the shortages and surpluses currently exist under dry, wet, and normal years. This information will be used in Task 5 to assess future water use opportunities.

Question: Does the model account for groundwater for municipalities?

Response: No, the model only accounts for surface water.

Question: Gillette's water source is groundwater and the sanitary sewer discharges into Donkey Creek. How is this accounted for in the model?

Response: Gillette's sewage effluent is treated as an import to the surface water system.

The meeting was adjourned at approximately 9:00 pm.