

Northeast Wyoming Basin Advisory Group
Meeting Record
Lusk, Wyoming
July 17, 2003

Welcome

Barry Lawrence, Water Development Commission, welcomed the group and the meeting was called to order at 1:03 p.m. All attendees introduced themselves, followed by a review of the overall meeting agenda by Facilitator Sherri Gregory. A sign-in sheet was passed around to record attendance. The next meeting is scheduled for November 20 in Newcastle.

Water Development Commission Report

Barry Lawrence updated the BAG on the status of the plans for the other basins. Open houses for the Platte River Basin were held June 2 – 4 in Saratoga, Douglas and Pine Bluffs. Barry discussed the status of all basin studies, and agendas for future meetings.

DOE Rocky Mountain Oilfield Testing Center (RMOTC)

Lorri Jackson, RMOTC, stated the center was originally established by the US Department of Energy as a testing alternative for the petroleum industry in 1993. It currently serves as a customer technology testing and demonstration facility for the energy industry and educational institutions. The facility is located in the Naval Petroleum Reserve No. 3, the Teapot Dome Oil Field, near Casper. It offers 666 producing wells, whose depths range from 250-6000 feet. There is an open prairie environment with abundant wildlife and flora.

Some of the water management projects include formation micro imaging; fiber optics to monitor temperature changes in a well bore hole; process flow diagram for a bio-treatment facility, or a wetland; and the use of saline CBM water in raising Nile tilapia and growing tomatoes in a hydroponic greenhouse.

Lori indicated current or future CBM projects include PSI pumps, rangeland reclamation, reverse osmosis, and dust suppression. Discussion followed.

High Plains Aquifer

Sue Lowry, Interstate Streams Administrator, State Engineer's Office, indicated the High Plains Aquifer covers 174,000 square miles in 8 states (Wyoming, Colorado, South Dakota, Nebraska, Kansas, Texas, Oklahoma and New Mexico) with daily irrigation withdrawals as high as 40,000 acre-feet to serve 2.2 million people. During the time frame of 1980 to 1994, the groundwater levels of the aquifer gained in southeastern Nebraska, but experienced large declines in western Kansas and Texas. These changes led to the formation of the Ogallala Aquifer Institute in 2002, with the Board of Directors consisting of 1 member from each state. The Board has met twice, with an upcoming meeting on September

4-5 in Topeka, Kansas. A mission statement has been developed, and the work plan includes the development of aquifer specific environmental education materials, i.e. Project Learning Tree, and to hold informational meetings. Sue indicated there has been Congressional authorization to model and map the aquifer. More information on the Ogallala Aquifer Institute can be found at <http://www.hiplain.org>

Darren Parkin, State Engineer's Office, indicated that only 2% of the High Plains Aquifer system is in Wyoming, which includes Laramie, Goshen, Platte, Converse and Niobrara Counties. The annual depletion is 300,000 acre-feet per year. There are 3 groundwater control areas in the 5 county area. A control area is established under the following conditions: the groundwater use is approaching or exceeding the recharge rate, groundwater levels are declining excessively, conflicts are occurring between water users, and the State Engineer's Office determines that regulation is required to protect the public interest. The Prairie Center Control Area was established in 1977; the Laramie County Groundwater Control Area was established in 1981; and the Platte County Groundwater Control Area was established in 1982. Observation well monitoring in the control areas are done jointly between the US Geological Survey and the State Engineer's Office.

Aquifer Depletion in the Powder River Basin

BJ Kristensen, Coalbed Methane Coordination Coalition, indicated that the study was the product of a local rancher's call in September 2002. An 890 ft. depth well, which had been flowing, had dropped to a water level 27 feet below ground level. The local permitted groundwater wells were researched as well as the Wasatch and Fort Union aquifers in the basin. As of March 1999, there were 20,413 permitted water wells in the basin. Those wells have an annual permitted production of 2,382,349 acre-feet contained within 7.9M acres, and the average age of each well is 29 years. Unknowns affecting the aquifers include coalbed methane wells, unpermitted groundwater wells, aquifer characteristics, drought, and rural subdivision growth in the recharge area. It was noted that a loss of artesian flow is probably occurring statewide. A lengthy discussion followed.

The meeting adjourned at 3:32 p.m.