

Wind/Bighorn Basin Advisory Group
Meeting Record
Thermopolis, Wyoming
July 6, 2004

Welcome

Facilitator Sherri Gregory welcomed the group and the meeting was called to order at 3:00 p.m. All attendees introduced themselves, followed by a review of the overall meeting agenda. A sign-in sheet was passed around to record attendance. The next meeting is scheduled for September 28 in Powell.

Water Development Commission Report

Barry Lawrence updated the BAG on the status of the plans for the other basins. The BAGs for the Powder/Tongue and Northeast Wyoming Basins will be meeting July 7 in Sheridan, and July 8 in Moorcroft. The BAGs for the Bear, Green and Snake-Salt Basins will be meeting July 19 in Evanston, July 20 in Savery, and July 21 in Jackson. Barry discussed the status of all basin studies, and agendas for future meetings. Handouts from the prior meeting were distributed.

Water Development Program Update. John Jackson summarized the active basin projects. He announced that a public hearing on the Buffalo Bill Dam marketing plan would be held July 16 in Cody. Also, a joint meeting of the Select Water Committee and Water Development Commission is scheduled for August 26 in Thermopolis.

Yellowstone River Compact Discussions

Pat Tyrrell, State Engineer, indicated that the compact is between the states of Wyoming and Montana. The unused and unappropriated waters, as of January 1, 1950, were allocated as follows: Clarks Fork River – Wyoming 60%, Montana 40%; Wind/Bighorn River – Wyoming 80%, Montana 20%, Tongue River, excluding the Little Bighorn – Wyoming 40%, Montana 60%; and Powder River – Wyoming 42%, Montana 58%. The compact recognized all beneficial uses in place January 1, 1950 and all supplemental supplies to lands that are pre-1950 are exempt. In a May 18, 2004 letter to Wyoming, Montana has raised issues related to satisfying their pre-compact rights and Wyoming water storage amounts. Meetings have been held between the two states on June 10 and June 30. A Technical Committee has been formed to investigate actual diversions and water use in the two states. Discussion followed.

Bighorn Canyon Water Quality Monitoring Plan

Sue O'Ney, National Park Service (NPS), stated that with the passage of the Organic Act in 1916, the NPS has the responsibility to provide for public enjoyment of natural and cultural resources while conserving those resources for future generations. Following the construction of Yellowtail Dam on the Bighorn

River in 1966, the Bighorn Canyon National Recreation Area (BICA) was created. BICA is involved in the Inventory and Monitoring Program, which is designed to develop and implement long-term monitoring of park resources. The Greater Yellowstone Inventory and Monitoring Network is comprised of BICA, Yellowstone National Park and Grand Teton National Park. Issues in the Bighorn Canyon include sediment accumulation, swimming beaches' water quality, loss of riparian habitat due to trailing and grazing, non-point pollution, and invasion of non-indigenous plants in wetland and riparian areas. Historically, water quality has been sampled at many BICA locations, but there is insufficient data to determine any long-term trends. Monitoring of waters listed as 303(d) streams, which include the Shoshoe River for fecal coliform and the Bighorn River for nutrient loading, has been recommended. A statistically valid sampling scheme is being designed for implementation in 2005 and which will monitor vital signs, those selected key elements that indicate an ecosystem's health. These include streamflow, water chemistry, water temperature, algae, insects, reservoir elevation, and springs and seeps. Discussion followed.

More information can be found at: <http://nature.nps.gov/im/units/gryn>

Snow Telemetry and 2004 Season Recap

Dave Taylor indicated that the Natural Resources Conservation Service (NRCS) installs, operates, and maintains an extensive system to collect snowpack and related climatic data in the western United States called SNOTEL. Locally, the cooperative snow survey program monitors sites in Wyoming and the western half of South Dakota. Cooperators include various municipalities, the State Engineer's Office and the US Bureau of Reclamation. The first snow survey was conducted in 1906 by Dr. Church in the Lake Tahoe area. The program is in the 10 western states and Alaska, with Wyoming having 83 SNOTEL sites with automated equipment and 65 manually read sites. South Dakota has 2 sites each of the automated and manually read courses.

SNOTEL sites are designed to operate unattended and without maintenance for a year. Manually read courses are measured with a snow sampler, which takes a core and is weighed to determine the snow water equivalent. The standard SNOTEL site has a shelter for electronic equipment, a snow pillow, a storage precipitation gauge, a snow depth sensor, a temperature sensor, plus other sensors, including humidity, wind speed and direction, soil moisture, and solar radiation. The data is transmitted to two base stations in Boise, ID and Ogden, UT via meteor burst technology, and is then transmitted via telephone to Portland, OR. Most Wyoming sites report every three hours.

The snow survey data is available through the Water Resources Data System at <http://www.wrds.uwyo.edu/wrds/nrcs/nrcs.html>. Another site with snowpack information is the National Water and Climate Center at <http://www.wcc.nrcs.usda.gov/>, with specific Wyoming SNOTEL sites at <http://www.wcc.nrcs.usda.gov/snotel/Wyoming.wyoming.html>

The "Basin Outlook Report", is prepared annually, which covers 13 basins within the state and collects data January through June at 63 forecast points. Dave indicated that most of the state is in a severe to extreme drought. The entire state, except the Platte River Basin, experienced 50-55% average runoff for 2004. The Platte River Basin experienced lower runoff. Discussion followed.

Midvale Conservation Program

Brad Anderson, Anderson Consulting Engineers, indicated that the purpose of the Level II feasibility study was the development of a 20-year master plan of improvements for the Midvale Irrigation District. The goals of the plan would be 1) a reduction in operation and maintenance costs, 2) an increased water supply through conservation, 3) an inventory of existing structures and identification of rehabilitation needs, and 4) an improved management/delivery of water. Brad summarized the various objectives and approaches to be utilized in the development of the 20-year plan. Proposed funding sources and a project status report was also presented, along with a phased rehabilitation plan. Discussion followed.

Kirby Creek Watershed Plan

Jason Linford, Sunrise Engineering, presented an update and overview of the Kirby Creek Watershed Plan. He provided an historical review of the drainage and described how conditions have changed over time based on written accounts and anecdotal testimony. Also discussed was the watershed description including land use, management activities, geology, soils, upland and riparian conditions, hydrology, channel structure and morphology, irrigation activities, and water quality. He talked about opportunities that exist within the watershed and also about issues and concerns and potential solutions. Currently the Kirby Creek Watershed Plan is being finalized and completion of the final plan is in progress.

Public Comment Period

There were no public comments at this time.

The meeting was adjourned at 5:53 p.m.