

**Snake/Salt Basin Advisory Group
Meeting Record
Alpine, Wyoming
December 10, 2001**

Welcome

Facilitators Cathy Lujan and Sherri Gregory-Schreiner opened the meeting at 6:00 p.m. at the Alpine Civic Center. Each person in attendance was given the chance to introduce himself or herself. Following the introductions, the agenda for the meeting was reviewed. There were approximately 35 people in attendance.

The following schedule was then agreed upon for the next three Snake/Salt BAG meetings:

Wednesday, February 13, 2002, 6 p.m. – Thayne (*changed from Afton*)
Wednesday, April 10, 2002, 6 p.m. – Jackson
Wednesday, June 12, 2002, 6 p.m. – Alta

Basin Planning Update

Barry Lawrence gave a brief review of the items discussed at the last BAG meeting, and distributed handouts from that meeting. Some of these handouts will not be put on the website as they are considered draft products. Barry also gave a report on the progress of other basin planning efforts in the State, and discussed the other BAG meetings that were to take place during the week. Anyone interested was invited to attend any of the BAG meetings across the state.

Consultant Update - Sunrise Engineering, Inc.

Ryan Erickson gave the consultant update. He presented a brief description of the basin planning process, and how the work was progressing. A profile of the current water use in the basin is being created, and a significant part of this is agricultural use. Bob King, also of Sunrise Engineering, then described the use of Geographic Information Systems for the basin plan. GIS software is being used to link the tabular data, such as water right information, with the spatial data, such as irrigated lands mapping (polygons). Wells and points of diversion have been added to the mapping, as well as township, range, and section data. USGS quadrangle maps have been used as part of the GIS as well.

Wyoming's Current Drought Status – Jan Curtis, Wyoming State Climatologist

Jan Curtis, State Climatologist for Wyoming, presented information regarding the current drought situation in the state, such as the Palmer Drought Index, Standardized Precipitation Index, and a review of the precipitation over the last 90 days. Mr. Curtis stated that Wyoming is currently in a drought, and that it will take precipitation significantly above average to return to normal conditions. The Snake and Salt Basins

are currently in a better situation regarding drought than other areas of the state. It was noted that there are many methods used to make long-term forecasts, however it is very difficult to be accurate that far in the future. Mr. Curtis then presented data related to El Nino/La Nina and sunspot activity, and indicated that this data has been statistically significant in the past when making long-term forecasts. Many websites were also reviewed that contained extensive climate and weather information.

Mr. Curtis stated that he is currently part of the Governor's Drought Task Force. In an attempt to quantify drought, Jan indicated that he was developing a drought trigger mechanism that will provide ample lead-time to prepare for drought (i.e., declare emergency, implement water priority access, etc.). The triggers are based on 1 Oct historical reservoir level departures, actual winter snowpack by 1 April, and soil moisture. Using winter and summer precipitation forecasts (6 months in advance) and April's forecast (one month in advance) for prairie grassland growth potential, a template is expected to assist State of Wyoming departments on being more proactive in reacting to a developing drought. If the drought is more than one year long, additional factors are added in order to determine just what amount of precipitation is required to end the drought.

Jan indicated that the Water Resources Data System (WRDS) website at: <http://www.wrds.uwyo.edu> has important real-time and forecast links pertaining to water/snow, soil moisture, reservoir levels, fire potential, and precipitation. The one-stop link is: http://www.wrds.uwyo.edu/wrds/wsc/wy_drought_2001/wy_drought.html

USGS Data Collection – Myron Brooks, U.S. Geological Survey

Myron Brooks, USGS District Chief, presented information regarding data collection by the USGS. He indicated that the USGS is not a regulatory agency, and does not create or enforce regulations. Rather, they provide water resource data in an impartial and timely manner. Data collected by USGS include stream gaging, which measures the stage of a river or stream. This is generally done using a stilling well or pressure transducer. Stream discharge can also be measured by determining the cross-sectional area and the velocity. Mr. Brooks stated that rating curves are created which correlate the stage to the discharge, allowing the approximation of the discharge from the stage reading. These curves are calibrated periodically to ensure accuracy. In addition to gaging operations, water quality samples are also collected by the USGS in certain locations. These samples are then analyzed at the USGS lab in Lakewood, Colorado.

Relative to the Snake-Salt, Mr. Brooks stated that there are many gage locations throughout the basin, however, many of them have not been in service for many years and may have limited data. The median number of years of data for gages in the basin is 5.9. It is preferred that gages have a median of at least 10 years for statistical purposes. It was noted that data collected by the USGS can be useful in a variety of applications, such as planning, design, and research.

Sample data from the Snake River below Jackson Lake was then presented. Mr. Brooks stated that the stage data throughout the year indicated an unnatural change over time for a stream influenced by snowmelt. This is due to the fact that the data is recorded just below the dam, and the stage is determined by releases from the dam, not snowmelt. Water quality samples were compared from above Jackson Lake to below the dam, and the influence of the lake was shown.

Myron presented the USGS website, <http://water.usgs.gov/nwis> which contains a large quantity of data on streams and rivers. Real-time data for many gaging stations can also be found on this website.

Fisheries Management in the Snake/Salt – Tracy Stephens, Wyoming Game & Fish

Tracy Stephens presented information regarding the management of fish populations in the streams and rivers of the Snake and Salt River Basins. The various species of fish present in the basin were outlined, as well as their classifications of being game or non-game, native or introduced. It was stated that a main objective of the Game & Fish was to maintain the wild native trout populations in the basins. Various field activities conducted by the Game & Fish were presented, such as electro-fishing, creel surveys, productivity studies, fish stocking, redd counts, and trophy lake trout monitoring.

Threats to the fishery were outlined by Ms. Stephens, which included rainbow trout, whirling disease, and habitat degradation. Rainbow trout are considered a threat since they can cross-breed with cutthroat trout, which can jeopardize the pure strain of the native fish. It was noted that whirling disease has devastated fish populations in other states, but has not had a significant impact in the basin at this time. Ms. Stephens closed by noting that sampling activities indicate that the current status of the fisheries in the Snake River stands at 600 pounds/mile and in the Salt River, 470 pounds/mile.

After a brief question and answer period, the meeting was adjourned at 8:35 p.m.