Snake/Salt Basin Advisory Group
Meeting Record
Jackson, Wyoming
April 10, 2002

Welcome

Facilitators Cathy Lujan and Sherri Gregory-Schreiner opened the meeting at 6:00 p.m. at the Wort Hotel in Jackson. 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 40 people in attendance.

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

Wednesday, June 12, 2002, 6 p.m. – Alta
Wednesday, August 14, 2002, 6 p.m. – Moran (Jackson Lake Lodge)
Wednesday, October 9, 2002, 6 p.m. – Alpine

Planning Team Issues

Barry Lawrence, River Basin Planner with the Wyoming Water Development Commission thanked the Teton Conservation District for arranging the facilities for the meeting. Handouts from the last BAG meeting were distributed, and it was mentioned that many of the documents were available on the State Water Plan website as well.

Barry also presented an update on the planning processes for the other basins in the State, including the Green, Bear, Northeast, and Powder/Tongue River Basins. He invited BAG members to attend any of the other BAG meetings that were of interest.

Consultant Update / Municipal Water Use - Sunrise Engineering, Inc.

Ryan Erickson of Sunrise Engineering presented information regarding municipal water use in the basin. It was determined that the EPA definition of a public community water system would be used to decide which water systems to include in the municipal use portion of the study. Other residential water use would be included in the domestic use portion. He further indicated that groundwater sources were utilized for all municipal water users in the basin. A handout was distributed that contained a summary of municipal water use in the basin, including data on the various systems being studied, such as population and water usage. A graph was also presented that compared the water usage of the municipal type systems.

Bob King, Sunrise Engineering, then presented GIS mapping of the basin, with a focus on municipal systems. The GIS allows for viewing the locations of the various systems on a map, along with other physical features such as rivers, forest boundaries, roads, and so forth. Also, clicking on a system on the map will retrieve data on that particular system. Various data items such as population, average day use, and peak day use were

included in the database. Sources of the data were discussed, which included WWDC system surveys, EPA surveys, past studies, and discussions with system operators. It was discussed that additional data such as water rates, water sources, treatment, water rights, and so forth were also being collected on each of the municipal use systems, and will be summarized in the basin plan.

Following the GIS presentation, maps of the municipal users in the Star Valley and Jackson areas were shown, and input was sought regarding these and other potential municipal users.

Instream Flow Law – John Barnes, Wyoming State Engineer's Office

John Barnes with the State Engineer's Office discussed the instream flow program in Wyoming. He indicated that after much debate, the Instream Flow Law was passed by the Legislature in 1986. Prior to this, it was generally accepted that water must be diverted to be beneficially used. Also, there were questions regarding the ability to abandon such rights since water was not being diverted. The law which passed in 1986 indicated that water could be beneficially used without diversion, however the abandonment issue is still debated.

The instream flow process involves three agencies. The first is the Game and Fish Department, which selects the stream segment on which to file for a right. This is done using knowledge of the fisheries. Following Game & Fish Department input, the Water Development Commission conducts a hydrologic assessment to determine if sufficient flows exist to provide the requested instream flow amount. Streamgaging may be part of this study. The application is submitted with Water Development Commission findings. The State Engineer's Office then provides for public comment and a public hearing. In the past, public involvement has ranged from very little to significant. Following the public input period, the State Engineer's Office decides whether or not to approve, approve with modifications, or reject the application.

John also compared instream flow rights to other water rights in terms of condemnation and acquisition. In general, only municipalities can condemn an instream flow right. However, within one mile of the State border, the water for an instream flow right is still open to appropriation. This allows for additional utilization of water prior to the flow leaving the State. Existing water rights cannot be condemned for instream flow, however they can be gifted to the State for instream use. Also, these rights cannot be issued if they will limit Wyoming's use of water with respect to interstate compacts.

John indicated that there are currently 83 instream flow applications filed with the State, with 16 having been permitted. During the last week, the first instream flow filing to utilize stored water was submitted, with the proposed section being located below Fremont Lake. Also, he indicated that there are currently four applications pending in the Snake/Salt Basin, two of which are on Fish Creek below Wilson, with the others on the Salt and Greys Rivers.

Upper Snake River Restoration – Randy Williams, Teton Conservation District

Randy Williams presented information regarding the Upper Snake River Restoration Project, which is located in the Jackson Valley. In the 1950's, approximately 22 miles of dikes and levees were constructed along the Snake River in an effort to reduce flooding. These structures reduced the flood plain from approximately 25,000 acres to 2,500 acres. As a result of this reduced area available to the river during flood events, river velocities increased to the point that the river bed was unstable. This greatly reduced fish and wildlife habitat along the river, as well as vegetation. In an effort to restore some of what was lost, Teton County and the Teton Conservation District have sponsored this project, along with the U.S. Corps of Engineers. According to the Corps, this will be a $54 million dollar project spanning 14 years.

A feasibility study was conducted from 1997 to 2000, which included 13 sites of ½ to 2 miles in length. Randy indicated that these areas will utilize techniques such as eco-fences and ponds to help protect habitat during high water and will collect sediment during low water times. It was noted that this has been a learning experience, as the river channel has shifted away from some of the improvements following construction. The goal is to have 50% habitat restoration in 50 years by constructing spur dikes, barbs, brush fences, ponds, channel excavations, headgate improvements, and vegetative restoration.

Water Quality Monitoring – Brian Remlinger, Teton Conservation District

Brian Remlinger presented information regarding water quality monitoring that has been conducted by the Teton Conservation District in the Jackson Hole area. This project has included two streams, Fish Creek and Flat Creek. Sampling of Fish Creek began in 1996, and a Sampling Analysis Plan was put in place in 1999. A reference site was chosen nearby in Grand Teton National Park. Potential impacts to Fish Creek include confined animal feeding operations, grazing, golf courses, ski areas, Snake River levees, and urban waste management.

Regarding Flat Creek, Brian stated that a reference site was chosen nearby on the National Forest. Physical, chemical, and biological parameters are being monitored to determine impacts on the stream as it flows through Jackson. Urban stormwater runoff is the main concern, which can wash pollutants into the stream.

Preliminary evaluations have indicated that Fish Creek has biological impacts due to total and fecal coliform bacteria as well as E. Coli. Also, sediment loading appears to be affecting the stream as well. Urban stormwater runoff appears to deposit various pollutants in Flat Creek, such as trash, bacteria from wastes, sediment, and salts. It was noted that all runoff in Jackson flows into Flat Creek, and that development along the creek has caused a loss of fish habitat.

Brian concluded by stating that future plans include continued stream sampling and analysis of the collected data. Efforts will be made to create a stormwater infrastructure plan for Jackson to help alleviate the current impacts. Also, efforts toward education of the public and involvement of landowners along the streams will be made.

Alpine Wetlands Project – Duane Klamm, NRCS (retired)

Duane Klamm presented information regarding wetland projects created by the Natural Resources Conservation Service (NRCS) during the 1990's. He first presented various projects near Jackson, which were constructed as part of the mitigation plan for Jackson Lake due to loss of wetlands. Slides of these created wetlands were shown, which are located in the Gros Ventre, Buffalo Fork, and South Park areas.

Duane then pointed out that at the upper end of the Palisades Reservoir, the Wyoming Game and Fish had created a wildlife viewing area adjacent to Highway 89. However, much of the wildlife and waterfowl would leave when the reservoir level would drop and leave the area dry. The NRCS, with funding help from the U.S. Bureau of Reclamation, designed a wetland area that would keep water in the area to provide wildlife habitat year round.

Duane explained that a system of seven dikes was constructed, up to seven feet in height, with clay cores and gravel shells. The design called for the lower dikes to be under water when the reservoir was full, and 35 islands were placed in the created pond areas. The water for the wetland area is diverted from the Salt River. By creating a flow through system, problems with mosquitoes and moss were avoided. Nearly all of the water that flows through the system returns to Palisades Reservoir. Overall, the wetland area was designed to be 50% vegetation and 50% open water. Duane stated that the water levels in each pond could be adjusted using boards in the overflow structure. The end result has approximately 115 acres of surface water in the total area of 300 acres. Construction costs at the time were $260,000. Currently, the facility is operated by the Wyoming Game & Fish Department, who is also the holder of the associated water rights. Duane concluded his remarks by handing out a detailed map of the area.

Adjournment

The meeting was adjourned at 8:45 p.m.