

**Powder / Tongue Basin Advisory Group
Meeting Record
CAM-PLEX – Gillette, WY
October 11, 2000**

Welcome

The facilitators opened the meeting at approximately 6:00 pm. Participants introduced themselves by stating their name, affiliation, and place of residence. The facilitators sent a sign-in sheet around the room and reviewed the agenda to set the expectations for the meeting.

Planning Team Issues

Jon Wade gave a status report of the basin plans underway. Both the Bear and Green River basins are nearing completion. At the September and October Basin Advisory Group (BAG) meetings for these two basins, the consultants presented draft products and results for review. The Northeast BAG is proceeding on the same schedule as the Powder/Tongue BAG.

The facilitators stated the next two BAG meetings, as selected by the BAG members, will be held December 13 in Kaycee, and February 7, 2001, in Ucross. The BAG then scheduled the next meeting for April 11 in Buffalo.

Consultant Update – HKM Engineering

Joe Lord of Lord Consulting distributed and explained a graphic project schedule that the consulting team is following. He then presented a status report by explaining the consulting team is working on data collection to define the basin water use profile. Primary activities include mapping irrigated lands, compiling ditch diversion records, and preparing ditch operating memoranda.

Question: What are the project meetings noted in the schedule? Response: These are monthly meetings between the planning team and the consulting teams of all ongoing river basin planning studies to discuss the status of the studies, problems encountered, solutions, and significant findings. These meetings are held in Cheyenne at the Water Development Commission.

Question: Will the results be presented at the BAG meeting in October of 2001. Response: It is likely that the draft results presentation will begin at the October meeting and be continued in a meeting held in December.

Question: Will we have presentations from resource agencies concerning their water related managements plans? Response: Yes. Agency representatives will be invited to make presentations during upcoming BAG meetings.

USGS Water Data in the Powder and Tongue River Basins

Myron Brooks of the United States Geological Survey (USGS) gave a presentation on the activities, projects, and programs of the USGS specifically related to the Powder and Tongue River basins. The presentation addressed four basic questions: 1) why does the USGS do this work; 2) how is the data collected; 3) where is the data being collected; and, 4) what uses exist for the data.

The presentation addressed: 1) streamflow measurement and gaging procedures; 2) water quality sampling methods; 3) quality assurance and credible data; 4) locations of historic and current stations and length of record; and, 5) uses of data collected by USGS. Sample streamflow and water quality data were presented and described.

Myron indicated data is available on the USGS website: <http://wy.water.usgs.gov>

Questions: Are log records for drill sites available on the USGS website? Response: No, this data will probably not be available electronically soon. Specific questions about logs can be addressed by calling the USGS office to determine the availability of the log records.

Question: How extensive is the collection of groundwater data and tying this data into the hydrologic system? Response: USGS has a fairly scarce network of groundwater data. There are some reasonably long-term records of water levels in observation wells. The network has maybe one or two wells in the Sheridan area. USGS has projects that collect groundwater data – water quality, levels, and information from well logs. This data goes into the database but is not yet available on the website. The USGS office can be contacted to determine what data is available. Followup question: Are statistical analysis and other tools available for groundwater similar to those packages available for surface water that could be used to define basin groundwater storage maps, interbasin flows between different units or within boundaries, and things of that nature? Response: Yes, these tools are available and the USGS office can be contacted to determine what tools are available.

Question: What is the funding source for USGS stations, does it look secure, and will USGS convert to SI (metric) units? Response: Streamflow data is published in English units but can be converted to SI units. Water quality data is published in SI units. Relative to funding for the nationwide streamgaging network, only an estimated 15% to 20% of the gaging network operated by USGS is funded solely by USGS. The remainder of the gages are funded by others through the USGS cooperative program. USGS has been asking Congress to recognize this funding arrangement is a problem and they are asking Congress for \$80M to fund a national-interest streamgaging network. Followup Question: Is there a way additional monitoring can be done as part of the river basin planning process. Response: No, river basin planning does not require additional monitoring as the planning process uses historical data.

Question: What is the quality assurance/quality control process for water quantity data, how does USGS account for the condition of the gage? Response: Gage levels are surveyed and checked regularly to USGS standards. Meters are inspected and tested and documented in a log maintained by the hydrographer-commissioner. Periodic reviews are conducted by USGS

headquarters personnel who inspect the gages, review the records, and watch the technicians do their work. Gages are maintained to the maximum extent of budget availability. Followup Question: Are there “red flags” in the record that tell the users of the data that there may be a problem with the data? Response: Notes included with the published records will indicate problems.

Comment: The map of gage locations shown in the presentation only includes gages operated by USGS or in cooperation with USGS. There are many more gages in the basin.

Comment: The Ucross Foundation is looking at possibly developing its methane. As part of that process they intend to build real-time monitoring and want to cooperate with USGS so they don't reinvent the wheel. Response: USGS is always interested in discussing cooperative programs.

Question: Will the presentation be included in the meeting record? Response: Yes, a copy of the presentation will be distributed with the meeting record and will also be included on the water plan website.

Question: Do all streamgages shown on the map of gage locations shown in the presentation have water quality data? Response: Not all gages shown on the map have water quality data.

Comment: Coal hydrology reports prepared around 1978 are a good reference for data availability. USGS has a limited number of these reports remaining.

Question: How are changes in the watershed, such as the construction of a dam, going to be accounted for in developing the hydrologic budgets? Response: Estimates of the virgin flow at a gage will be developed by removing effects of man, then adjusting the virgin flow to account for the current level of development.

Issues Identification Process

The facilitators explained that at the last meeting the BAG identified subissues under general headings. BAG members continued the subissue identification process for the four remaining major issues: **Related Land Issues, Water Quantity, Conservation, and Funding**. BAG members identified subissues and wrote them on pieces of colored paper. These subissues were then posted under the appropriate main issue. The subissues identified during the meeting are presented in the accompanying table. Subissues identified at the August 16 BAG meeting are also included in this same table.

After the BAG completed identifying subissues, the facilitator explained the next step in the issues identification process is to prioritize each of the subissues under the main issues. She explained the Northeast BAG prioritized each subissue by basin and asked how the BAG wanted to proceed. The BAG members agreed to prioritize the subissues by basin. Question: Is it necessary to prioritize every subissue for every basin? Response: Yes, it is important for the consultant to hear the discussion to learn what issues are important to which basin. The members decided to group the subissues under each major issue prior to prioritizing the subissues.

Beginning with the **Future Use Projections** issue, there was extensive discussion of the use of projections made by private, local, state and federal entities in developing the projections for the basins. It was agreed the projections made by these entities will not be used to dictate the future for the basins, but they are only tools that will be used by the consultant to make projections associated with low, moderate, and high growth scenarios. The projections will be based on input from the BAG. BAG members agreed to remove local, state, and federal as subissues under the **Future Use Projections** issue.

The facilitator explained the issues identification process will continue at the next meeting. The subissues under the **Future Use Projections** issue will be grouped where possible and the process will proceed to the other issues.

The meeting was adjourned at approximately 9:00 pm.

Powder and Tongue River Basins
List of Issues and Subissues
Basin Advisory Group Meeting: August 16, 2000

Issue: Water Quality

1. stream classification (DEQ & G&F)
2. baseline data collection – groundwater and surface water
3. TMDL
4. NPDES permitting
5. erosion sediment deposition
6. CBM discharge
7. aquifer commingling
8. agricultural feeding operations and confined agricultural feeding operations (AFO/CAFO)
9. land use impacts
10. aquifer classification
11. stormwater discharge
12. best management practices (BMPs)
13. irrigation return flows
14. water temperature
15. transbasin diversion
16. herbicide/pesticide use and runoff (golf course)
17. well classification
18. irrigation practices
19. sodium adsorption ratio (SAR)
20. leach fields impact/subsurface discharges.

Issue: Water Rights

1. preservation of existing rights prior to compacts
2. compact issues
3. transbasin and tributary diversions
4. change of use/change of point of diversion issues
5. federal takeover threats
6. instream flows – fisheries, esthetics, recreation
7. minimum pools in reservoirs for recreation/fish
8. state water law
9. prior appropriation doctrine
10. permitting process
11. permitted uses
12. ditch right vs. water right
13. cumulative impacts from CBM water discharge
14. water reserves for future uses
15. low flows impacting fish and aquatic environment
16. unused water rights
17. abandoned water rights.

Powder and Tongue River Basins
List of Issues and Subissues
Basin Advisory Group Meeting: August 16, 2000

Issue: Future Use Projections

1. population projections – local, federal, state (This subissue was later removed by the BAG at their meeting on October 11, 2000)
2. recreation/tourism
3. aesthetic/visual use
4. changing land use
5. energy use
6. technology
7. industry
8. economic
9. agriculture
10. pressure on infrastructure.

Issue: Regulatory

1. wetlands
2. instream flow requirements
3. source water protection
4. wellhead protection
5. emotional paranoia
6. EPA trying to take over State's primacy
7. issues for new dam permitting
8. Clean Water Act
9. Endangered Species Act
10. NEPA (National Environmental Policy Act)
11. permitted vs. non-permitted flow diversion
12. EPA, DEQ, state, county, federal, other
13. state and federal laws effecting use and development
14. safety of dams
15. Corps, Game & Fish, US Fish & Wildlife, BIA – tribes.

Powder and Tongue River Basins
List of Issues and Subissues
Basin Advisory Group Meeting: August 16, 2000

Issue: Public Education

1. walls of water
2. value & economic cost of water
3. conservation
4. help for ditch organizations
5. water law
6. understanding Clean Water Action Plan
7. meeting
8. college
9. schools
10. COE (Corps of Engineers) permitting
11. economic benefits of CBM
12. radio/TV
13. coal seam depressurization
14. regulatory agency statute development
15. MMMM (forums)
16. public regulatory contribution
17. fact vs. fiction
18. NEPA process public input.

Issue: Water Development

1. rehab of existing conveyance systems (old ditches), highest and best use priorities
2. municipal
3. agriculture
4. pipeline distribution stock water systems
5. extreme difficulty in getting dams permitted
6. improved irrigation efficiency
7. minimum flows & flushing flows below dams (present ones and future development)
8. fish loss to diversion ditches
9. plan, plan, plan
10. privatized public use systems
11. pre-compact projects
12. new technologies and new uses
13. funding
14. aquifer storage and retrieval (ASR) programs.

Powder and Tongue River Basins
List of Issues and Subissues
Basin Advisory Group Meeting: October 11, 2000

Issue: Related Land Issues

1. noxious weeds
2. streambank erosion
3. best management practices in riparian areas
4. wellhead protection
5. watershed management for water yield
6. land ownership patterns
7. restoration/reclamation/rehabilitation
8. recreational overgrazing.

Issue: Water Quantity

1. recharge area protection
2. baseline data collection, groundwater and surface water
3. water quantity and occurrence
4. interbasin transfers and flows
5. recharge areas defined recharges
6. reinjection programs
7. reinjection to aquifers
8. planning for water quantity decreases following peak development (resting the resource)
9. reservoir projects
10. conveyance losses
11. contract reservoir rights, how they fit in, what is their future, how dependable
12. fish need water too
13. precipitation
14. drip irrigation
15. conservation pools and flows
16. promoting opportunity for innovative, non-invasive water management
17. preservation of watersheds

Powder and Tongue River Basins
List of Issues and Subissues
Basin Advisory Group Meeting: October 11, 2000

Issue: Conservation

1. groundwater
2. surface water
3. CBM water management
4. improved management practices
5. re-use
6. wild and scenic designations
7. improved irrigation practices
8. non-subsidized use (pay for what you use)
9. permaculture practices
10. protecting scenic watersheds, private cooperative projects as opposed to government
11. managing (conserving) consumptive use
12. rehabilitation projects (irrigation)
13. preservation of watersheds.

Issue: Funding

1. private land rights
2. funding for water development opportunities
3. private funding
4. industry contribution
5. rehab of existing conveyance systems (old ditches)
6. WWDC
7. partnerships with Feds
8. watershed groups (defined users)
9. more funding for watershed protection (State)
10. legislature
11. more federal funding
12. single species groups (Ducks Unlimited)
13. water futures
14. private systems providing water for payment
15. interstate water sales and leasing
16. The Nature Conservancy (TNC)
17. cost/benefit analyses
18. Trout Unlimited
19. wildlife and conservation organizations