

Meeting Notes
Yellowstone River Compact Commission
Technical Advisory Committee
April 12, 2016
Hampton Inn - Billings

1. Introductions: see sign-in sheet.
2. Additions/Revisions to Agenda: Commissioner Tyrrell added an agenda item to honor Sue Lowry, Wyoming Commissioner, who is retiring.
3. Hydrologic Update: Wayne Berkas and Kirk Miller (USGS) discussed October 1, 2015 through April 12, 2016 streamflow data. Most streams were running at low to low-average flows. Recent storms had increased some flows especially at headwater sites in the Bighorn Mountains. Shell Creek had fallen to all-time record lows in November. The Tongue River, Little Bighorn River and Powder River were well below average flows for April. Based on current trends the low flow years seem to be peaking earlier in the runoff season; the USGS is developing a proposal with the Dakota Science Center to further evaluate possible trends.
4. 2016 Runoff Forecasts:
 - a. Lee Hackleman, NRCS, WY: Wind River, Shoshone, Yellowstone and east side of the Big Horn Basins were about average snowpack. The west Big Horn, Powder and Tongue Basins were between 60 and 80% of average. Inflow to the Tongue River Reservoir was predicted at 65% of average.
 - b. Luke Zukiewicz, NRCS, MT: Similar information with higher mean temperatures overall in Montana. Upper Yellowstone saw above and near average precipitation, lower Yellowstone below average. Stream forecast was near average for the Upper Yellowstone and 50-70% for the Tongue.
 - c. Tom Frieders, NOAA, MT: Temperature trends over the winter were warmer than average. Accumulated precipitation for the water year was normal until late January after which it began to flatline but achieved recovery soon afterwards with several storms at the end of March. The three month forecast was for warmer than average temperatures and average precipitation. The El Niño pattern was expected to be on the decrease moving into the rest of the year, with above normal temperatures in the spring and flow patterns for precipitation keeping to the Southern U.S. A precipitation event was predicted for April 14th.
5. Montana – potential hydrologic triggers for a call: Tim Davis DNRC, MT, suggested it was too early to adopt a specific trigger and a group led by Technical Advisory Committee members Beth Ross (WY) and Chuck Dalby (MT) was assigned to work with NRCS and NOAA to improve confidence in forecasting state line flows of the Tongue River.
6. Reservoir Operations and Storage: Roughly normal reservoir contents for April. Loren Smith reported that flow at Big Spring at Thermopolis has increased to highest that it has been since 2005. Art Hill reported that flows below Tongue River Reservoir were cut down to 82 cfs which may be the lowest ever for this time of year.
7. *Montana v Wyoming* update: Chris Brown reported that the U.S. Supreme Court accepted the 2nd Interim Special Master's report on March 21st. There are some remaining issues for which procedures and a schedule are being created. Comments from both states would be due to the Special Master by April 25th.

8. Wyoming Water Planning Activities update: Wyoming provided a handout listing 10-10 reservoirs and current status. A river basin plan for the Tongue and Powder basins is in the data compilation phase. A groundwater survey detailing quantity, recharge and yield should be done by 2017. New planning will include evaluating watershed fire risk particularly for municipal water supply systems.
9. Wyoming Weather Modification Program: Data since 2008 on multiple mountain ranges shows a 5 – 15% increase in precipitation from “seedable” storms. A design study is underway to seed the Big Horn Mountains. Cost per AF from seeding was estimated at \$27.00 to \$214.00. Discussion of potential downwind effects of seeding suggested that such effects were absent or small. Typical seeding period is November 15 – April 15.
10. Technical and Administrative issues related to potential exchanges of Northern Cheyenne (NCT) storage within Tongue River Reservoir (TRR): Idea was floated to allow water users in Wyoming to contract with the NCT for storage water from the TRR reducing the available water prior to the water reaching the reservoir. Tim Davis was concerned about accounting and whether the volume contracted would include losses from the river between the use site and the state line. Kevin Smith was concerned about timing issues particularly if contracts started before or after spring runoff. It was questioned if this issue was within the role of the commission. Wyoming stated that it is the SEO’s role to advise the state’s water users on what their options may be and that Wyoming allows for exchanges with criteria for accounting and traceability. Wyoming agreed to create some model examples, or “straw dogs,” to allow for discussion at a future technical meeting.
11. Wyoming Center for Environmental Hydrology and Geophysics (WyCEHG) Snow Research update: no results to report at present.
12. Coalbed Natural Gas:
 - a. Amy Steinmetz, DEQ, MT: There are only 41 active wells in Montana and no discharge of water.
 - b. Beth Ross, SEO, WY: Wyoming is seeing reduced reservoir permits. They are dealing with abandoned wells of bankrupt companies.
13. State Adjudication and Permits:
 - a. Kim Overcast, DNRC, MT
 - i. 42B (Tongue River, above and including Hanging Woman Creek) Small groundwater wells – 4 issued for 16 gpm up to 4 AF total; No provisional permits; 4 stock water dams on Coal Creek – total 50.86 AF.
 - ii. 42C (Tongue River below Hanging Woman Creek) Reported 35, however there are actually 15 issued for an average flow of 12 gpm and max volume of 48 AF; No provisional permits; 6 stock water dams on UTs of Pumpkin Creek, Sixmile Creek, Coal Bank Creek & Fiftyfour Creek – total 23.52 AF.
 - iii. Montana Statewide Adjudication – Map of ongoing adjudication was handed out.
 - b. Wyoming
 - i. Loren Smith, SEO Division 3 Superintendent
 1. At the time of this meeting, Division 3 had 67 proof inspections in its files compared to 62 last year at this time. Of those, 21 were instream flow permits which require a significant amount of

research and data collection to adjudicate. Four instream flow permits were complete awaiting fees payment before submission.

2. A total of 14 proofs had been submitted as complete since January 1, 2015.

ii. Dave Schroeder, SEO Division 2 Superintendent

1. During the 2015 calendar year, Division 2 had 97 surface water adjudications of which 63 were in the Yellowstone River Basin. Of those, 29 were reservoirs, eight were stock reservoirs, 24 were ditches and two were enlargements.
2. Division 2 also had 315 stock reservoir endorsements of which 85 were in the Yellowstone River Basin.

14. Water Users Meetings: Each State agreed to keep the other informed of meetings. None were specifically mentioned except a TRWUA meeting which was to follow this meeting.

15. YRCC Website and Updates: Removed from agenda.

16. Next TAC Meeting: April 12, 2017, Wyoming hosts. [The meeting date was later modified to April 6th.]

Attachments

- ✓ TAC sign-in sheet
- ✓ Current/Pending WWDC Reservoir Projects
- ✓ WY Water Development Office – Project in Yellowstone Basin