**MINUTES**

**Taylor Local Users Group**

**April 19, 2023**

**TLUG Representatives Present:**

Roark Kiklevich (Wade Fishing)

Ernie Cockrell (Taylor Placer via Zoom)

Ryan Birdsey (Flatwater Recreation via Zoom)

Don Sabrowski (Chair)

Mark Schumacher (Boating Interests)

**TLUG Representatives Absent:**

Andy Spann (Irrigation Interests)

**Others in person:**

Sonja Chavez – UGRWCD

Bill Gallenbeck – Taylor Dam Outlet Operations

Alana Nichols - UGRWCD

Sue Uerling – UGRWCD

Dirk Schumacher – Three Rivers Resort

**By Zoom:**

John Bocchino – Riffle and Rise LLC

Dan Brauch - CPW

Erik Knight – BOR

Dave Gochis – UCAR

Ed Werner – BOR

Steve Anders – USGS

Doug Forshagen – Crystal Creek Homeowners

Jeff Deems - ASO

Dustin Brown - Scenic River Tours

John Evon - Harmels

Elliott Manning – Eleven Angling

Patrick Blackdale – Three Rivers Angling

1. **Introduction & Approval of Minutes**

Following introductions Don noted that the District is still accepting TLUG applications for Property Owner Interests which are due this Friday, April 21, 2023.

1. **CBRFC Water Supply Update and USBR Model Forecast:** Erik Knight presented the mid- April runoff CBRFC forecast. The April- July forecast for inflows into Taylor Park reservoir has dropped to 113,000 AF which is 120% of average. The inflows have decreased by 7,000 acre-feet from the April 1st forecast. The East River inflow forecast is the same as April 1st forecast.

Based on the CBRFC forecast, Taylor Reservoir is still projected to fill up to 104,329 acre-feet which is about 1 foot away from the spillway crest. The forecast is still projecting to have an October 31st content at 75,000 acre-feet and even with a decreased inflow it is projected to fall in the Wet Year category. This will call for a 10-day peak flow release at 445 cfs. The main difference from the previous operations plan was reducing the 500 cfs releases in June down to a period of 13 days at 450cfs. This will result in a number of days after that to be at 400 cfs going into July. Reservoir releases were increased to 200 cfs as of last weekend. It is still projected to be at 400 cfs through July, 350 cfs through August and 300 cfs through September. Flows out of Taylor Reservoir are currently at 200 cfs and expected to increase up to 250 cfs on May 1st. These forecasted inflows are in the upper 25% of higher flows in the historical record.

The snow water equivalent (SWE) is 122% of normal in Taylor (as measured at the Park Cone SNOTEL site). Snowmelt has occurred as well as some additional accumulation. The snow accumulation in April is 75% of what is normally seen in April. In the Upper Gunnison Basin, we received 180% of average snow accumulation in March. For this season it is currently sitting at 117% of average snow accumulation and more snow is forecasted for next week.

Regarding flows, the Taylor River at the Almont gage is projected to see flows greater than 1200 cfs which could be seen around the middle of June time period. The Gunnison River at the twin bridges has flow restrictions at 2000 cfs -2800 cfs. Based on these projections we could see flows at or above these flow restriction levels for most of June.

Erik Knight will send out graphs of these flow projections next week to anyone who wants them.

Mark Schumacher asked if storage inflow drops is there a chance for an average year?

Erik Knight said April looks good for keeping snowpack in place with average temperatures. So far there is no hot dry wind this season that would cause a high volume of snow melt. The snowpack is sitting at 101% of average and there is a possible 10% occurrence. The East River is holding up well. Eric surmised that it is possible we could drop to an average year, but that at this time he is not projecting that based on the current weather outlook.

Mark Schumacher asked that if later it is noted that inflow levels are closer to an average year, what could be done about lowering releases.

Erik Knight replied that if inflows do change, the 10-day required releases of 445 cfs could be reduced down to a 5-day release.

1. **ASO Flight Update:** Jeff Deems presented the ASO April flight update for the East and Taylor River. The graphs show the distribution of SWE with elevation, and then elevation with aspect.

The Taylor River ASO flight update occurred on April 1st, which showed complete snow cover and a deeper snow accumulation in the northwest. There also appeared to be some precipitation funneling in Cottonwood Pass and a wind scour along the eastern divide. The total estimated SWE volume was at 207 thousand acre-feet (TAF). This SWE volume is for the inflow to Taylor Park Reservoir. In comparison, the basin’s SWE volume in 2019 was identical to this year. However, the SNOTEL SWE is now at 120% in contrast to 2019 which was sitting at 140% during this time. The differences in the SWE pattern from 2023 vs. 2019 were avalanche cycles, wind redistribution and elevations.

The East River ASO flight update occurred on April 1st, which exhibited complete snow cover and about a quarter to a half quarter of SWE down in the valley floor. The deepest snow accumulation is in Ruby Range and Paradise Divide. There is a strong west to east gradient within the East River and continues into the Taylor River. The total estimated SWE volume was at 368 thousand acre-feet (TAF). In comparison to the 2019 SNOTEL SWE, the data is nearly identical with a similar basin SWE volume of only 5% difference, although there is a significant difference in the SWE pattern from 2023 vs. 2019 based on snowpack distribution being high at lower elevations. The different patterns are shown in avalanche cycles, wind redistribution and elevations.

Regarding the recent dust storms, an ASO flight took place on April 12th over the Fryingpan River that exhibited a large dust on snow event with a visible albedo below 60% in large parts of the area. Jeff Deems believed this will shorten snowmelt runoff season by a month based on prior research. He has not assessed the recent dust storm in the area but was able to view the visible satellite loops which appeared to only darken the snow surface.

The next ASO flight for the region is scheduled during late May but could change based on weather forecast factors. He will be in contact with other forecasters to determine the exact date of the next ASO flight.

Sonja noted that Beverly is working with the Colorado Airborne Snow Measurement (CASM) group. They received funding from the Colorado Water Conservation Board and other sources to help fund flights the past couple of years. The ASO flight costs have increased and funding is currently running low, so next year the District is looking at funding this program through a grant application to the BOR Snow Water Supply Measurement grant. This grant offers anywhere from a minimum of $300,000 to a maximum of $999,000. The group has discussed that the best strategy to obtain funding for Colorado River is to have each basin apply for funding which increases chances of multiple awards. The UGRWCD will put forth an application to continue ASO flights in the Upper Gunnison due to benefits provided to forecasting modeling.

1. **UCAR WRF Hydro Model Forecast:**

Davis Gochis provided an update from the University Corporation for Atmospheric Research (UCAR). He provided information on the Taylor Reservoir inflow in which UCAR’s data is coming in with a projection of 113.2 thousand acre-feet (kaf) of inflow. This inflow is an 11%-12% drop from the last forecast provided. The snowpack also dropped by a similar percentage. The latest forecast at 113.2 kaf taken with the peak SWE on April 1st gives a runoff ratio of 0.57. This ratio is pretty low for high mountain watersheds since it is typically in the 70’s and 80’s.

When looking at the East River by Almont the inflow is 304 thousand acre-feet which is a drop of 6%. The calculated runoff ratio is estimated at 0.71 which is more normal for high mountain watersheds.

There will be more context in the summer forecast report which will try to include peak flow rates from the model.

1. **Flow Recommendation Discussion Summary:**

Ernie Cockrell asked Erik Knight if he has enough information to not be in a situation where we need to release more from the Taylor reservoir to keep the reservoir from spilling over the dam during peak runoff on the East River?

Erik Knight responded that we are in a good position with Taylor River and have room to come up in releases since we have already come down from the 500 cfs release from the last projected forecast. The East River will run high for a long time and will likely remain high for well over a month. If we did need to make adjustments, it would be based on flows through the East River and would likely be done in early May with the forecast. Erik believes by the time we receive solid indicators of what runoff will be in the East River, the Taylor will already be running at high flows.

Ernie Cockrell said he does not have any recommendations on changing flows at this time.

Ryan Birdsey also didn’t have any flow recommendations. He reported that he has seen the snowpack decrease by about two feet in the last two weeks. The cold nights are helping hold everything, but they are seeing some mud flows beneath the ice around Taylor River inlet, Willow Creek, Texas Creek and some of the springs across the reservoir.

Mark Schumacher had no recommendations on changing flows at this time.

Roark Kiklevich also said he had no recommendations on flows at this time. He did suggest to the group that they read the book “Beneath Blue Mesa” by David Primus, which Roark said is very educational and discusses the history of ranches and fishing lodges before the dam was built.

Sonja mentioned that Texas and Willow Creek gauges usually start reporting in the first two weeks of April but with current snowpack, this will likely be pushed back to late April or early May. She will speak to Steve Anders and report back to the group.

Don Sabrowski asked Ryan Birdsey if the Willow Creek gauge could be accessed now as the road has melted out. He thought so, but said that access to the Texas Creek gauge could still be out about two weeks.

1. **Citizens Comments:**

John Bocchino asked Dan Brauch of the CPW for an update on their kokanee release.

Dan said they plan to release the kokanee salmon from the Roaring Judy Hatchery on April 24th. He will be reaching out to all the irrigators between the hatchery and Blue Mesa to coordinate opening gates to try to get as many kokanee as possible to Blue Mesa. He also mentioned they went to Taylor River and collected samples of rainbow trout and brown trout. The water temperatures were measured around 37 degrees. It is believed trout will spawn between mid-April to mid-May in Crystal reservoir and we can expect the same for Taylor reservoir.

**Next meeting set for May 5th at 12:30 p.m.** (hybrid meeting). There was also discussion about scheduling a second meeting on May 26, 2023 at noon if there are significant changes with the mid-May forecast. Sonja and Erik will discuss the need as soon as the forecast is released and will keep the TLUG members and stakeholders posted.

**Meeting Adjourned at 12:59 p.m.**