

**MINUTES**  
**Taylor Local Users Group**  
**June 7<sup>th</sup>, 2024**

**TLUG Attendees:**

TLUG Chair: Don Sabrowski

TLUG Representatives Present:

Mark Schumacher (Boating Interests)  
Roark Kiklevich (Wade Fishing Interests)  
Ernie Cockrell (Taylor Placer via Zoom)  
David Fisher (Property Owners Interests)  
Ryan Birdsey (Flatwater Recreation Interests)  
Andy Spann (Irrigation Interests via Zoom)

Others in Person:

Dustin Brown (Scenic River Tours)  
Dan Brauch (Colorado Parks and Wildlife)  
Beverly Richards (UGRWCD)  
Sonja Chavez (UGRWCD)  
Alana Nichols (UGRWCD)  
Sue Uerling (UGRWCD)

By Zoom:

Erik Knight (Bureau of Reclamation)  
David Gochis (Airborn Snow Observatory)  
Jeff Deems (Airborn Snow Observatory)  
Matt Feier (Gunnison County Electric Association)  
Doug Forshagen (Crystal Creek Homeowner's Association)  
Raquel Flinker (Colorado River Water Conservation District)  
Steve Cook, Crystal Creek Homeowners Association  
Bryan Moore (US Geological Survey)  
Ed Warner (Bureau of Reclamation)  
Jesse Kruthaupt (Trout Unlimited)

## **I. Introductions & Approval of Minutes**

Chairman Don Sabrowski called the meeting to order at 10:00 a.m. The minutes from the May 8th, 2024, TLUG meeting were presented for review. No changes were requested. Mark Schumacher made a motion and Ernie Cockrell seconded approval of the May 8th, 2024, Meeting Minutes. The motion carried.

Matt Feier of Gunnison County Electric Association provided an update on the Taylor River Hydroelectric facility. Over the winter, the steel building housing the turbine and generator was constructed. In early May, the turbine and generator, manufactured in Washington state, were delivered and are now in the building. The turbine has been mounted in the concrete. Next week, the generator is scheduled to be connected to the turbine. In about two weeks, there are plans to drill a hole through the existing valve house to connect the penstock between the new building with the turbine generator and the existing valve house. The connection points, including the T-valve, to the easternmost penstock have been installed, pressure tested, and are operational. Commissioning of the project is anticipated for the second half of July. Extensive electrical work will commence in the second half of June, and if all goes according to plan, the facility should be fully operational and generating electricity by early August.

## **II. CBRFC Water Supply Update and USBR Model Forecast**

Erik Knight of the Bureau of Reclamation reported that the forecasted inflow volume for April through July 2024 is now 106,000 acre-feet, which is 113 percent of average. Erik noted that the June forecast, received a few days ago, indicates a significant increase in projected runoff for June, now at 60,000 acre-feet compared to the May 15<sup>th</sup> estimate of 48,000 acre-feet. This adjustment results in a higher runoff volume in June, which would represent 57 percent of the total April-July runoff. If this volume materializes, it will set a new record for June inflows. Historically, no single year has seen such a large percentage of runoff volume concentrated in June.

Erik expressed the possibility that the overall runoff might exceed the current forecast of 106,000 acre-feet, given the significant June projections. Conversely, July's projected inflow volume is now considerably lower, at 15,000 acre-feet, which would be 25 percent of June's projected runoff. This would also set a record for the lowest relative July inflow if it occurs. Erik noted the historical relationship between June and July runoff volumes, with portions of June and all of July typically being on the descending limb of the hydrograph. The anticipated severe drop-off from June to July suggests that July's actual inflow might be higher than currently projected.

The forecasted 2024 Taylor Park inflow is still being monitored for the 1,500 cfs peak predicted on the graph. Recent adjustments by the Colorado River Basin Forecast Center (CBRFC) have reduced this peak expectation. He noted that yesterday's inflows came in 200 cfs below the original projections, and today's inflows are tracking approximately 100 cfs less than expected, based on upstream gauge data. Despite these reductions, Erik still expects the total inflow volume for June to surpass the 60,000-acre-foot projection.

Erik then presented the Taylor Park Operations graph. If the inflows reach the projected levels, an increase to a 600 cfs release from Taylor Park is planned for early next week. This morning, the release was increased to 550 cfs to manage the runoff. Should the forecasts hold, the 600 cfs release will be necessary next week to prevent a spill, as the reservoir is projected to reach a maximum fill of 104,652 acre-feet, just 0.8 feet below the spillway crest at 9329.22 feet. Erik mentioned the likelihood of needing the 600 cfs release while monitoring the inflow projections over the weekend.

Even with the substantial release, the reservoir is expected to remain well above the 70,000 acre-foot end of water year target (October). Erik highlighted a table summarizing the graph's biweekly data, noting no changes outside the planned increase in June to manage runoff. The 600 cfs release will continue for most of the second half of June, gradually decreasing to 400 cfs, then 350 cfs in August, and 300 cfs in September. He confirmed that there are no significant changes for periods beyond the runoff management phase, consistent with the information provided at the last meeting.

Don asked the board if there were any questions for Erik.

Bryan Moore (USGS) mentioned the Texas Creek and Willow Creek gauges and that Katie had recently visited and noted that there would be an adjustment to the rating curve because of the recent high flows which they had not had to date. They changed the rating for Texas Creek to show about 100 cfs coming in and are trying to get everything updated as quickly as possible.

Andy Spann asked Erik about the historical inflow in July, noting the percentage change from 60,000 back to 15,000, and wanted to know the typical inflow for July.

Erik Knight responded that the average volume for July would be somewhere between 19,000 and 20,000 acre-feet, depending on weather conditions.

Ernie asked Erik if there was any reason to wait until next week to go up to 600 cfs, given that if the inflows were lower than expected, they could cut back earlier in June. He suggested that increasing the flow now would give an additional three days at another 150 cfs.

Erik responded that increasing the flow now was an option. He noted that they were expecting high flows coming down the East River this weekend, with the forecast showing a drop-off early next week. He mentioned that the forecasts had been quite variable, going in one direction or another, and suggested that watching the situation daily could help make a more informed decision without rushing or waiting too long. Bill Gallenbeck (UVWUA Dam Tender) will be available over the weekend if needed, but Erik said they could wait until next week to decide on increasing to 600 cfs without jeopardizing anything. That was the current plan unless the group decided to vote to increase the flow to 600 cfs over the weekend.

Dustin Brown (Scenic Rivers) asked Erik if he had any projections on the timing and numbers for when the East River was expected to peak.

Erik Knight responded that the forecast center indicated the peak would occur either Saturday or Sunday, with a projection of around 2,600 cfs.

### **III. ASO Flight and Data Report- Dave Gochis, Airborne Snow Observatory (ASO)**

Dave Gochis of ASO Inc., presented the ASO/WRF Hydro assimilation, noting that Jeff Deems from the ASO team was present to assist with the presentation as well. The latest WRF Hydro April through July forecast projected Taylor Reservoir inflow of 127,000 acre-feet, which was a decrease of about 5,000 acre-feet from the previous forecast made a little over a week ago, but still significantly higher than the official forecasts Erik reported on.

The tributary flows were detailed as follows: Taylor River at Taylor Park at 72,000 acre-feet, Texas Creek at 24,000 acre-feet, and Willow Creek at 23,000 acre-feet. Dave showed a historical graph of flow accumulation, indicating the current year's status. As of three days ago, the total inflow was about 40,000 acre-feet, which had increased substantially over the last three days. He emphasized that the inflow was in the steepest part of the flow accumulation curve, with the WRF Hydro model predicting this trend to continue for about another week to a week and a half before beginning to flatten out. The projected total inflow by the end of July was 127,000 acre-feet. Dave reiterated Erik's point that June's inflows were somewhat unprecedented.

Jeff Deems presented a comparative analysis of this year's snowpack data to last year's data, highlighting the significant differences. The SNOTEL time series plot for the Taylor River, which includes the Park Cone and Upper Taylor sites, was shown with this year's data in blue and last year's data in green. Deems marked the 2024 ASO flight survey dates, April 4th and May 20th, indicating that the first flight coincided with the peak accumulation date and the second flight occurred during the ablation phase.

Jeff compared the two flights from 2024. The graph on the left showed the distribution of water equivalent volume by elevation, revealing a substantial loss in the lower and middle elevation snowpack but a gain at elevations above approximately 11,500 to 11,600 feet. This pattern was also reflected in the radial plots showing volume and average snow water equivalent (SWE) depth, with strong ablation at lower elevations and significant accumulations at middle and upper elevations, especially on north-facing terrain. This view provided by the full basin flights complemented the SNOTEL time series data, showing a total basin drop in SWE from 155 TAF in April to 111 TAF in May, despite significant accumulation in the interim.

A comparative analysis of April's data between 2024 and 2023 showed substantially lower snowpack this year. However, the situation changed dramatically by May. The difference map for May showed a positive difference, indicating substantial snow

accumulation in early May, bringing this year's SWE trace in line with last year's. Despite the SNOTEL data suggesting similar snow amounts in the basin, the airborne survey revealed a higher snowpack this year. This discrepancy likely explains the higher volume projections from the WRF Hydro model.

Dave Gochis continued the presentation, discussing the high elevation snowpack, particularly where SNOTEL stations were unable to capture data effectively, such as at the Park Cone site. He noted that the Upper Taylor site had recently completed its measurements. Despite this, there remained a significant amount of snow at higher elevations, not just in the Taylor Park Basin but throughout the region.

On May 20th, they had integrated 111,000 acre-feet of snow into the model. The latest ASO survey had added substantial snowpack beyond what the operational SNODAS model from the National Weather Service indicated, especially at higher elevations. Dave presented a slide showing the total accumulated snowmelt as of the May 27th forecast. This included snow already in the basin and melted, as well as snow that had fallen and melted over the short term. The total flux between April 1st and the end of the water year was projected to be above 200,000 acre-feet, with a significant portion expected to contribute to streamflow.

A shift in runoff timing had been observed, with actual inflows lagging behind the normal accumulation into Taylor Reservoir. However, inflows were catching up, and there might be a point where accumulated inflows would surpass the normal for a short period before tapering off. The flow accumulation plots for the tributaries (Taylor Park, Willow Creek, and Texas Creek) from the model showed a steep rise, supported by USGS stream gauging observations. Notably, the Taylor River flows had surpassed 800 cfs, indicating an increasing trend with significant variability.

Dave highlighted some peculiarities in the Willow Creek data, suggesting that there might be leveling out of diurnal cycling in recent days. The model indicated peak flow representation for about another week to week and a half, after which things would start to mellow out.

Dave emphasized that the ASO assimilation aligned with Erik's presentation, predicting a significant June flow sustained into July due to a replenished groundwater system from the heavy snowpack. The primary difference in forecasts was attributed to the detailed characterization of the snowpack through ASO surveys, which captured more data at higher elevations.

Don asked if the groundwater was replenished and inquired about the current soil moisture levels.

Dave responded that he hoped to get data over the weekend with the full report. In the prior report, things were trending upwards in basin maximum for soil moisture. He noted that Taylor Park was drying out while higher elevation soil moisture was reaching its maximum.

Mark asked Dave to provide a history of their observations, specifically when they first started doing the aerial surveys.

Dave stated that they began the aerial surveys in 2016, with subsequent flights in 2018, 2019, and more recently. He mentioned that during the time span ASO had been flying, they probably had two or three different version upgrades of the model. These changes could impact overall model performance, but they hadn't seen any degradation across the version changes. The biggest sensitivities in their forecasts arose from the precipitation forcing used, the assimilation of ASO snowpack information to get the correct elevation distribution, and characteristics related to snow albedo, dust, and reflectance.

He elaborated that they hadn't made any major upgrades to the dust albedo formulation in the model, but they would adjust the assimilation process if the snowpack loss rate accelerated and could be attributed to dust differences between the model and aircraft observations. This year, the ablation patterns in the model had stayed well on track with the ASO-provided snapshots. Despite having more snow at high elevations than SNODAS indicated, this was likely due to precipitation estimation issues. The higher numbers in their forecasts were justified based on the substantial high elevation snow, which was not fully captured by SNOTEL. He acknowledged the observations from those on the ground, including comments from Mount CB, confirming significant high elevation snow.

#### **IV. Preliminary TLUG Draft Operational Release Recommendations**

Ryan inquired about potential concerns for the Gunnison River if Taylor River flows were increased while the East River was also reaching its peak.

Bev responded that the highest flow recorded recently was 4,400 acre-feet in the Gunnison River, and parts of the river were closed from Almont to Country Road.

Mark suggested that more water should have been released in May to avoid potential spills. He proposed a strategy of releasing 600 cfs now and maintaining 400 cfs from July 1st to August to prevent high releases that could harm boating activities.

Andy agreed that releasing more water in early June would be beneficial and recommended maintaining higher flows through July and August. He supported increasing releases to 600 cfs now to avoid hitting the spillway.

Roark was fine with earlier releases, especially considering the impact on recreation and safety. He proposed starting the 600 cfs release as soon as possible and maintaining it through June.

Andy agreed with recommendation to increase releases now to 600 cfs and suggested maintaining 450 cfs in July.

Dave asked if they could wait until the following week to increase flows to 600 cfs.

Erik said they would monitor daily flow forecasts to determine if increased flows were necessary.

Ernie highlighted the challenges of forecasting and suggested starting with 600 cfs and adjusting as needed, with a mid-June meeting to reassess the situation.

Erik assured that the reservoir would be managed to avoid spilling.

Sonja noted that June was unusual, and adjustments might be needed in July.

In conclusion, Mark moved to have the Bureau of Reclamation operate to prevent spilling in June and release extra water sooner rather than later to avoid high releases of 650-700 cfs later. Andy seconded the motion. The motion carried.

Erik confirmed they could increase releases as soon as possible and would monitor inflows over the weekend.

Erik mentioned they could regroup later in the season to discuss late-season flows and ramping down.

There was a question about whether there would be concerns from GCEA regarding our flow changes and effects on hydro operations when it is operational. Sonja clarified that under the lease of power privilege that the reservoir is operated as “run of the river”.

Don inquired about setting the next meeting date. Erik stated his forecast would be ready by June 21st.

The next meeting was therefore scheduled for June 21st at 10:00 AM.

## **V. Drought Contingency Planning Presentation- Stacy Beaugh and Carrie Padgett**

Stacy and Carrie gave a presentation to the TLUG explaining the drought planning process and had a few questions for the group regarding how drought impacts the TLUG and sought input regarding recommendations for UGRWCD in developing mitigation and response actions, etc. Input from the TLUG will be summarized as part of the DCP process stakeholder engagement report.

## **VI. Miscellaneous Matters**

Dan Brauch from CPW provided an update on Spring Creek Reservoir. He explained that efforts were made to manage storage effectively during the winter period, aiming to store

as much water as possible without causing potential icing issues with the two installed siphon tubes. These siphon tubes were crucial for handling runoff and maintaining operational levels set at 28 feet. Although they did a good job managing storage, early spring adjustments were challenging due to the rapid filling of Spring Creek, which saw an increase of about 1.7 feet per day. Last Wednesday, the reservoir reached its operational level of 28 feet, prompting the activation of the siphons. These siphons will operate until the reservoir is drawn down to around 24 feet, after which it will begin filling again. During this period, the outlet tube remains fully open.

Dan mentioned that the reservoir will refill if inflow exceeds the outlet capacity, which is expected. Monitoring of elevations will continue, and manual restarting of the siphons will be necessary when the reservoir nears 28 feet. While control over storage levels using the siphons is effective, maximizing winter storage has proven difficult. Therefore, it is anticipated that storage will be allowed to drain more during the winter to prevent potential damage to the siphons from ice. This decision is partly due to access difficulties early in the season and is seen as a safety measure.

Going forward, the strategy will involve maintaining a lower storage level, around 22 feet, to avoid ice damage and better manage runoff. This approach will likely continue until a project to repair the spillway can be funded and completed. The spillway repair is a significant and expensive project necessary to alleviate current operational constraints.

From a fisheries perspective, storing as much water as possible through the winter would be ideal, but the current conditions make this challenging. As a result, storage will be drawn down more than in previous years, likely falling below 22 feet, with complete drainage at 10 feet. Historically, inflow far exceeded outlet capacity, causing overflow at the spillway, but now there is a need to manage more inflow to prevent exceeding the 28 foot level.

Despite these fluctuations and operational challenges, the reservoir conditions during summer are expected to support good recreational water levels, maintaining the fishery. The reservoir should fill well, operating between 24 and 28 feet, which supports recreational activities. CPW will continue stocking catchable rainbow trout to maintain fishing opportunities, although at a lower level than in previous years. However, during winter, the reservoir will need to be drawn down below ideal levels for the fishery to ensure proper management and prevent damage.

Sonja expressed UGRWCD willingness to support the efforts to repair the spillway at Spring Creek Reservoir. She encouraged Dan to inform them how they could be a partner in the fundraising efforts for the project.

Sonja informed the group that the UGRWCD 65th anniversary celebration will take place on June 24th.

Alana provided an update on the Gunnison River Festival. The Taylor Downriver Race is scheduled for Friday, June 21st, starting at 5:30 p.m. Following the race, an afterparty



will be hosted by Three Rivers Resort and Scenic Rivers. The main festival event will take place on Saturday, June 22nd, from 11:00 a.m. to 4:00 p.m. Activities planned for the festival include spectator events, live music performances, a variety of food vendors, and engaging activities for children.

## **VII. Adjournment**

The next TLUG meeting is scheduled for Friday, June 21<sup>st</sup>, at 10:00 a.m.

The June 7<sup>th</sup>, 2024 TLUG meeting was adjourned by Chairman Sabrowski at 11:51 a.m.