

# RESOURCE AND ENGINEERING PLANNING COMMITTEE

## MINUTES

February 2, 2023

A meeting of the Resource and Engineering Planning Committee was held on Thursday, February 2, 2023, at 10:04 a.m. at the District Office, 31717 United Avenue, Pueblo, Colorado and via Zoom virtual meeting.

Chairman Mitchell announced a quorum was present.

### **COMMITTEE MEMBERS PRESENT:**

Curtis Mitchell – Chairman, Andy Colosimo, Seth Clayton– Vice Chairman, Pat Edelmann, Tom Goodwin (remote), and Jim Broderick

### **COMMITTEE MEMBERS ABSENT AND EXCUSED:**

Bill Long

### **OTHERS PRESENT:**

Alan Hamel, and Matt Heimerich (arrived 10:44 a.m.), Southeastern Colorado Water Conservancy District (District) Directors; Mike Holmberg, Bureau of Reclamation; Chris Woodka, Garrett Markus, Margie Medina, Lee Miller, Peter Levish, and Leann Noga, District staff.

Zoom Participants: Bub Miller by zoom at 10:40 a.m., and Patty Rivas, District staff.

### **APPROVAL OF MINUTES:**

Chairman Mitchell asked for approval of the November 10, 2022, Resource and Engineering Planning Committee minutes and if there were any corrections or additions. Seth Clayton moved, seconded by Pat Edelmann, to approve the minutes. Motion passed unanimously.

### **PRESENTATIONS:**

#### **JAMES W. BRODERICK HYDROPOWER PLANT UPDATE (JWBHP)**

Garrett Markus updated the Committee on the James W. Broderick Hydropower Plant (JWBHP) starting with the current operations for the month of January 2023. The flow ranged between 95-105 cfs with energy deliveries of 496 MWHRS. Power production was roughly twice of January 2022 but was 68 percent of average expected generations. The 496 MWHRS are scheduled deliveries with actual generation 518 MWHRS. Less power will be scheduled to reduce the schedule-generation imbalance.

In October 2022 Black Hills Energy changed the hydro facility classification which was a CO 879 – demand based commercial to a CO 711 – use based commercial. The powerplant uses grid power when shutdown, however when the plant is generating power, the plant uses its own power for the facility. Monthly power bills reduced from \$1,000/month to \$15/month.

Jim Broderick informed the Committee that Garrett Markus will now present on the JWBHP instead of Kevin Meador to have some overlap.

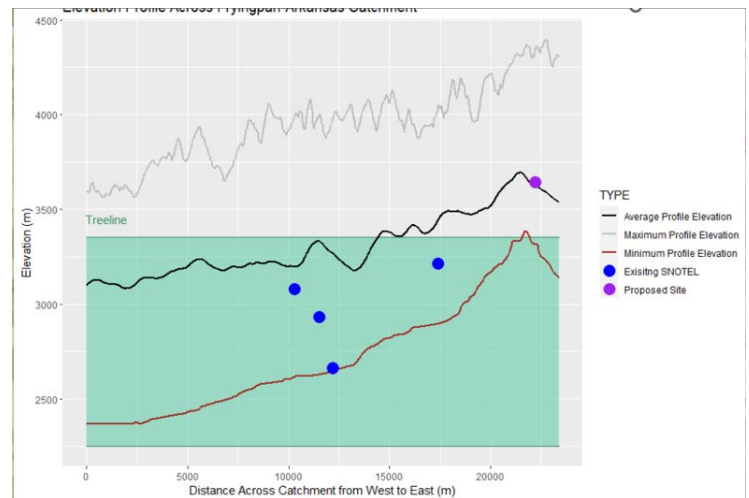
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**STREAMFLOW FORECASTING PROJECTS**

Garrett Markus reviewed 2023 budget, specifically regarding streamflow forecasting. The program has morphed from initially studying new USDA Snotel sites at higher elevations in the Fry-Ark collection system to looking at all available technology to better predict Fry-Ark imports through other methods. For 2023, both the USGS and Colorado Airborne Snow Observatory (CASO) have launched more intensive snow survey programs and modeling to help prediction snowpack induced runoff.

The District has executed a Joint Funding Agreement (JFA) with USGS to start the study of enhanced snowpack monitoring for improving streamflow forecasting for systems operations in the Fryingpan-Arkansas Collection System. USGS goals are to expand availability of snowpack data within the Collection System by high-elevation continuous monitoring station and non-invasive snow surveys to better understand snowpack variability. Engaging in a deeper view into forecasting with blowing snow particle flux, soil moisture/temperature, four-component radiation (shortwave/longwave), wind speed/direction to name a few. This will be broken down in to three phases; this year will be Phase 1. Bureau of Reclamation is a funding partner in Phase 2 and 3. The 2023 JFA identified two proposed sites currently in review above 12,000 ft. Initially the site was above Ivanhoe but due to avalanche risk the USGS and Bureau of Reclamation are considering above the Cunningham diversion. The graphic indicates the elevation of the new site is significantly higher than the current ones.



Airborne Snow Observatories (ASO) and the Colorado Airborne Snow Measurement Program with Taylor Winchell, Denver Water and Jeff Deems with founder of ASO work with mapping the two most critical snow properties to forecast runoff volume & timing. Basin snowpack will be indexed using station data.

**ACTION ITEMS:**

None

**INFORMATION ITEMS:**

None

**OTHER BUSINESS**

None

**NEXT MEETING**

The next meeting will be set for Thursday, March 2, 2023 at 10:00 a.m.

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**ADJOURN**

Chairman Mitchell adjourned the meeting at 11:21 a.m.

Respectfully submitted,

Garrett J. Markus, P.E.

Water Resources Engineer