

RESOURCE AND ENGINEERING PLANNING COMMITTEE

MINUTES

March 2, 2023

A meeting of the Resource and Engineering Planning Committee was held on Thursday, March 2, 2023, at 10:00 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, Seth Clayton– Vice Chairman, Pat Edelmann, Tom Goodwin, and Jim Broderick (remote)

COMMITTEE MEMBERS ABSENT AND EXCUSED:

Andy Colosimo and Bill Long

OTHERS PRESENT:

Bub Miller (10:50 a.m.), Mark Pifher (10:58), and Matt Heimerich (arrived 10:57 a.m.), Southeastern Colorado Water Conservancy District (District) Directors; Mike Holmberg, Bureau of Reclamation; Gordon Dillon, Kleinfelder; Brandon Forbes, Erin Hennessey, Andy Creighton, and Crystal Brown – USGS; Chris Woodka, Garrett Markus, Margie Medina, Mark Scott, and Leann Noga, District staff.

Zoom Participants: Jerry Pena, Kennedy Jenks; Terry Dawson Bureau of Reclamation; Curtis Thompson, AECOM (10:59), Patty Rivas, Lee Miller, Kevin Meador, and Peter Levish District staff.

APPROVAL OF MINUTES:

Chairman Mitchell asked for approval of the February 2, 2023, Resource and Engineering Planning Committee minutes and if there were any corrections or additions. Tom Goodwin moved, seconded by Seth Clayton, 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 February 2023. February generation was down due to a 10-day outage from February 13 to 22. The outage was due to a generator issue that required some parts to be fabricated. The remainder of the month showed a steady generation of about 20 MWhrs per day or about 74 percent of average generation.

FACILITY CONDITION ASSESSMENT, SECWCD HEADQUARTERS

Mark Scott updated the Committee on the Southeastern Colorado Water Conservancy District (District) Headquarters Facility Condition Assessment. The District Headquarters Facility Condition Assessment is a subset of the larger Asset Management Program that was started in 2020. The individual Feature Condition Assessments will update the values in the Asset Management Program that produce a 20-year Capital Improvement Plan.

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The Headquarters Condition Assessment covered a detailed assessment of the facility, developed an inventory of key features, assigned each feature a condition score, assigned each feature a “Current Replacement Value” and “Estimated Service Life”, and developed a 20-year Capital Improvement Plan (CIP). The current replacement value of \$2,641,364.00 was broken down by substructure, shell, interiors, services, special construction, and site. Mark Scott reviewed areas such as handicap sign, garage, parking lot, roof top, and HVAC units that were considered in the assessment.

USGS 2023 STREAMFLOW FORECASTING PROJECT

Last Committee meeting Garrett Markus reported on two Streamflow Forecasting programs for 2023, the USGS Snow Survey versus Colorado Airborne Snow Observatories (CASO), to help predict snowpack induced runoff. For the specific information of the USGS study, Garrett invited the USGS to present directly to the Committee on the Fryingpan-Arkansas snow monitoring currently underway. A USGS team toured the collection system in August 2022 to scout out potentially viable sites. The original proposed site on Hagerman Pass was unfeasible; however, another location near Cunningham Pass was chosen because access will be safer, accessible with deep snowpack, and still meet the project goals. Cunningham Pass has two potential access points, both routes include miles on the snowmobile/snowcat and backcountry ski touring but maintaining safety as the key to evaluate avalanche risk on-site and plan accordingly.

Survey locations will contain three snow pits (with the location based on where snow persists in satellite imagery), twenty snow cores, GPR track, snow depths of 100 plus meters. The range of elevation of 11,720'-12,160'. Imagery was provided of the Ivanhoe SNOTEL site (elevation 10,541') for May 29, 2022 reading zero snow water equivalent (SWE). However, satellite imagery shows widespread snow cover persisting at higher elevations in the basin on that date persistent snow was still visible on June 9 and June 19.

The USGS will measure snowpack variability using the following:

- snow pits, in-depth information regarding snow properties, takes over an hour to dig the pit
- snow probe, has point measurement, 10-15 meters, takes about five minutes
- sled-based ground penetrating radar, continuous measurement, 1 cm step size, time is less than a second, covers a large spatial extent, pseudo-3D surveys are possible.

The USGS 2023 Joint Funding Agreement:

- Funding: \$15,000 SECWCD and \$15,000 USGS for a project total of \$30,000
- Two comprehensive field campaigns completed each year in close collaboration with our partners (Weeks of March 27 & April 24)
- Three teams - snow pits, snow probes, and GPR collection
- Snowpack variability data are published in a data release online
- Work with BOR to incorporate new and enhanced data into forecast models
- Building datasets and understanding for Phase 2 – Identifying best location for the permanent monitoring station.

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-

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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. 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.

ACTION ITEMS:

RECOMMENDATION FOR APPROVAL OF AN AGREEMENT FOR OPERATIONS SERVICES AT THE JAMES W. BRODERICK HYDROPOWER PLANT BETWEEN THE SOUTHEASTERN COLORADO WATER ACTIVITY ENTERPRISE AND KLEINFELDER, INC.

Kevin Meador reported that staff recommends that the Resource and Engineering Planning Committee recommend that the Enterprise Board approve the Agreement for Operations Services Between the Southeastern Water Activity Enterprise and Kleinfelder, Inc.

This agreement is the continuation of the past contract for operations services at the James W. Broderick Hydropower Plant (JWBHP). Kleinfelder, Inc. has provided the Lead Operator, Gordon Dillon, at the plant since its operations began in 2019. Mr. Dillon has provided excellent services for the operations and maintenance of the facility and the Enterprise desires to continue those services for 2023. The budgeted amount for this contract is \$45,950.

Seth Clayton moved that the Resource and Engineering Planning Committee recommend to the Southeastern Colorado Activity Enterprise Board to approve an Agreement for Operations Services Between the Southeastern Colorado Water Activity Enterprise and Kleinfelder, Inc., seconded by Pat Edlmann. Motion passed unanimously.

INFORMATION ITEMS:

None

OTHER BUSINESS

None

NEXT MEETING

The next meeting will be set for Thursday, April 6, 2023 at 10:00 a.m.

ADJOURN

Chairman Mitchell adjourned the meeting at 11:07 a.m.

Respectfully submitted,

Garrett J. Markus, P.E.

Water Resources Engineer