FOR IMMEDIATE RELEASE
(August 8, 2023)

(HOLDREGE, Neb.) - The Central Nebraska Public Power and Irrigation District’s board of directors approved a contract with RJH Consultants, Inc., of Englewood, Colo., at Monday’s monthly board meeting in preparation for a project to repair the slope protection on the face of Kingsley Dam.

Tom McDougall, an engineer with RJH, provided the board with several alternatives for slope protection repairs that his firm analyzed. The alternatives ranged in cost from more than $250 million to completely replace the existing slope protection with pre-formed concrete blocks to a $15 million approach that would be only a temporary repair and apply a short-term solution to those areas showing current damage. However, the consultant noted that recent inspections determined that the existing riprap lacks proper bedding over a much larger area of the dam than just the areas where damage is apparent and that a full dam refacing will ultimately be required at some point in time.

In between were alternatives with estimates that ranged from $40 million to $200 million for other options to provide long-term slope protection for the dam. The recommended alternative is for replacement of the riprap with concrete-faced soil-cement, tentatively estimated to cost $50 million, which provides a cost effective long-term solution.

The $505,000 contract with RJH provides a scope of work, schedule and the fee to get to a final design for the project by mid-December 2023.

During the winter and spring of 2021-22, sustained high winds resulted in a series of wave events that displaced existing riprap and subjected materials in the underlying filter blanket to erosion. The existing slope protection consists of riprap (large granite rocks and concrete “jackstones”), a layer of smaller bedding material and sand/gravel that comprise the shell of the dam. These external layers protect the core of the dam, which is composed of watertight silts and clay.

The damaged areas are currently located at water levels at or above elevation 3,240 feet, which is about six feet above the current water elevation. Water levels at Lake McConaughy will continue to decline over the remainder of the irrigation season, providing more space between the water and the damaged areas. Central officials stressed that the dam is safe and the work to reface the dam is part of the District’s responsibility to ensure that into the future.

Rochelle Jurgens, Central’s controller and finance manager, provided the board with a list of potential financing options for such a repair project. One option includes issuance of bonds based on Central’s financial reserves and use of some money from the reserves. Issuing bonds will result in some changes for the District, including starting earlier negotiations for future power generation contracts, and pledging all future net revenues (including those from irrigation deliveries and hydropower generation) to bond repayment.

The board also approved a budget amendment moving an existing $2 million in the 2023 budget that was anticipated for the localized dam repairs to contracted services to begin the engineering process for the full refacing project.
Also at Monday’s board meeting:

- Civil Engineer Tyler Thulin reported that Lake McConaughy’s elevation is currently 3,233.9 feet, or 54.8 percent of capacity. Inflows were 1,050 cubic feet per second (cfs) on Monday morning and releases were 1,700 cfs.

- Hydraulic Project Operations Manager Cory Steinke reported that construction of the new bridge over the Supply Canal below Midway Lake is underway.

- Irrigation and Water Services Manager Scott Dicke reported that recent rainfall in Central’s service area has reduced demand for irrigation deliveries. Also, he said, Central will begin releasing more water from Elwood Reservoir in preparation with the upcoming project to install a toe drain system below Elwood Dam. Contractor mobilization is to begin this week and the project should begin around Sept. 1.