

The Communicator

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New regulating reservoirs promise multiple benefits

The Central Nebraska Public Power and Irrigation District has been engaged in the process of planning and designing two new reservoirs associated with its hydro-irrigation system since 2009 when a study of several options to improve water management identified the J-2 Regulating Reservoirs as the preferred alternative.

The J-2 Regulating Reservoirs Project is a collaborative effort by Central, the Platte River Recovery Implementation Program (Program), the Nebraska Department of Natural Resources (DNR) and three Natural Resources Districts.

Construction of the reservoirs will provide several benefits that will improve water resources management in the Platte Basin.

The primary benefit of the project is

the reservoirs' ability to "re-time" flows in the Platte River. In other words, the reservoirs will be able to temporarily store water that is in excess of target flows (flow rates determined by the U.S. Fish and Wildlife Service to be beneficial for threatened and endangered species and downstream habitat) and then returned to the river when flows are below target levels.

The reservoirs' re-timing feature enables the project to have the same impact on water supplies as removing irrigation use on up to 90,000 acres in the Platte Valley, which would result in a significant economic impact on the area.

Benefits to Project Partners

Central benefits from the J-2 Regulating Reservoir Project because it will function as a "downstream regulator"

for its J-2 Hydropower Plant (J-2 Hydro). The reservoirs will allow Central to operate the J-2 Hydro at peak efficiency without causing rapid fluctuations in Central's Phelps irrigation canal during the irrigation season and the river downstream.

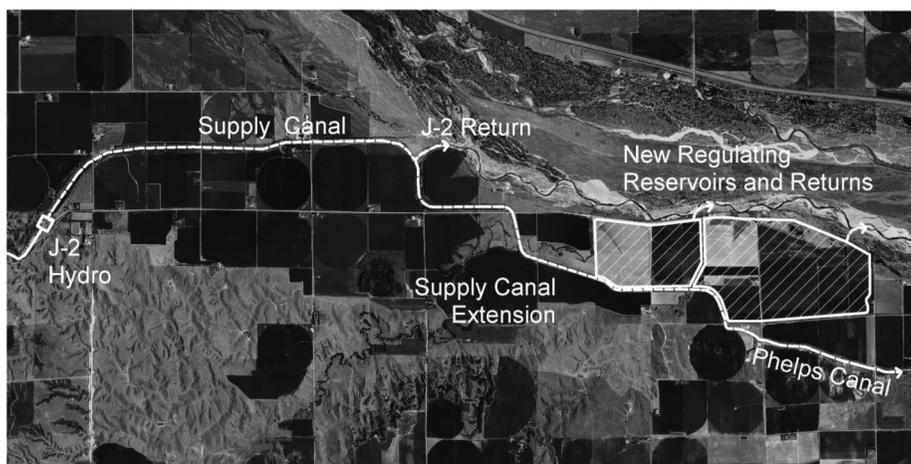
From an operational standpoint, these efficiency gains will benefit all stakeholders — irrigation customers, cabin-owners, power customers, recreation and wildlife interests, etc. — who rely on water from Central's system.

The reservoirs will also reduce the impact of a flow attenuation plan on Johnson Lake. The plan, part of Central's federal operating license, requires Central to maintain space in Johnson Lake to temporarily capture high flows that may result from large rainfall events that could affect the birds' nests along the river. The regulating reservoirs would achieve this function, allowing operation of Johnson Lake at higher, more stable levels during the spring and summer recreation season.

The **Platte River Program**, a cooperative effort by Nebraska, Wyoming, Colorado and the U.S. Department of the Interior, serves as the "reasonable and prudent alternative" for water projects that might otherwise face difficulties in obtaining permits because of the Endangered Species Act. One of the Platte River Program's main objectives is to improve river flows for threatened and

(Continued on p. 2)

J-2 Project Concept



J-2 Regulating Reservoirs Project *(from p. 1)*

endangered species by reducing short-ages to target flows by an average of 130,000 to 150,000 acre-feet per year by 2019.

With several other water projects already in place (a groundwater recharge/retiming project in Colorado; increased storage capacity behind Pathfinder Dam in Wyoming; and the Environmental Account at Lake McConaughy), the J-2 project's estimated contribution of more than 30,000 acre-feet per year is about half of the remaining 50,000 to 70,000 acre-feet per year needed to meet Program objectives. A program of water conservation and supply activities is expected to provide the rest of the water.

The J-2 reservoirs -- which will also have the capability to provide small "pulse flows" in the Platte River, another Program objective -- will help meet Program water goals through

retiming of flows, without the need to acquire the water from other existing uses.

The **State of Nebraska and three Natural Resources Districts** (Tri-Basin NRD, Central Platte NRD, and Twin Platte NRD) will also benefit from the J-2 Regulating Reservoirs Project. Nebraska and the NRDs are required by law to offset for "new depletions" to the Platte River that are the result of new or expanded uses in Nebraska, including groundwater pumping, since 1997. The reservoirs will give Nebraska and the NRDs approximately 10,000 acre-feet per year of "credit," at a lower cost than other alternatives, again by retiming flows rather than by retiring or restricting irrigation uses.

Project Status Update

Central staff recently implemented a new system for sharing information

about the J-2 project with the board of directors and the public. The system provides a status update that tracks completed tasks and tasks in progress, and lists future major tasks for the J-2 project. Within the past year, accomplished tasks include:

- Agreement on a water service agreement with the Program, the NRDs, and the DNR;
- Selection of the primary consultants to assist with engineering, cultural resources, permitting, land acquisition, and environmental studies;
- Approval of a petition to modify Central's facilities;
- Completion of an initial consultation document by state and federal agencies; and
- Initial public hearings and offers to landowners.

J-2 Project will help resolve "hydrocycling" issue

The term "hydrocycling" is often used in connection with the J-2 Regulating Reservoirs project, but what's behind the technical jargon?

After receiving its new license from the Federal Energy Regulatory Commission in 1998, the U.S. Fish and Wildlife Service (FWS) expressed concerns about operation of the J-2 Hydroplant and impacts on the Platte River below the J-2 River Return.

After Central received its new license, the FWS raised the possibility of "criminal consequences" for Central under Section 9 of the Endangered Species Act, which covers unlawful "taking" of a species protected by the ESA. Taking is defined by the FWS as any activity that harms or harasses a protected species, including any act that causes significant habitat modification or degradation that results in

injury to the protected wildlife or impairment to essential behavioral patterns.

Those concerns, and the possibility that Central's license would be reopened for the inclusion of additional conditions that would further restrict Central's ability to generate hydroelectric power, led to negotiation of a hydrocycling agreement with the FWS. The agreement requires operations that reduce significant fluctuations in Platte River flows during the whooping cranes' migratory seasons. Theoretically, smaller overnight stage changes on the Platte River would reduce the incidence of whooping cranes being forced from their river roosts in the dark.

Hydrocycling operations take place each year from March 18 to April 30 and from Oct. 17 to Nov. 10. These

periods can be extended if whooping cranes are known to be near the Platte River.

While the agreement satisfied the USFWS at the time, it caused inefficiencies in the operation of the hydroplant and did not completely alleviate the agency's concerns about impacts on the cranes. The J-2 reservoirs will allow Central to operate the hydroplant more efficiently while smoothing out the fluctuations in river flows that are of concern to the FWS.

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On the Lakefront



The Central Nebraska Public Power and Irrigation District has hired a consultant to begin designing a pedestrian bridge at Johnson Lake. Lance Harter of Oak Creek Engineering in Kearney has been hired to design a bridge to allow for pedestrians to cross the outlet canal at Johnson Lake.

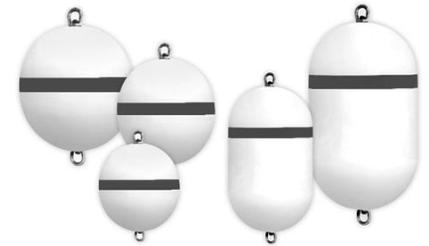
The bridge will be a wooden structure 10 feet wide. It will be located approximately six feet upstream of the current outlet bridge. This location was chosen because it will allow Central to save nearly \$50,000 by using the current bridge supports to

hold the 30 ton crane used during construction. If the board of directors approves of the design and votes to begin construction of the bridge, work will begin sometime around mid-September 2015.

Central recently held our first annual stakeholder meetings in Ogallala, Gothenburg, and Lexington. Turnout ranged from the mid-teens to over 60. During the meeting, Central staff presented information on how the water system operates as well as contemplated changes to the permitting procedures. An invitation to provide input was extended and 3 emails were received. The target of having the newly edited permitting procedures in place mid-summer is on track. Once it becomes official, the news will be disseminated through the various lake associations and Central's web page.

If you would like more information or if you have a suggestion for improvement, please send an email to jbrown@cnppid.com.

Buoys – The US Army Corps of Engineers and the US Coast Guard regulate buoys on navigable rivers throughout the nation. On other waters, the Federal, State, or other regulatory agency responsible for the operation of the lake is responsible for ensuring the consistent, safe, and adequate placement of buoys. Central District customers may apply for the placement of mooring or information buoys. These buoys have specific placement and anchoring requirements and must conform to US Coast Guard buoy specifications.

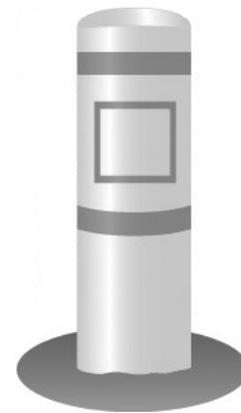


Mooring Buoys

Mooring Buoys: Mooring buoys are white with a blue horizontal band. This distinctive color scheme facilitates identification and avoids confusion with aids to navigation.

Information Buoys: Information buoys are used to alert a boater to various warnings. Information buoys have an orange square or rectangular shape against a white background.

The orange shape will contain information lettered within the shape



Information Buoys

Buoys with messages that are regulatory, prohibited, restrictive, or indicating danger may only be installed by the Nebraska Game and Parks Commission or Central Nebraska Public Power and Irrigation District.

If a mooring buoy or an information buoy is desired, a customer should contact Central staff and discuss the need and type of message that is desired. Central may issue a permit if the use is consistent with its regulatory documents and the District's objective to protect scenic, environmental, and recreational values.

J-2 Project *(from p. 2)*

More recently, negotiations with landowners were initiated and agreements were reached to allow access to most of the land within the project's footprint for geotechnical studies. Data from the studies is currently being analyzed. In addition, preliminary design work for the reservoirs has begun, as have consultation with federal and state agencies on various aspects of the project. Studies are also underway to determine if there are impacts to wetlands, water quality and cultural resources.

Future tasks include application to the Federal Energy Regulatory Commission for an amendment to modify Central's license to include the J-2 project, completion of the land acquisition process, federal and state issuance of the final permits, final reservoir design, followed by the process of advertising for bids from contractors to construct the reservoirs.

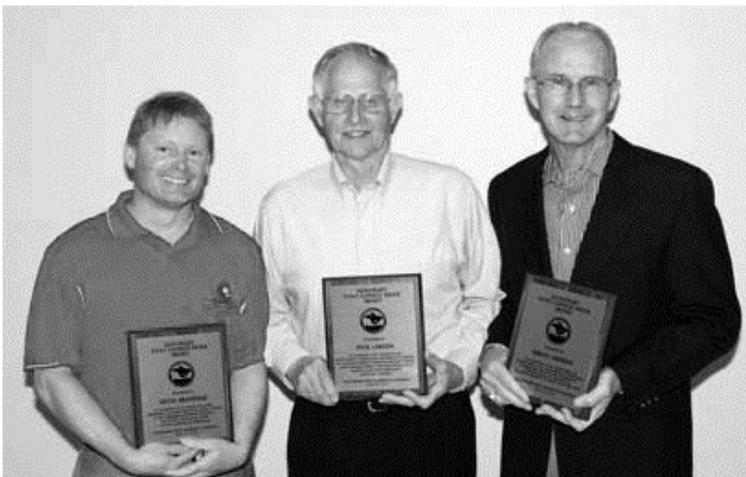
Progress reports during the board's monthly meetings will be a regular agenda item. The public is welcome to attend Central's board meetings.

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and Irrigation District
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Brundage Honored with Pony Express Rider Award



Pony Express Honorees — Pictured are (l-r) Devin Brundage, Dick Larson and Verlin Janseen who were honored for their many contributions to the community.

Central's Electrical Superintendent Devin Brundage received the Pony Express Rider award from the Gothenburg Chamber of Commerce. This award is given to individuals or groups who go above and beyond the call of duty for betterment of the community, or who contribute to the eco-

nomic stability of the community.

Brundage was specifically honored for his contributions to the Gothenburg Community Playhouse and Sun Theatre, where he has acted in numerous plays, and helped with electrical issues.

Brundage also served his community on the Chamber of Commerce and the District 20 school board; he is also involved in the First United Methodist Church.

Gothenburg Division Manager Kevin Boyd said, "We at Central always knew how talented Devin is; now the community of Gothenburg has "discovered" him."

Brundage has been with Central for 23 years, and has played a key role in many large projects including the recent installation of the new supervisory control and data acquisition (SCADA) system.

Congratulations Devin!

<http://www.cnppid.com>

On the Web

Central has been utilizing social media to keep patrons informed. If you're interested in keeping in touch, "like" our Facebook page at www.facebook.com/cnppid.