

The Communicator

Published by The Central Nebraska Public Power and Irrigation District

Editorial

Water Funding is Opportunity for Nebraska

The Nebraska Legislature passed landmark legislation this spring that will provide state funding for water sustainability projects, programs and activities and an opportunity for Nebraska.

Over the years, an annual, dedicated source of state funding for water development and conservation has been somewhat of a “holy grail” in the field of water management. Past funding, while not insignificant, wasn’t enough to address larger needs that would ensure sustainable water resources for the future .

Sen. Tom Carlson of Holdrege championed water sustainability efforts for most of his two terms in office. He introduced LB517 in 2013 to establish the Water Funding Task Force with the goal of identifying a permanent source of funding to ensure the effective and sustainable management of Nebraska’s water.

As a result of the Task Force’s work and Sen. Carlson’s leadership and persistence, legislation was introduced to appropriate funds for water sustainability projects. Funds were appropriated as part of one of this year’s budget bills, providing a one-time transfer of \$21 million to the newly created Water Sustainability

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SCADA Upgrade Improves Control of Hydro-Irrigation System

By Holly Rahmann, Public Relations Assistant

Central’s employees have been working diligently since early 2012 to implement a new update to the District’s Supervisory Control and Data Acquisition (SCADA) system

Central uses the SCADA system to



SCADA Upgrade — Assistant Control Operator Logan Ricley controlling water and hydropower operations from the Gothenburg Control Center on the new SCADA system.

control the hydroplants and substations, track and maintain water levels in the canals, maintain lake levels and outflows from each reservoir, track hydropower generation, precipitation levels, and many other uses throughout Central’s canal system.

Central first automated its hydro-irrigation system with SCADA capabilities in 1972 and gradually increased the number of facilities under automated control. The system was last updated in 1984, but in recent

years, Central employees have encountered difficulties with maintenance of the system as technological advances made finding replacement parts almost impossible. Electrical Superintendent Devin Brundage and Engineering Services Manager Eric Hixson have been in charge of the system update and have invested a great deal of time into ensuring that the new components are working properly.

“The biggest issue we were facing with the old system was finding parts,” Brundage said. “I was literally buying parts on eBay because they just don’t sell them anymore.”

Brundage has been working with Survalent Technology, the company that designed the new SCADA system, to get equipment set up and communicating properly.

Most of the existing Remote Terminal Units (RTUs; microprocessors at remote facilities that communicate with the Gothenburg Control Center) have not needed to be replaced. Therefore, another challenge is making sure the existing RTUs are communicating properly with the new SCADA technology.

Brundage said that another benefit

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Lost Creek Flume to be Replaced with Pipeline

Central's board of directors approved a work order at May's board meeting to replace the flume that carries water from the Phelps Canal system over Lost Creek northwest of Axtell.

The 1,300-foot-long flume dates to the original construction of the irrigation canals and has required extensive maintenance over the years, including the installation of a liner. It has deteriorated to the point that continued



maintenance is no longer considered feasible. The steel flume resting on wooden trestles will be replaced with a

2,700-ft.-long, 42-inch pipeline which will carry water to more than 1,785 acres that are currently served with water passing through the flume.

The cost of the project, including flume removal and pipeline construction, is estimated at \$435,000. Work is expected to commence next fall.

There is expected to be an as yet undetermined salvage value for the steel and lumber from the flume.

SCADA upgrade improves operations (cont. from p. 1)

from the upgrade is the expanded capabilities of the new system. Technology has advanced immensely since 1984, he said, and the new SCADA allows the transfer of much more data, as well as smartphone and web interface access.

"Digesting the capabilities of the new system was really a challenge,"

Brundage said. "We have had to sort through all the data, and then decide which capabilities are most important and most useful to us."

Central operates facilities in Keith, Lincoln, Dawson, Gosper, Phelps and Kearney counties from the Control Center in Gothenburg. Control operators continue to become

accustomed to intricacies of the new system as the conversion from the old software and equipment continues.

With a new system up and running, Central employees will be able to make the hydro-irrigation project work even more efficiently throughout the upcoming irrigation season and for years to come.

Kraus Presented with "Friend of Agriculture" Award

Central General Manager Don Kraus was presented with the Holdrege Area Chamber of Commerce's "Friend of Agriculture" award at the Chamber's annual banquet in early April.

Kraus has been employed by Central for 38 years and has been the general manager since 1992. During his tenure, he has helped guide Central through a federal relicensing process that resulted in a new 40-year license for operation of Central's hydroelectric project.

He has also played a role in the development and implementation of the Three-State/Department of the Interior Cooperative Agreement that resulted in the creation of the Platte River Recovery and Implementation Program, a unique partnership with the goal of developing a shared approach for manag-

ing the Platte River. Water users from the three states and local and national conservation groups joined the effort. These stakeholders developed an innovative approach for improving management of the Platte for the health of the ecosystem and the people that depend on it, including surface water and groundwater users in Central's area.

During these two processes, Kraus -- and Central's board of directors and staff -- worked to protect water rights for Central's irrigation customers and to ensure that the groundwater recharge benefits that result from operation of Central's system continue to benefit the area's agricultural producers.

Kraus was also instrumental in launching an engineering study that provided a more complete understanding of the

"groundwater mound" beneath and adjacent to Central's service area that will help facilitate management and operational decisions regarding Central's project as they pertain to sustaining water supplies in the area.

These efforts also provide benefits for others who depend upon water, including municipal and domestic water users, wetlands and wildlife habitat, recreation and hydroelectric generation.

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On the Lakefront



Central's board of directors recently approved a contribution of \$100,000 from the District's Lake Improvement Fund to assist with expansion of the community room at the Lake McConaughy Visitors Center. Partners in the project include the Friends of Big Mac and the Nebraska Game and Parks Commission. Central's contribution will be made in \$50,000 disbursements over the next two years.

The board also approved a request from Johnson Lake Development, Inc., for \$5,000 to offset costs associated with carp removal at the lake. The carp were to be removed this spring by a Minnesota company specializing in such work, but a schedule conflict delayed the project until next spring.

Barring unforeseen circumstances, Lake McConaughy has reached its peak elevation for the spring at 3239.1 feet on Apr. 4, with a volume of 1,067,000 acre-feet. That's the third earliest date on which the spring peak occurred. The reservoir peaked on Apr. 2 last year and on March 23 in 2000.

Inflows over the past 30 days averaged 753 cubic feet per second (cfs), which is 59% of the historical average of 1,284 cfs over the same period.

Jim Brown has been hired as Central's new land administrator. He begins his duties, which include administering policies related to agricultural, recreational, habitat, and other District properties, in late May. Brown, a resident of Holdrege, was



Jim Brown

responsible for similar duties with the U.S. Army Corps of Engineers at Harlan County Reservoir.

Brown takes over for Frank Vetter, who retired after 16 years with Central.

Preparations for construction of the J-2 Regulating Reservoirs continue, with progress on several fronts. Current activity includes:

- Acquisition of federal and state permits covering wetlands, wildlife habitat and water rights;
- Early stages of engineering, includ-

ing road relocation and reservoir design;

- Acquisition of land for the project, now in the appraisal process; public meetings are tentatively scheduled for late summer or early fall;
- Groundwater monitoring investigations including the installation of 22 additional monitoring wells to supplement data gathering from existing wells. The wells will assist in the design of a clay liner in the reservoir to control seepage from the reservoir;
- Cultural resources consultations, including investigation of any historically significant or archeological artifacts in the vicinity of the reservoirs.

The J-2 reservoirs are part of a larger plan to enhance flows in the Platte River to benefit threatened and endangered species and to provide integrated water management benefits for Nebraska.

Central will build and own the reservoirs, but the project is a joint effort by Central, the Platte River Recovery and Implementation Program, the State of Nebraska, and three Platte River Natural Resources Districts.

New water law is opportunity for state (cont. from p. 1)

Fund and \$11 million in each ensuing fiscal year. Separate legislation (LB1098) was introduced to expand representation on the Natural Resources Commission, adding 11 members from diverse interests throughout the state that depend upon reliable sources of water.

LB1098 also set up a mechanism through which proposed water sustainability projects will be analyzed, approved and funded.

With the pieces in place, the opportunity now exists for Nebraska to take meaningful steps toward achieving the goal of water sustainability. During the

debate over the bills, argument was made that Nebraska – with its wealth of groundwater resources in the High Plains Aquifer – is in much better shape than other Plains states that share portions of the aquifer. In addition, steps can be taken to return over-appropriated basins to fully-appropriated status.

However, with about 9 million acres now under irrigation in Nebraska, even relatively small declines in groundwater levels in areas where groundwater and surface water are hydrologically connected – whether caused by drought, pumping or a combination of the two --

can have a significant effect on rivers, creeks, wetlands and reservoirs.

It is true that agriculture is Nebraska's largest economic engine and irrigation water is the fuel that runs that engine particularly on those frequent occasions when drought grips the state. However, the state also depends upon adequate supplies of water for recreation, wildlife habitat, power generation, and domestic, municipal and industrial use. The opportunity that awaits the new Natural Resources Commission is to strike a balance between those many needs for water.

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New Employees Join Central, Retirees Say Goodbye

A number of new employees have joined the Central District in recent months as replacements for retired personnel.

The following new employees have joined the District within the past several months:

Jim Brown, land administrator (starting in late May) in Holdrege; Chris Davison, irrigation service specialist in the Bertrand Irrigation Office; and Kristen Dorsey, administrative assistant in the

Holdrege office. New employees in the Gothenburg Division include Brent DeBoer, system control operator; Dustin Ehlers, general maintenance; Ethan Lambert, general maintenance; Blake Munster, general maintenance; Scott Peterson, general maintenance; Jarrid Rickertsen, electrical/mechanical technician; and Jake Sitorius, general maintenance.

Central also thanks the following employees for their years of service and

wishes them well in retirement:

From Holdrege: Debbie Lerma, administrative assistant, (41 years); Ernie Tropp, equipment operator, (39); Gary Bergsten, controller, (38); and Frank Vetter, real estate administrator, (16).

From Gothenburg: Glen Finke, equipment operator, (30); and Tim Aden, equipment operator, (29).

EA Water Released to Benefit Whooping Cranes

The U.S. Fish and Wildlife Service (FWS) called for releases from its Environmental Account (EA) of water in Lake McConaughy from March 29 through May 10 to benefit endangered whooping cranes. The cranes use the Platte River as a stopover site during their spring migration from Texas to Canada. Additionally, hundreds of thousands of other migratory birds, including more than half a million Sandhill cranes, use the river to roost and feed during March and April.

Established in 1999, the EA is a block of water stored in Lake McConaughy and managed by the FWS to benefit four federally listed species on the Platte River, including the whooping crane, interior least tern, piping plover and pallid sturgeon. EA water helped provide a flow of about 1,700 cubic feet per second through the middle stretch of the Platte River this spring. This flow is the minimum during a dry year considered necessary to provide and maintain roosting and feeding habitat for whooping cranes.

<http://www.cnppid.com>

On the Web

Central's web site has a new look ... and a new web master. Public Relations Assistant Holly Rahmann has revamped the site and assumed responsibilities for content, updates and design. The site will continue to provide information about Central's project, operations, multiple benefits and current issues. New content will include blog entries written by various District personnel on a variety of topics. Check it out if you haven't done so already!