

## **McConaughy Control Structures Getting Repainted**

The Central Nebraska Public Power and Irrigation District's board of directors recently awarded a bid for repainting the outlet structures at Lake McConaughy to Allen Blasting & Coating of Weaver, Iowa. The bid for the project came in at just over \$1.9 million. Included in the bid was preparation of all concrete and steel surfaces and painting of the Outlet Tower and the "Morning Glory" spillway.

This marks the first time repainting the outlet structures since 1996. Currently aqua green in color, the new color choice for the structures will be light grey.

Painting is necessary to prevent rust and to help maintain the structures for the future. All concrete and steel surfaces will be painted from above elevation 47 feet which is near the bottom of the "Morning Glory" gates.

Sandblasting and painting work occur simultaneously to ensure the best condition to paint the surfaces.

The project began with mobilization by the contractor on July 14 and, depending on the weather and number of days suitable for work, could last until the end of the year.

To facilitate staging, storing and accessing equipment and materials for the project, one lane of Nebraska Highway 61 across Kingsley Dam will be closed for a short stretch near the work site. Traffic lights are being used to regulate traffic through the work zone.

Central will require the contractor to



Workers painting the "Morning Glory" structure with updated grey colored paint



Traffic along Highway 61 will be limited to one lane for a short stretch during the painting project

restore full two lane access over the Labor Day Weekend to help with higher recreational use of the lake.

Standing at 185 ft. tall, the outlet tower is used for normal water releases and can discharge water at a rate of up to 7,000 cubic feet per second (cfs).

The "Morning Glory" spillway, so

named because of its appearance from above when passing water, is the flood outlet for the reservoir and only used in the event of very high water levels.

Morning Glory stands 172 feet tall and has a diameter of 101 feet. Its 12 gates are 16 feet high, 22 wide, 3 feet thick and weigh 20 tons.

## **Plans Proposed to Replace Elwood Reservoir E65 Siphon**



The new siphon (marked in white & yellow) project would allow water to flow by gravity into Elwood Reservoir.

A major project to replace the 80-year old critical infrastructure serving 42,000 acres and Elwood Reservoir is on the drawing board.

Currently 7,250 feet of steel pipe make up the E65 siphons. Over the years they have needed numerous costly repairs, occasionally don't meet the capacity of irrigation demands and require pumping water into the Elwood Reservoir.

In the new plan, 5,500 feet of new canal and 5,800 feet of buried plastic pipe would be installed. This would enable water to flow by into Elwood Reservoir, eliminating the need for and cost of pumping water.

The new pipeline would have a greater capacity than the existing siphons (just over 400 cfs). Completion of the project helps ensure uninterrupted delivery of water to the 42,000 irrigated acres along the E65 Canal system in the future. Another benefit to the project is the potential for additional recharge and water conservation.

Design details are still being finalized, but the preliminary cost estimate for the project is between \$14 and \$17 million. Central submitted an application for a grant from the Nebraska Water Sustainability Fund, which could pay for up to 60% of the project. Applications for the grant were due at the end of July with selections being made by the end of the year. The prospects for the project are yet to be determined if funding is not awarded by the WSF.

# **Dawson Board Members and Employees Take Project Tour**

As study of a merger continue between Central Public Power & Irrigation District and Dawson Public Power District, the two entities are getting better acquainted with each other.

One exercise was taking Dawson board members and employees on the Central project tour to allow DPPD personnel to become familiar with Central's operation and facilities.

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# **On the Lakefront**

# Fish Kills at Johnson Lake

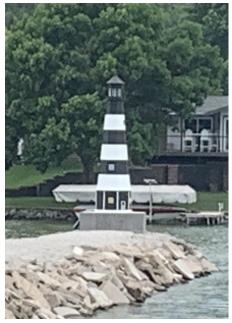
Recently a number of dead fish have appeared at Johnson Lake. To the cabin owner it can be unsightly – and smelly -- around their dock or shoreline; to the angler it is a lost recreational opportunity. For a biologist, it generally means something, ecologically, has gone wrong.

At Johnson Lake, the majority of the dead fish have been freshwater drum. Over the past several years, these kills have become a common occurrence.

Experts with the Nebraska Game & Parks can't identify the exact reasoning for the number of freshwater drum found dead, but they attribute it mostly to the rapidly rising water temperatures, dissolved oxygen issues in the water or even problems associated with harmful algal bloom.

The warmer the weather, the less oxygen the water can hold. Additionally, fish require more oxygen to survive in warmer water than they do in cold water because their metabolism is higher. All these factors contribute to the fish getting stressed as they try to adapt to the changing environment. Freshwater drum are bottom dwelling fish so when the water warms up at lower depths, the fish aren't able to extract sufficient oxygen from the water.

Any cabin owner or fisherman with further questions should reach out to the local Nebraska Game & Parks office with any fish-related concern or the Nebraska Department of Environmental Energy with any water quality concerns.



A new lighthouse project was completed in Lakeview Acres at Johnson Lake. Central provided monetary support from the Lake Improvement Fund.

#### Playground Project Gets Support from Board

A group of residents from the lake are discussing plans to raise funds to install a playground area near Johnson Lake Drive 1A which lies east of the East Shore area and north of the outlet channel. Central's Board of Directors have expressed support for the Johnson Lake playground plan, but work continues on how that project proceeds forward.

Employee Name	Project subject matter	Contact Info
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# **Projections for Lake Elevations**

Predicting the future water level at Lake McConaughy is not an easy task and many variables are at play when trying to determine where the elevation may end up at the end of the summer.

Civil Engineer Tyler Thulin predicts that the lake will end up about 9.5 to 10.5 feet lower than the current elevation which is around 3,244 feet above sea level or approximately 67% percent of capacity.

If current conditions, which include inflows and irrigation demand, remain steady that would put the lake elevation around 3,234-3,235 feet at the end of the irrigation season.





Central's van is going to Husker Harvest Days Sept. 14, 15 and 16 in Grand Island and you're invited to join us!

The van will depart from Central's Holdrege office at 8:30 a.m. and return by 5 p.m.

Central will provide transportation, admission to the event and lunch for everyone riding in the van, as well as coffee and donuts at 8 a.m. before departing. For those interested golf carts are available to rent to use on the grounds (call 1-800-477-0467).

Seats are limited for this free event so don't delay. To reserve your seat please call Catherine Giger at 308-995-3572 or Linda Jensen at 308-995-8601.



Interior Least Tern De-listed as Endangered Species

The interior least tern, the smallest member of the gull family, is one of the species of birds that share the beaches of Lake McConaughy and sand bars of the Platte River system in Nebraska with hikers, campers and outdoor enthusiasts. Since 1985, it had been threatened with extinction.

Good news occurred recently when the bird was removed from the federal endangered species list (it remains on Nebraska's list). With continued research and habitat protection, which Central has done at Lake McConaughy and other sites, the interior least tern's future is bright. State laws protective of native wildlife continue to apply to the interior least tern.