

July 2011

## Flooding Is Not A New Problem

By Rick Nelson, General Manager

We've all seen the news about OPPD's Fort Calhoun and NPPD's Cooper Nuclear stations. As of now, Cooper Nuclear is still in operation and following all the correct procedures in this situation. They've faced this kind of flooding in the past and even at this current level.



*Flood waters surrounding Cooper Nuclear Station*

All the news about flooding on the Missouri River made me pause and think back about the history of the flood control system of the Missouri River Basin, which includes seven states and Nebraska.

The theory of "reclamation" started back in 1902 when Congress passed the Reclamation Act of 1902. A group was originally formed under the U.S. Geological Survey (USGS), but became the Bureau of Reclamation in 1923. The idea was the irrigation would "reclaim arid lands for human use" since most of the area west of the 98th meridian, or a line that extends straight north and south just east of Grand Island Nebraska, was considered not suitable for growing crops. Settlers wanted a way to irrigate the crops on the lands that they settle.

In 1824, the Supreme Court ruled that since navigation involved commerce, the federal government had to control navigable waterways, thus Congress authorized the US Army Corps of Engi-

neers (Corps) to aid in the navigation of the nation's waterways. The Missouri River was considered a "Graveyard of Steamboats" because of the hazards in the river primarily from trees and branches. In 1838 the Corps began operations to clear this debris from the river.

Since the Reclamation Act was passed in 1902, there were nine projects authorized between 1903 and 1906, primarily in the Dakotas and Montana. Meanwhile the Corps was trying to find a way to provide navigation between Sioux City and St. Louis. They originally wanted to provide a channel that was 200 feet wide and 6 feet deep.

Congress then authorized the Corps to do a study of the Basin. It became known as the "308" report. During this study time between 1933 and 1940 the Corps constructed the Fort Peck Dam on the Missouri River in Montana for the purpose of providing navigation below Sioux City. In 1939, as part of the Reclamation Act, Reclamation was authorized to come up with a plan for the Missouri River Basin. This plan became known as the Sloan Plan, after the author William Glen Sloan.

After major flooding in 1943, hitting Omaha hard, Congress wanted the Corps to review their previous plan. This resulted in a 13-page report submitted to Congress in 1944 known as the Pick Plan after Colonel Lewis Pick, the Corp's Missouri Basin Division engineer in Omaha. The plan included some 1,500 miles of levees and 23 dams.

I know I'm leaving out some detail, but I needed to give you this background in order to get you to the Pick-Sloan Missouri Basin Program that was a part of the Flood Control Act of 1944. The parts I'm leaving out are that the Corps and Reclamation didn't have the same plan for the Basin and couldn't agree on steps to take. The Corps was in charge of providing flood control and navigation. The Bureau of Reclamation was in charge of providing flood control and irrigation. When President Roosevelt threatened to take both of them out of the picture by forming the Missouri Valley Authority, they got together and came up with the joint plan.

The Corps responsibility still is to provide flood control and navigation. The Bureau of Reclamation, which is now called the Western Area Power Administration (WAPA), provides for water to irrigate and drinking water for municipalities. WAPA is also charged with selling and distributing the electric energy derived from 16 hydropower generators on the dams, which amounts to in about 2,500 megawatts of generation transmitted over 11,000 miles of transmission line to over 400 utilities. One megawatt (MW) is enough electricity for 800 to 1000 homes.

These customers of WAPA power are non-profit organizations and include public power districts. Nebraska Public Power District gets an allocation of this power. It is a low cost source of energy.

About this same time, farmers in Nebraska were in need of irrigation for their crops. The Nebraska Legislature authorized the formation of public power districts and irrigation districts in 1933. These districts built a series of reservoirs, dams and canals to deliver water to farms in Nebraska. The districts also installed hydroelectric genera-

tors to provide electric power. Several of these districts merged resulting in the formation of Nebraska Public Power District in 1970. NPPD operated three hydropower projects in the state. They are the North Platte hydro, Kearney hydro, and the Spencer hydro.

The North Platte hydro started operation in 1937 and produces 24 MWs. The Kearney hydro started operation in 1921 producing 1,490 KW's and the Spencer hydro on the Niobrara River began operation in 1927, producing 3,000 KW's. This includes many miles of canals and diversion dams. Central Nebraska Public Power and Irrigation District (Central) also controls several hydros and diversion dams along the North Platte and South Platte rivers. This is done in conjunction with NPPD due to the different requirements of irrigators, the Gerald Gentleman power station and other canals and diversion dams.

I hope this gives you a little bit of history about the Missouri River Basin and some of the trade-offs that are involved in managing the river's flow. There are many competing interests that must be balanced. Flood control is big among them, but there is also power, irrigation, recreation, and barge traffic – all with demands that are not always in agreement.



*About half of the Fort Calhoun Nuclear Station plant site, about 20 miles north of Omaha, is flooded by the Missouri River.*

# NRECA Washington, D.C. Youth Tour



Kory Phillips, Custer's Youth Tour Delegate, spent June 10-16 in Washington, D.C. with eleven other students from across Rural Nebraska. In addition to taking in all the sights of the nation's capital, 1,500 students from rural areas across the U.S. convened for National Youth Day to learn from public figures and other inspirational speakers. They were given a presentation on the history of rural electrification from the Father of Rural Electrification himself, Senator George Norris, played by former Nebraska state senator Dave Landis.

The NREA Youth Tour has been a joint effort of local rural electric providers, the NREA, and the National Rural Electric Cooperative Association for more than 50 years. Custer has been participating since 1960, by sponsoring one or two students most years.

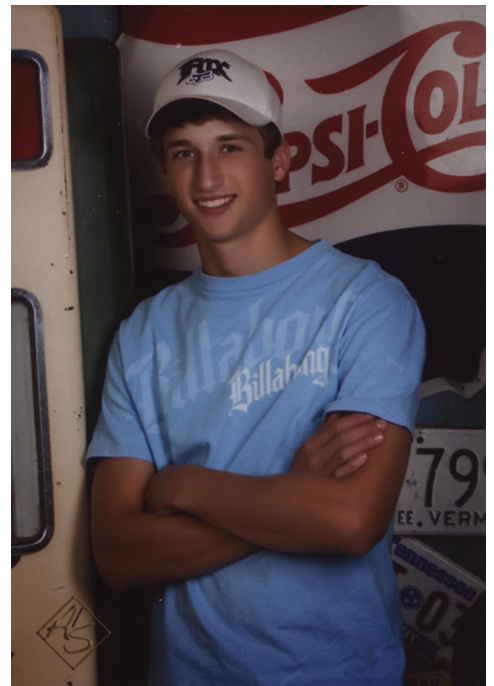
## Scholarship Winner Announced

Caleb Mulligan received the 2011 Custer District Utility Line Scholarship. He is the son of Mark and Judy Mulligan, who live south of Valentine and also own a small acreage north of Halsey. Caleb has two older brothers. He graduated from Valentine High School in 2010.

Caleb has always worked after school and summers at a variety of jobs on ranches and with a wheat harvest crew. This summer he is learning about the equipment that goes in a substation and helping construct the buildings that house the technical equipment in the substations.

In his spare time his favorite things to do are ride and race his dirt bike. He also enjoys hunting and fishing and spending time at the lake on a jet ski. A Husker fan, Caleb enjoys going to football games in Lincoln.

"This scholarship gives me a super opportunity to achieve my goals and I am really looking forward to college this fall."



# Salsa Sloppy Joes Recipe

**Prep/Total Time:** 20 min.  
**Makes:** 8 Servings

## What You Need

1 pound ground beef  
 1-1/3 cups salsa  
 1 can (10-3/4 ounces)  
 condensed tomato soup,  
 undiluted  
 1 tablespoon brown sugar  
 8 hamburger buns, split



## Make It

In a large skillet, cook beef over medium heat until no longer pink; drain. Stir in the salsa, soup and brown sugar. Cover and simmer for 10 minutes or until heated through. Spoon 1/2 cup onto each bun. Yield: 8 servings.

## Custer Power This

This is an easy recipe to double. Manager Nelson made this for his family at home. They really enjoyed it!

## Nutrition Facts

1 sandwich equals 271 calories	8 g fat (3 g saturated fat)	35 mg cholesterol
620 mg sodium	32 g carbohydrate	1 g fiber
15 g protein		

Willie Wiredhand recommends this recipe to take along on a camp out, just heat-up and serve.



Let the camping begin and Happy 4th of July!

# CUSTER CURRENTS

Newsletter of the  
**CUSTER PUBLIC POWER  
 DISTRICT**

**Broken Bow, NE - Phone 872-2451**  
**www.custerpower.com**

Serving Custer, Loup, Blaine, Thomas,  
 Hooker, McPherson, Logan and parts of  
 Sherman, Garfield, Brown, Cherry,  
 Lincoln, and Dawson Counties

## *Officers & Directors*

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 Brad Bartak, Merna.....Vice President  
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 Brad Howard, Litchfield.....Treasurer  
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## *Staff*

Rick Nelson.....General Manager  
 Tom Knott.....Director of Operations  
 and Loss Control  
 Cheryl Taylor.....Director of Finance and  
 Administration

## *Board Meetings*

The regular monthly meeting of the Custer Public Power District Board of Directors is on the last Thursday of each month, beginning at 10:00 a.m. in the main office in Broken Bow on Hwy. 2.

An agenda for each regular meeting of the board is available for public inspection during business hours.

In the event of matters of an emergency nature or conflicts with other meeting dates, the Board of Directors will set changes. Any change in the monthly meeting date will be posted in the legal notice at the main headquarters building at Broken Bow and at each of the District's area service centers located in Callaway, Sargent, Stapleton and Thedford, Nebraska.