

With conservation comes flood control



Lakeshore homes on Lake Shetek flooded in July 2018. Over the past couple of decades in Murray County, more frequent and heavier rains combined with drainage outlet failures and reduced storage capacity have contributed to more frequent flooding.

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Murray County
Emergency
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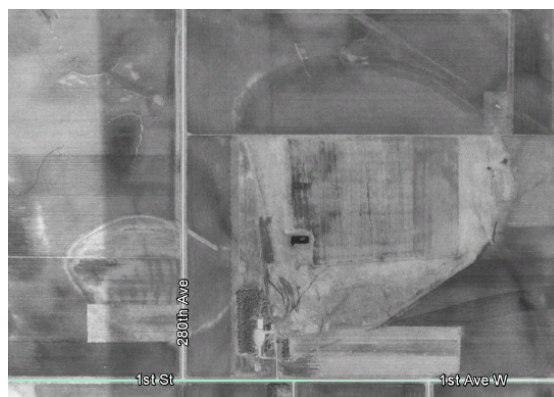
Murray County projects in the Des Moines River headwaters include easements with water-storage benefits; address pollution issues through permanent cover



FULDA — A wetland restoration underway near the Talcot Lake State Wildlife Management Area east of Fulda is designed to alleviate flooding and curb pollution through easements that replace 210 acres of farmland and pasture with permanent cover and habitat.

The County Ditch 30 project will add to the matrix of conservation acres in southeast Murray County, addressing water quantity issues plus nutrient and sediment transport issues in Talcot Lake and the greater Des Moines River Watershed.

The headwaters of the West Fork Des Moines River Watershed include some of southwestern Minnesota's priority lake resources. Lake



An aerial view shows the Murray County Ditch 30 restoration area when it was farmed in 1991. Seven parcels, six easements and four landowners completed the easement acquisition process in 2018.

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Sarah, Lake Talcot and the Lake Shetek complex are among the area's favorite angling and wildlife lakes.

More frequent and heavier rains combined with drainage outlet failures and reduced storage capacity in the last couple of decades have contributed to more frequent

flooding in Murray County. Projects that include a water storage component are part of ongoing conservation planning and implementation efforts.

The Upper West Fork Des Moines River Watershed and Murray County's Lake Shetek experienced damaging floods in 2014 and 2018.

So far, 2019 has been another benchmark year for damaging flooding.

The 2018 floods followed a wet spring capped by heavy rains in late June, and a torrential rain on July 3. Large parts of Murray, Lyon and Redwood counties were affected. Houses on Lake Shetek were inundated. Nearly 100 people were evacuated from Currie and the Lake Shetek area.

Flooding also caused widespread damage to roads and drainage infrastructure, and inundated property throughout much of Murray County. At Lake Shetek in particular, runoff produced heavy flows upstream. The downstream outlet was backed up by Beaver Creek, which joins the Des Moines River just below the outlet, and was running extremely high.

An area in northwest Murray County known as the “Great Oasis” is the headwaters for both the Des Moines River and Beaver Creek.

Once covered in shallow lakes and wetlands, the Great Oasis had been drained for farmland. In 2018, water from this drainage flow area was essentially filling Lake Shetek from both ends. The Des Moines River flows into the Lake Shetek inlet. Beaver Creek meets the Des Moines River at the lake Shetek outlet.

The 2018 flooding prompted Lake Shetek area residents to re-form an association, the Shetek Area Lakes Association, so they could seek remedies to hydrologic issues



A view of the County Ditch 30 restoration area in 2015 shows seven separate parcels involved in the easement complex. Contributed Photo

that have become more evident in the past couple of decades. Residents consulted the Murray Soil & Water Conservation District (SWCD). Maps were made outlining areas for storage and easement opportunities.

One way to slow some of the flow is through storage projects such as wetland restorations. In the Great Oasis area, ongoing efforts have focused on restoring a couple of the historic shallow lakebeds. Using a combination of funding sources, some land has been retired through purchases and easements.

Completely restoring larger storage areas usually requires multiple landowners to agree. In these cases, it might take decades to piece a restoration together. Further complications might include the current drainage structure, roads, and — in the case of easements — title difficulties.

Efforts to restore the area

near Talcot Lake date to 2008, when two wetland restoration easements for most of a wetland basin were secured through the Conservation Reserve Enhancement Program (CREP II). Efforts to pull together the remaining pieces were helped by changes in land ownership, commodity prices and easement reimbursement rates — plus the 2014 flooding.

When the remaining easements with three landowners were contracted during the 2015 Reinvest in Minnesota (RIM) wetland program, the footprint of the wetland was complete.

In the end, seven separate parcels on six different easements involving four different landowners completed the easement acquisition process that ended in 2018.

“We had to work at it a little, but some landowner changes and conditions helped us out,” said Program Manager Craig

Christensen of Murray SWCD.

Some of the delays related to securing a clear title and meeting federal regulations.

Scott Santjer is the Minnesota Board of Water and Soil Resources (BWSR) conservation engineer technician overseeing construction implementation. He elaborated on other elements of the restoration, which included protecting a township road that cut through part of the restored wetland.

“We plan to build in outlets to maintain neighboring landowner drainage, and do some reroutes and tile breaks,” Santjer said.

The work, estimated to cost \$140,000, will continue — outletting drainage tile lines that flowed into the wetlands from agricultural land, breaking tile within the restored area, and constructing outlets to manage restored water levels. A total 6,740 feet of 12- and 16-inch county drain tile will be abandoned.

Water storage is just one benefit of the restoration, which is expected to attract nesting pheasants and improve deer habitat. Water quality benefits come from reduced turbidity and nutrient propagation in lakes and streams.

Next on the horizon for the Lake Shetek area: A native shoreland planting cost-share incentive available to lakeshore homeowners, which is meant to help stabilize the shoreline.