### Harlan Farm Continued from page 1

# St. Croix River-

## Mississippi River

Photo courtesy of the United States Geological Survey

To Lake Pepin

Prescott,

As temperatures rise and heavy rainfall events increase in scale and frequency, Minnesota's river systems continue to experience ever greater levels of stream and river bank erosion due to higher average flows. Downstream from Kandiyohi County, the flow of the Minnesota River has doubled within the span of two generations and now accounts for 80% of the total sediment reaching the Mississippi.

rutting it up like this screws it up for next year."

Regarding planting, he said, rains have made unusable no less than 80 acres of formerly tenable farmland. In Kandiyohi County as a whole, that figure stands at 16,000 acres, and between 11-12 million acres nationally.

Along with damage to farmland and delayed planting and harvesting schedules, increased moisture also ramps up the cost of corn processing.

With cold, moist temperatures and heavy rainfall preventing corn product from drying, farmers will need to shoulder the expensive propane fuel costs necessary for reducing moisture to levels low enough for storage. These expenses - avoidable under dry conditions - can average between 55-60 cents per bushel.

At this rate, Madsen said, "we're going to roll the dice and wait a little longer and hope that we get some (naturight now, anyway. And if you're going to blow 50-60 cents a bushel off the top ... "

When asked where there is profitability in today's agricultural market, Madsen said those areas are "few and far between."

"The ag industry is in crisis. It's the first time in my farming career where everydoing thing we're

- livestock, corn and beans – is below the curve. Underwater,

you could say. [...] could say... We've been over our break even price

on milk over the last three months, but it's going to take the next three years to make up for those three-to-four years of being under the curve."

Looking toward the future Madsen hopes his grandchildren can carry the family farm, into future generations, though current trends present cause

able for the grandkids, but I don't know what the future is going to be. Frankly, I'm very, very concerned for the operations as we look ahead given the uncertainty and the challenges in terms of profitability.'

#### **Climate science projections** and downstream impacts

According to John Linc Stine, who recently retired as time. I've now seen dozens. [...] We used to think of them as a really big rainfall, but now we think of them as a nice medium-sized storm."

Rainfall that exceeds three inches of rain in one storm has increased 65% since 2000. This trend is indicative of a change in general temperature patterns, Stine said, adding that with warmer seasonal-

These extended and increased flows result in stream and river bank erosion, and a subsequent increase in sediment load.

"We have seen a doubling of the average flow in the Minnesota River. [...] This is a direct result of several factors: heavier, more intense rainfalls, higher evapotranspiration from crops and soils, and increased subsurface drainage

> All of which leads high flow events that are the cause of a lot of heavy sedimentation in our river systems."

Downstream, he said, this means the Minnesota River is now accounting for 80% of sediment reaching the Mississippi.

"We're now seeing the need to dredge the upper reaches of Lake Pepin to allow for commercial and recreational navigation. This is unique in our frastructure."

tation."

Stine warns that altered hydrology, which allows for rain to pass from land and roads and into rivers, can result in failure of infrastructure if not properly managed.

In 2016, he said, extreme high flows in Duluth resulted in failure of large sections of the city's storm drainage systems.

"It's really about these intense storms that are being more efficiently delivered. With an increasing volume and rate of delivery and the age of our infrastructure, those of us in my generation and the generation that came to develop a lot of these systems have a real responsibility to look at the future of our communities and their well-being because of these increasingly intense rain fall events.

'To be more durable and resilient, we must plan for changing rainfall patterns as we replace and repair this in-

The ag industry is in crisis. It's the first time in my farm- to these prolonged ing career where everything we're doing – livestock, corn and beans – is below the curve. Underwater, you

the longest serving commissioner of the Minnesota Pollution Control Agency and is the current executive director of non-profit environmental "Freshwater," organization statistics indicate that Minnesota's rainfall patterns are "dramatically altered."

"When I was young, we

ity comes an increased likelihood of greater thunderstorms throughout south central/eastern plains and, specifically, agricultural zones. Winters too, are warming,

sota winters on record occurring within the last 20 years. The result of these rising

with 10 of the warmest Mine-

from farm fields.

ral) drying, because it's just too expensive to dry it at this point. Even with good yields, tire lives on this farm. Hopethere's no profitability in corn

for concern.

"My parents spent their enfully that opportunity is avail-

used to talk about 100-year rainfall events. I thought when I was young that I might get to see one of those in my life-

temperatures and greater rain history. Lake Pepin is filling in events, Stine said, is the destabilization of rivers via longer and higher average flows.

10 times the average historic rate [...] and the Minnesota River is driving this sedimen-

## Ridgewater campus food pantries support students in need

#### **Ridgewater College** News release

Not knowing where your next meal might come from can be stressful, scary, and humbling. It also makes it difficult for students to focus on studies, goals and dreams.

"For years, we have known that there were Ridgewater students suffering from food insecurity," explained Trevor Johnson, Ridgewater biology instructor, Willmar campus. Employees would remind students about meals available at Campus Ministries across the street from Ridgewater's Willmar campus or employees on both campuses would refer students to the Kandiyohi, McLeod or Meeker county food shelves. "But we had to do more," Johnson added.

The Ridgewater Foundation joined forces with employees to help launch two on-campus food pantries in 2019, one in the Willmar Fine Arts building room 103 next to the fitness center and one outside Hutchinson campus room 153

Phi Theta Kappa Honor Society students were also instrumental in creating the college resource in Hutchinson.

Interested students on the Willmar campus can visit its Food Pantry for a pre-packaged bag of items any time Mondays through Wednesdays from 9 a.m.- noon.

Hutchinson campus students can visit its Food Pantry as needed, taking when they need and leaving food for others when they can.

The college community has been very supportive in keeping the food pantry full," explained Jill Rezac, English/communications/ economics instructor, as well as Hutchinson campus PTK advisor. "We are now reaching out to the local community for support."

Most needed items include:

- Cereal/oatmeal
- Breakfast bars
- Snacks/snack bars
- Canned fruit/fruit cups Apple sauce
- Fresh fruit
- Peanut butter
- Rice/pasta
- Boxed meals
- Canned/cup soups Ramen noodles
- Jelly
- Spaghetti sauce
- Microwave meals
- Macaroni and cheese
- Toiletries

Organizers are thankful for community efforts in regional counties and do not want to hamper those community services. They simply want to invite people to support these complementary efforts with the student convenience of on-campus generosity.

Interested donors can drop off donations at the Foundation Office on either campus. By working with the Foundation, donors can also receive receipts for their 100% tax deductible donations.

A generous new twist that just recently developed is a partnership with Hutchinson Health. Registered dietician Emma Schalow is leading collective efforts to be a regular sponsor for the Hutchinson campus pantry one week a month. She also plans to provide nutritional information to students and other donors to the pantry.

"It has been wonderful to see the Ridgewater College community... support this program to help students in need through monetary and food donations," said Angie Hatlestad, human services/psychology instructor.

For more information, contact the Ridgewater Foundation at 320-222-6095 or 320-222-6098.



