Water Quality Report by Deb Eisenbeisz

I'm, Deb Eisenbeisz, the Water Quality Coordinator. I organize volunteers and schedule the summer water sampling on Lake Poinsett, Albert, and Dry Lake, and also work with the state DANR Volunteer Monitoring Program. This is our third season sampling lake water.

I'm proud of our dedicated volunteer teams. We work towards protecting the lake by testing its water 74 times over a four-month period.

- Tammie Jorgensen and I drive around the lake with 7 shoreline stops to collect microystins and nutrient samples.
- Mark Kelsey & Cala Hogue boat out to the center of Poinsett to collect nutrient samples and measure water clarity.
- Kim and Shon Ward boat out to the center of Lake Albert, also sampling for nutrients and measuring water clarity.
- Tonya & Shannon Grismer drive around Poinsett taking E.coli bacteria samples from the State Park's Swim Beach, Prestrudes, Saaranen, Sorenson, and Lake Albert's public access.

The samples are shipped to the state lab in Pierre for analysis and recording. Our data is posted online.

WE SAMPLE FOR 9 parameters.
Excessive amounts of any of these will negatively affect recreation and the scenic value of our lakes.

- Chlorophyll-a – This test reveals how much algae is in lake water.
- E.coli - is a bacteria from human & animal waste - such as failing septic and sewage systems, Farm runoff
- Microcystins – is a toxin found in harmful blue-green algae blooms.
- Phosphorus, Nitrogen, Nitrates/Nitrites, and Ammonia – are in fertilizers for crops and lawns, in human and animal waste, in yard waste like fall leaves and grass clippings. All can fuel disgusting harmful algae blooms.

HOW IS OUR DATA USED?
The South Dakota DANR Volunteer Monitoring Program oversees our work. They include the data from our samples into the *South Dakota Integrated Report for Water Quality Assessment*. It is one of the most comprehensive assessments of water quality data for South Dakota's lakes, rivers, and streams.
Every two years the Federal Clean Water Act requires each state to compiled data into an intensive Integrated Report. Based on these reports the Environmental Protection Agency or EPA is mandated along with our state to **monitor and identify** lake, rivers, and streams not meeting water quality standards. Water bodies are classified as Impaired or Unimpaired.

In the 2022 Integrated Report Lake Poinsett is listed as impaired. We are not meeting WQ standards for E.coli, Chlorophyll-a and Mercury in Fish Tissue.
Lake Albert is listed as impaired for Chlorophyll-a and Mercury in Fish Tissue. The next Integrated Report is due 2024. If our lake fails consecutive years the state must develop a plan to reduce or eliminate the issue. Our sampling data helps determine if our lakes meet or fail federal water quality standards. If our lake is listed as impaired for a number of years the state is to develop a plan to reduce the issue.

How is Our WQ Testing FUNDED?
The EPA Clean Water Act Grant funds are dispersed to each State. SD DANR Watershed Protection Program distributes these funds to approved Water Quality Projects. We are under the NONPOINT SOURCE INFORMATION AND EDUCATION PROJECT which covers lab work and shipping costs.

This summer's Water Quality data will be out in the Fall. We sample into September and then wait for the state to post their analysis. I have copies of the 2022 data summary report. Our state environmental scientist provided the summaries. Definitions of the 9 parameters are included.

Our Water Quality Reports are online on LPA's Website.