

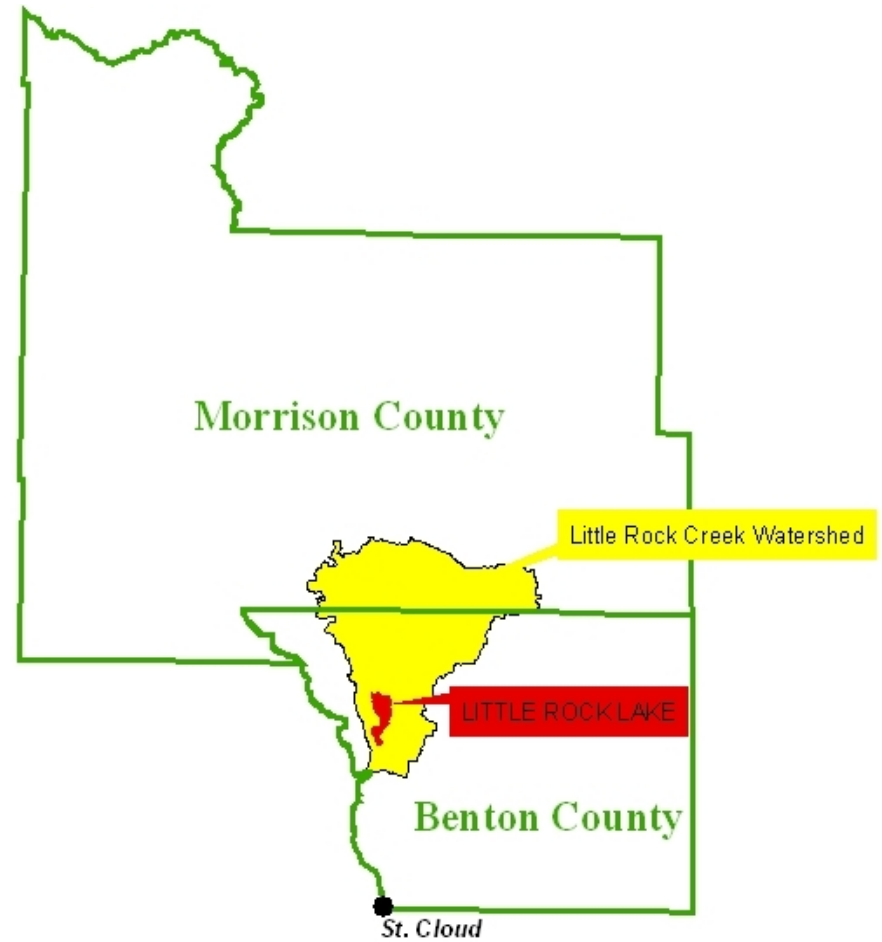
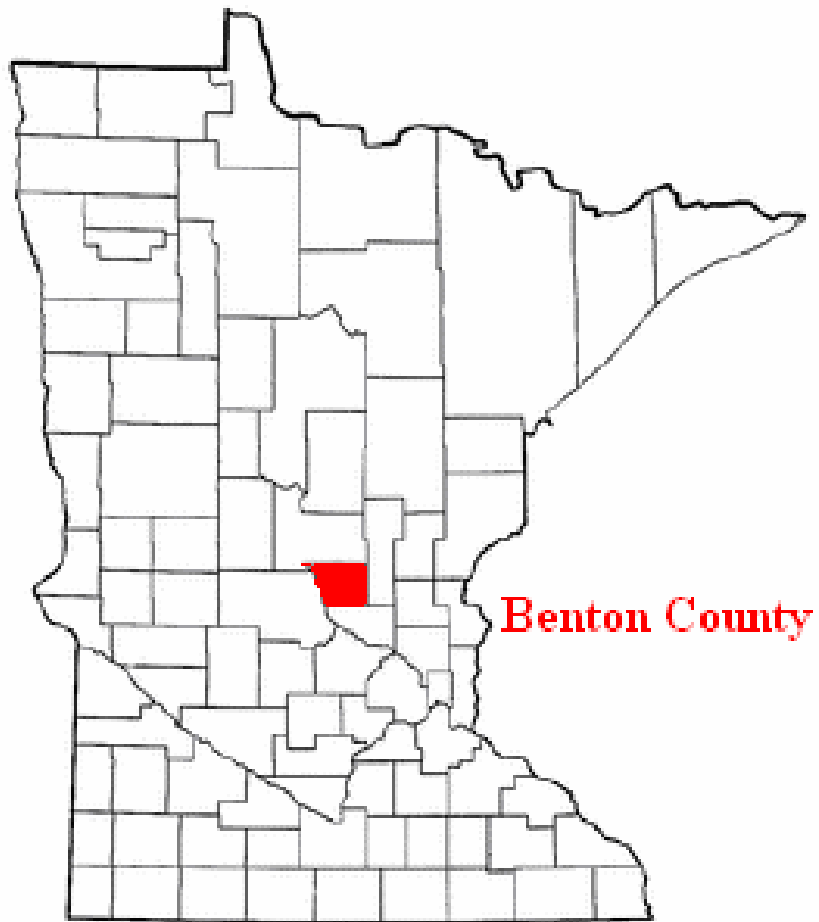
The Local Level Perspective: Hazardous Algae Blooms

Annie Felix

Benton Soil and Water Conservation District



BENTON COUNTY, MN



LITTLE ROCK LAKE

- Large (~1,270 acres)
- Shallow
mean depth = 8 feet
max depth = 19 feet
- Drains to Mississippi River
- Very large
~68,000 acre
agriculturally dominated
watershed
- Supports large
population of walleye &
black crappie



2007 Recipe for Disaster

2006: Benton declared drought county

Winter 2006-2007: Low snowfall

Spring 2007: Little rainfall, windy spring weather re-suspending sediments

Summer 2007: Severe drought, many days above 90 degrees F, low water levels, and high nutrient loads

2007 Bloom Timeline

Started around end of June

Ended late August

THE PUBLIC CARES!

Lake property owners

Area residents

Anglers

Swimmers

Commuters on Hwy 10

REACTION & RESPONSES TIMELINE

Citizen

Agency

Local Government

Citizen email excerpt from July 7, 2007

Lake property owners “had come up from the cities to stay at their cabin” over the 4th of July “and that they had to drive back to Anoka because they could not take the smell.”

“floating dead carp as well as beaver in front of our cabin”

“bay was covered with a heavy, green mud like substance that appeared to be about 2 inches thick for the first week or so”

“Around the 5th of July the smells were so terrible that I could not imagine anyone with respiratory problems being able to breathe”

JULY 12 & 23 MPCA CONDUCTED AN ALGAL TOXIN INVESTIGATION

MPCA staff collected algae samples

Algae toxin levels in lake were found to be a moderate to high human health risk according to World Health Organization standards

MPCA report recommended that Little Rock Lake be included on the 2008 draft Impaired Water bodies list

MPCA AIR QUALITY MONITORING

Hydrogen sulfide monitoring period: last week
of July - Mid September

Data collected never exceed air quality standard

July 26th

- County Board members met with State Representative Dan Severson to discuss the algae problem in Little Rock Lake.
- Representative Severson briefed County Board members on his efforts to address with state agencies the possibility of immediate health risks.
- The County Board pledged to work with state and local agencies, the Lake Association and lake residents to identify both short-term and long-term remedies to the water quality problems in Little Rock Lake.

July 27, 2007

Little Rock Lake featured on Kare 11 News

Excerpt:

Little Rock Lake in Benton County is covered with a blue-green algae that is both dangerous and disgusting.

"Some people maybe would call it rotten eggs, I'd call it sewage," says Jerry Christenson about the algae's smell.

Christenson, like other home owners, says this year has been especially bad for the algae.

"We normally have our grandchildren swim in this lake, but I wouldn't this year," he said.

Citizen email excerpt from July 27, 2007

- I feel air quality has reached a critical stage. I wore a face mask, but I had a bad headache within 15 minutes of being near the water. The headache disappeared once I was in my car and back in St. Cloud.
- The Bay where we have our cabin is filled with floating dead fish all of which are now decaying and adding more fertilizer to the lake. There is no way a land owner can get them out of the bay. This is an emergency and it will need special equipment to remove and haul the fish away.
- I also saw what I thought was a dead bird or two but everything is covered by the thick green scum. The neighbor said there was more than one dead beaver that floated by their house.

Friday, July 27, 2007

BENTON COUNTY NEWS RELEASE

“Benton Beach Park Swimming Beach Closed”

Posted blue-green algae warning at other County parks on Little Rock Lake

Recommended that people avoid contact with the lake water and keep pets
away from the lake

Advised lake residents with respiratory conditions to avoid exposures to
hydrogen sulfide

July 30, 2007

Watab Twp hosted special informational meeting with
officials from:

Minnesota Pollution Control Agency
DNR

Benton County Soil and Water Conservation District

State Representative Dan Severson

Senator Michele Fischbach

Representative Larry Haws

Benton County Commissioner Joe Wollak

Chelle Benson - Benton County Department of Development

Jim McDermott - Benton County Emergency Management

Watab Township Board members, and others in attendance

Post-bloom citizen concerns

Fish community gone/dead

Failing septic systems

Property values

POST-BLOOM FISH SURVEY CONDUCTED SEPT. 10-11

Results showed that the lake continued to support viable populations of most if not all species present prior to the summerkill event.

The presence of intolerant species suggests that they found refuge from the algae bloom in the deeper or less impacted areas of the lake. The wide connection Little Rock Lake has with the Mississippi River should also provide for migration of fish into to lake facilitating the rehabilitation of any species adversely affected by the summerkill.

LESSONS LEARNED

Be pro-active!

- Monitor lake for potential algae blooms
- Keep in contact with MPCA regarding potential algae bloom
- Immediately communicate to the public –
Create awareness, health precautions,
monitoring

Immediately notify the public using:

City Watch

Local radio stations

Print media

Website

Direct mailings

Lake Association