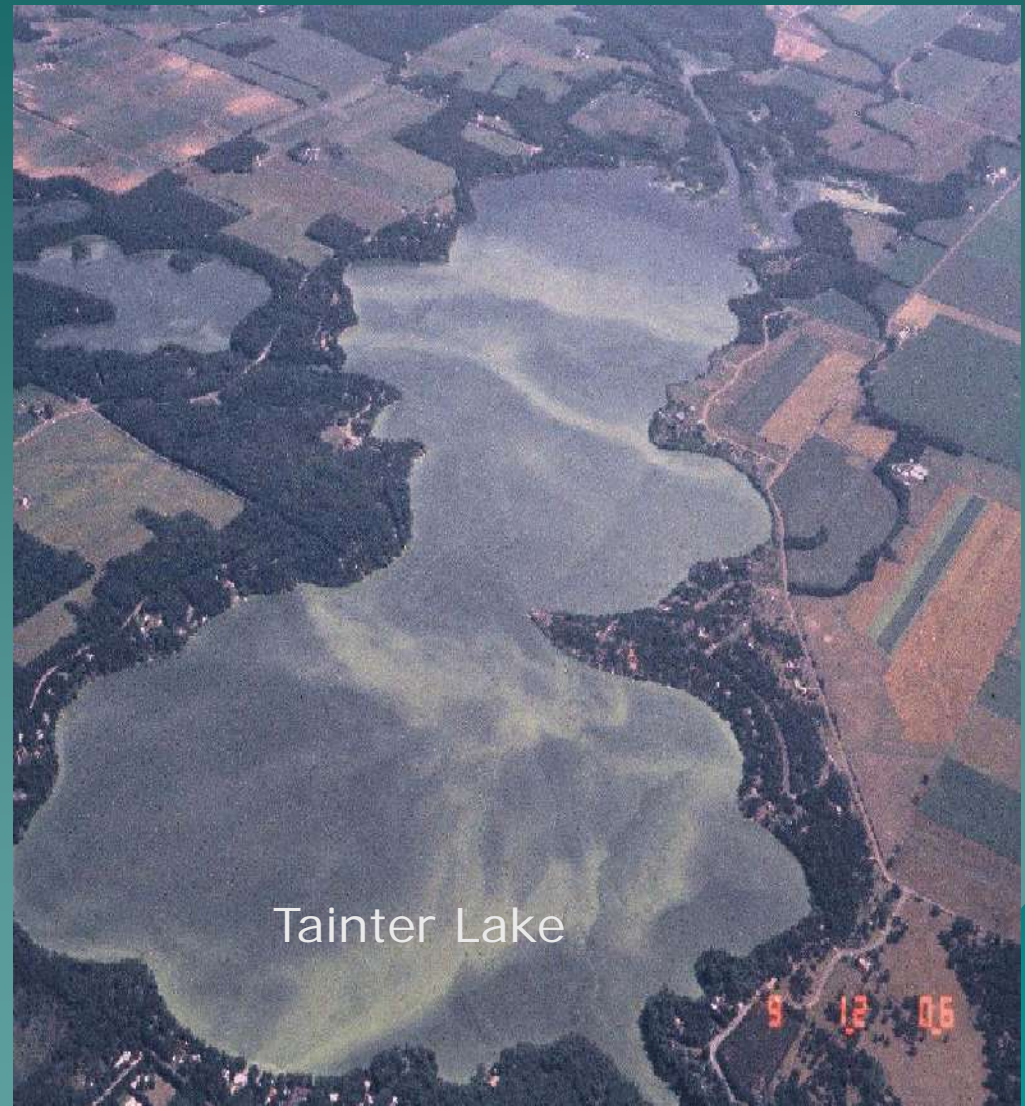


Many Red Cedar
River Basin
lakes develop
dense blooms of
blue green algae
every summer.



Entire lakes
can be
covered with
the most
dense
accumulations
in wind blown
bays.



The algae problem extends down the Red Cedar River due to algae washing out of Lake Menomin.





Another problem is heavy plant growth and low dissolved oxygen in streams & lakes, like this reach of the Red Cedar River near Barron.



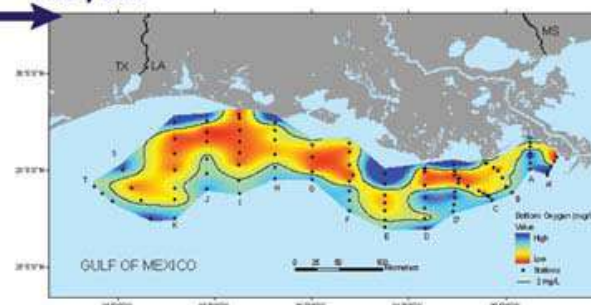
The problem of too many plants extends downstream to the Mississippi River including Spring Lake in Pool 5

<http://proteus.pca.state.mn.us/water/tmdl/tmdl-lakepepin.html>

Mississippi River Basin and Gulf of Mexico Hypoxia



Hypoxic Zone in
Northern Gulf of Mexico
July 2007



From Rabalais and others: <http://www.gulfhypoxia.net/shelfwide07>



U.S. Department of the Interior
U.S. Geological Survey

Ultimately nutrients from the Midwest contribute to water quality problems in the Gulf of Mexico http://toxics.usgs.gov/hypoxia/hypoxic_zone.html

Algal toxins can cause skin and respiratory problems

<http://www.pca.state.mn.us/water/clmp-toxicalgae.html>

<http://dnr.wi.gov/lakes/bluegreenalgae/>



From Lake Menomin



Sign at local lakes

Can be lethal if large enough quantities are swallowed. Dogs are particularly at risk.

Are the fish from algae laden water safe to eat?

- ◆ Some blue-green algal toxins have been shown to accumulate in the tissues of fish and shellfish, particularly in the viscera (liver, kidney, etc.). Whether or not the accumulation levels are sufficient to pose a risk to humans is uncertain, although it would depend in part on the levels of consumption and on the severity of the blue-green algae blooms where the fish or shellfish were caught or collected.
- ◆ The World Health Organization advises that people who choose to eat fish taken from water where a blue-green algae bloom is present eat such fish in moderation and avoid eating the guts of the fish, where accumulation of toxins may be greatest. Also, take care to not cut into organs when filleting the fish and rinse the fillets with clean water to remove any liquids from the guts or organs before freezing or cooking.
- ◆ <http://dnr.wi.gov/lakes/bluegreenalgae/#consumption>



- ◆ Economic Impacts: Objectionable water clarity and smell reduces lakefront property values. Other economic impacts in the case of Lake Menomin included replacement of the lake beach with a waterpark and the permanent cancelation of the Tinman Triathlon due unsafe swimming conditions.



- ◆ Threat to Aquatic Life: If algae populations die quickly, oxygen depletion can cause fish kills, as occurred in Prairie Lake in Barron Co, August 2007



- ◆ Threat to aquatic life: Studies in Northern WI have shown that excessive plant growth is linked to deformity in frogs.

<http://www.newscientist.com/article/dn12687-frog-deformities-linked-to-farm-pollution.html>