

Listening to the Lake Radio Program
Stormwater Runoff
9/7/05, KUMD Radio, Duluth, MN
7:33 minutes

(Opening music)

Welcome to Listening to the Lake. I'm Marie Zhuikov with UMD's Minnesota Sea Grant Program.

Hurricane Katrina's devastation on the Gulf Coast is much in the news these days. What some people don't realize is that in the early 1970s, Duluth had major flooding, causing then President Nixon to declare the city a federal disaster area. We'll learn more about the Duluth flood and what's being done to minimize the impacts of stormwater runoff in this show. But first, here's what the lake had to say yesterday morning by Leif Erickson Park.

(Enter lake sounds)

The water temperature on the western end of Lake Superior averages 48 degrees. Wednesday's nearshore marine forecast calls for a southwest wind at 5 to 10 knots, increasing to 10 to 15 knots. Partly cloudy in the morning, then clearing. Waves 1 to 3 feet. Tonight the southwest wind will decrease to 5 to 10 knots. Partly cloudy with waves 1 to 3 feet, subsiding to 2 feet or less after midnight.

(Fade out lake sounds)

Even though the scope of Duluth's flooding disaster was nowhere near that of Hurricane Katrina, it caused millions of dollars in damage that took years to repair. In 1972, three major storms sent millions of gallons of water pouring down Duluth's hillsides, washing out roads, yards, and homes, and flooding areas of downtown with water and rubble.

Unlike in the Gulf, where the source of the water was the sea or a lake, in Duluth the problem was backwards, with water coming down from the top of the hill. It was a wake-up call that more needed to be done with the city's storm sewer system and to lessen the amount of hard surfaces (like roads, sidewalks, parking lots) that allow water to runoff so fast instead of sinking down into the soil.

Cindy Hagley, environmental quality extension educator with Minnesota Sea Grant, describes the environmental problems caused by the every day form of water runoff.

"...That means that you've got water moving really fast and its flowed over surfaces like parking lots before it goes into streams. There's some things that we worry about with that. One is that that water picks up oil and other types of chemical contaminants that might be on a parking lot where there's been cars and trucks and things parked. It also picks up nutrients like nitrogen and phosphorus, which can of course cause algae blooms when they get to the water. And pathogens, if there's any disease-causing organisms that

are on the land or on the roads...those will also get washed in. So those are some of the things that we really worry about."

"Probably the most important one in many places is dirt. Because anywhere that water goes, if it picks up dirt and brings that with it, that dirt or sediment will flow into the streams and cause all kinds of problems for the aquatic life in the streams. Anywhere that dirt or sediment goes, nutrients go also."

Hagley said that parking lots can also warm up water, which can be hard on fish like trout, once the runoff reaches streams.

Experts estimate that the average Duluth home can produce as much as 1,400 gallons of water runoff during a typical rainstorm. Multiply that by the number of homes in the city, and the surfaces covered by roads and parking lots, and you've got a lot of runoff. Several groups are combating the problem with the goal of minimizing the impacts to Lake Superior.

They've joined together to form the Regional Stormwater Protection Team. Twenty-one groups are involved in the team, including the cities of Duluth, Superior, Hermantown, and Proctor, and universities. The team formed in 2002 as a result of the Clean Water Act.

Marnie Lonsdale, project coordinator for the City of Duluth stormwater utility, describes the reason for the team.

"We got together and we formed a team because we thought we're a small area - we're a small urban area - and we need a way to more effectively and more professionally get out the message and get people involved in protecting our surface waters, our natural waters, of the area."

"Really our message is...we have the opportunity to protect things before they go bad. I think right now there's a lesson in what happens when you don't protect with the kind of tragic results of the hurricane down in New Orleans where there were protection measures that could have been improved and were not done because they weren't a priority and the result was kind of a major disaster."

"And we want to remind people that what they do at home, basically their curb is the edge of Lake Superior and whatever happens at home, in your business, your property ultimately will affect the lake."

With the help of grants, the team held a watershed festival this year, hosted booths at events, workshops for construction companies, and launched a media campaign that features TV and radio ads.

[Audio from radio ad.]

Another effort by the city and the Western Lake Superior Sanitary District is construction of 2 underground sewer system storage tanks designed to hold large volumes of water during storm events so that overflows don't occur. One at 52nd Avenue East is now online and another one will be built at 60th Avenue East. An open storage area in Gary New Duluth is also online.

This spring residents collected the equivalent of 2 and a half large dump trucks of sediment through a spring sediment sweep, sponsored by the City and the South St. Louis County Soil and Watershed District. Residents were asked to sweep the gravel on the road near their property and bring it into holding areas throughout the city. This kept it from being deposited into the lake.

Marnie Lonsdale explains plans for the sediment sweep project:

"This fall we're going to extend the project and we are going to ask residents in areas to adopt a storm drain. Basically the other issue in the fall is the storm drains get covered in leaves and branches. One thing, that blocks up the storm drain, we have to clean them in the spring, and secondly it also means that when the thaw comes in the spring of course the drains are blocked over and we get flooding in the streets. So we're looking for people to – we have over 9,000 storm drains – we're looking for people to adopt 500 of them this year."

Other things homeowners can do to help protect Lake Superior water quality are to:

- wash vehicles at the car wash or on your lawn
- clean up after your pets
- use rain barrels to collect water for gardening or watering your lawn
- plant a rain garden
- compost yard waste or take it to the WLSSD collection site, and
- minimize the use of fertilizer and herbicides.

You can find more information through the Lake Superior Streams Web Site at www.lakesuperiorstreams.org or by calling the Regional Stormwater Protection Team at 529-3281.

I'm Marie Zhuikov for Listening to the Lake from Minnesota Sea Grant at UMD. This wraps up our series of programs. We hope you've enjoyed them.