

## **Ripple Effect # 67**

### **Measuring Our Waters**

When we think of “measuring” our waters here in the Red River Basin, we usually think of quantity. We keep track of levels of flows preceding floods and track these levels with a hawk’s eye during flood events.

But just as important to us here in the Red River Basin is the quality of the water in our rivers and streams. Measuring that quality does not often make it into the spotlight despite its critically important role in helping us identify impaired waters before they become lost to us as a resource.

For this reason, measuring water quality was one of the main topics at the combined meeting of the Red River Basin Commission board with water managers from around the Basin held in Fargo on September 6. Attendees heard updates on water quality monitoring efforts in each of the three major jurisdictions of the Red River Basin, Manitoba, Minnesota and North Dakota.

Manitoba has the longest record of monitoring. Manitoba Water Stewardship has been collecting samples from the Red River Basin for 40 years, with monthly measurements and periodic intensive research that measures up to 100 variables.

Minnesota’s efforts to measure the quality of its waters is carried out primarily by the Minnesota Pollution Control Agency (MPCA). The MPCA estimates that their sampling is capturing 90% of the loading of Minnesota’s streams into the Red River. In recent years, the MPCA has been assisted by the River Watch program, which engages high school students in the work of carrying out sampling in area streams.

In North Dakota, the Department of Health takes the lead in monitoring the quality of the state’s waters. The department uses the US Department of Agriculture’s gauge stations for its work. These stations include two super gauges, one at Fargo (since 2003) and a second at Grand Forks (begun in 2007), which measure water quality continuously, along with flow and temperature. Adding to these efforts are monitoring programs set up by several Red River Basin water resource districts and/or watersheds to monitor nutrient levels and other problem elements in their jurisdictions’ waters.

All three of the major jurisdictions—Manitoba, Minnesota and North Dakota—are looking for ways to improve their monitoring, most importantly, to add coverage and to correlate the measuring and analysis more fully among the three jurisdictions.

The benchmark for water quality in the Red River Basin is the health of Lake Winnipeg, the body of water that receives the waters of this massive basin and whose waters are suffering from growing accumulations of blue-green algae. According to measurements by Manitoba Water Stewardship, the last 30 years have significantly increased

phosphorus levels in the lake, the leading nutrient feeding blue-green algae, with at least half of this phosphorous coming from outside Manitoba.

This fact points to many of our streams and rivers—but which ones? And how much is each holding of this—and numerous other—harmful elements? With no single large source of such harmful elements in the Red River Basin, only, literally, millions of small “nonpoint” sources, monitoring our Basin’s waters for quality is imperative.

Measuring the quality of our waters in the Red River Basin may not have much visibility. But much work is being done. And more needs doing in order to ensure the health of our rivers and streams and a living Lake Winnipeg.

Until the next Ripple Effect,

The Red River Basin Commission (RRBC)

The RRBC is a grassroots organization that is a chartered not-for-profit corporation under the provisions of Manitoba, North Dakota, Minnesota, and South Dakota law. Our offices in Moorhead, MN and Winnipeg, MB can be reached at 218-291-0422 and 204-982-7254, or you can check out our website at [www.redriverbasincommission.org](http://www.redriverbasincommission.org).