

Water Monitoring a Top Priority
More information is needed to protect Iowans
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On a hot summer day last year, I put a canoe into tiny Cedar Creek in Marion County and floated down to the confluence with the Des Moines River and on to Eddyville. On one stretch, a dozen cabins lined the banks. Parents and kids of all ages were in the water swimming, splashing, jumping off ropes, and generally having a good time.

I had been watching the water beneath my paddle; it was opaque with sediment. Slippery brown clumps of something floated on top. But heat conquered and, keeping my head up, I also got in the water.

Later, I looked in Iowa's most recent bi-annual report to the U.S. Environmental Protection Agency for 1994-1995 to see how clean that section of river was when the state last checked. Unfortunately, as it does for most of Iowa's waters, the report says "no routine water quality monitoring."

As I tried to decipher the report, I noticed that just downstream in the stretch below Ottumwa, there is also "no routine monitoring." Yet, there was this chilling notation: "On June 8, 1995, 3 CSOs (combined sewer overflows) were observed discharging to the river after a 2-3 inch rain. Fecal matter was observed being discharged directly into the river."

Current monitoring

Unbelievable as it seems, in Iowa's current surface water monitoring network, only 27 sites are monitored in any one year. Yet, Iowa has approximately 26,000 miles of year-round streams and rivers, 45,000 miles of seasonal streams, 400 publicly owned lakes, and thousands of wetlands and ponds.

Our current surface water monitoring system has serious flaws:

All of the surface water monitoring sites, are on major rivers, none on smaller rivers or tributaries.

Public lakes, reservoirs, ponds, and wetlands are not included in the monitoring network.

There is no regular monitoring of the Missouri or Mississippi Rivers.

Little information is gathered in vulnerable areas, such as near ag drainage wells.

Very little is known about the presence of waterborne organisms that cause disease through drinking water or swimming.

We have virtually no data on the biological health of our waters, that is, the ability of our waters to fully support aquatic and streamside life.

Pesticides are regularly monitored at only seven surface water sites in the entire state. Groundwater monitoring is only slightly better, with 90 wells used to monitor the water in the six regional aquifers that underlie Iowa's 35.8 million acres. Each year, 45 to 90 of these wells are tested. This is of particular concern because groundwater is a source of drinking water for more than 70 percent of Iowans.

Financial commitment

Iowa spends only \$123,000 yearly on our surface water monitoring network. All funding comes from the U.S. Environmental Protection Agency; none comes from state funds. For groundwater monitoring, the state spends \$120,000, with half funded by the U.S. Geological Survey.

In contrast, most other states have committed greater financial resources to their monitoring programs. Nebraska, with many fewer people, spends \$650,000 on surface and groundwater monitoring; the state pays 15 percent. In Illinois, the state commits 75 percent of its own dollars (\$2.6 million) toward a \$3.5 million monitoring network.

In 1987, Iowa's landmark Groundwater Protection Act required planning for a comprehensive groundwater monitoring network. The plan, with funding options ranging from \$500,000-\$1 million per year, was completed in 1989 - and never funded.

Comprehensive monitoring needed

Iowa needs a comprehensive, long-term water monitoring strategy that includes both surface water and groundwater monitoring. We must begin to fill in the vast information gaps in order to protect our water and people. Only through a statewide network, carried out over time, can we identify areas of concern and act to correct them.

Such a network is one of the priorities in the Iowa Water Quality Action Plan, recently published by the Council. Iowans overwhelmingly agree with our decision to make this a priority: According to a recent public opinion survey, 65 percent think we need to do more monitoring of the condition of our water; 80 percent think more research is needed on ways to protect it.

To remedy our lack of information, four types of monitoring are needed:

1. Long-term, statewide monitoring to define the overall condition and trends of surface water bodies and groundwater aquifers, called "ambient" monitoring;
2. Evaluation of water quality from specific water supplies (both public and private), called "point-of-use" monitoring;
3. Monitoring to identify and delineate contaminated sites, called "point-of-contamination"

monitoring; and

4. Problem assessment and research monitoring to determine the causes of specific impairments in a water body or aquifer.

Iowa's current monitoring efforts include some aspects of each of these types of monitoring. However, even with the addition of some project-specific monitoring, the data is so spotty that we have little idea of the overall quality of our water and whether it is improving or getting worse.

Legislation

In his budget recommendation for fiscal year 1999, Governor Terry Branstad asked for a one-time expenditure of \$300,000 for monitoring. In addition, Senator Patty Judge and Senator Tom Vilsack each introduced legislation in the 1998 session to establish a comprehensive statewide monitoring network funded at \$1 million per year.

The bills would add a significant number of monitoring sites on rivers and streams; add lakes, reservoirs, ponds, and wetlands; sample and analyze common pesticides and pesticide transformation products (formed as pesticides break down in the environment); and incorporate biological monitoring. The groundwater sections include increased research and long-term monitoring for trend analysis in the six major aquifers.

Iowa's citizens and policy-makers are increasingly aware of the need to better monitor our water resources. Even if this much-needed monitoring network is not established this year, policy-makers, the Council, and its partners will have laid the groundwork for future efforts.

Good water is one of Iowa's most precious and fragile resources. Iowans enjoy and depend on clean water for their lives and livelihoods - and they expect good protections. We are long overdue for a well-planned monitoring program. I want to know those kids swimming in the Des Moines River are safe and healthy - like all Iowa kids ought to be.

The Iowa Environmental Council is an alliance of 55 diverse organizations and many individuals working with all Iowans to protect our natural environment. The Council seeks a sustainable future through shaping public policy, research and education, coalition-building, and advocacy.