



Electro-fishing to monitor fish species and populations in a stream.

***Water quality is essential to public health, the natural environment and economic development in North Dakota.***

The Watershed Management Program is part of the North Dakota Department of Environmental Quality's Division of Water Quality. We work to protect and improve water quality for all uses. Programs within the division enforce state and federal environmental laws through permitting, inspection, sampling, analytical services and monitoring activities.

The Division of Water Quality employs nearly 40 staff members in its five programs.

- ◆ Watershed Management
- ◆ Groundwater Protection
- ◆ North Dakota Pollutant Discharge Elimination (NDPDES) Permits
- ◆ Spill Investigation
- ◆ Special Projects

## Watershed Management Program

The Watershed Management Program is primarily responsible for monitoring and assessing water quality in streams, rivers, lakes and wetlands across North Dakota. This is done in cooperation with many local, state and federal partners. The program's 10 staff members address water quality concerns by developing Total Maximum Daily Loads (TMDLs), maintaining an ambient monitoring network, conducting lake water quality assessments, conducting biological monitoring and providing technical assistance for watershed projects. Additionally, staff members implement initiatives such as the Nutrient Reduction Strategy, the Basin Water Quality Management Framework and information/education programs.

### TMDL/Watershed Liaison Program

The TMDL/Watershed Liaison Program was created to develop TMDLs and make support easier to access for groups interested in sponsoring TMDLs and those currently involved with a watershed project. A TMDL is the amount of a particular pollutant that a stream, lake, estuary or other waterbody can "handle" without violating state water quality standards. Of course, this is a greatly simplified explanation! Once a TMDL is established, responsibilities for reducing pollution among point sources (pipes) and diffuse sources are assigned. Diffuse sources include, but are not limited to, runoff (urban, agricultural, forestry, etc.), leaking underground storage tanks, unconfined aquifers, septic systems, stream channel alteration and damage to riparian areas.

### Nonpoint Source Pollution (NPS) Management Program

The North Dakota NPS Management Program mission is to protect or restore the chemical, physical, and biological integrity of the waters of the state by promoting locally sponsored, incentive based, voluntary programs where those waters are threatened or impaired due to NPS pollution. Our goal for the NPS Management Program is to initiate a balanced program focused on the restoration and maintenance of the beneficial uses of the state's water resources (i.e., streams, rivers, lakes, reservoirs, wetlands, aquifers) impaired by NPS pollution.

### Nutrient Reduction Strategy

Nutrient pollution is caused by the overabundance of phosphorus and nitrogen in the aquatic environment. Excessive nitrogen and phosphorus in water can cause health problems in people, fish and animals, and damage our lakes, rivers, reservoirs, streams and wetlands. Excessive phosphorus and nitrogen may also result in increased costs to treat water for human consumption from surface water supplies.

### Basin Water Quality Management Framework

The purpose of this framework is to guide water quality management, planning and implementation through a targeted basin management approach. This basin water quality management planning process will promote more coordinated data and information collection and sharing, increased availability of technical and financial resources, and more focused and effective water quality management activities.

# About the Watershed Management Program

The primary responsibility of the program is assessment and restoration or protection of our state's waters.

## This DOES include:

- Monitoring streams, rivers, wetlands and lakes.
- Publishing a list of impaired waters.
- Writing TMDLs
- Providing technical assistance to develop watershed restoration or protection projects.

## This DOES NOT include:

- Requiring implementation of control measures.
- Regulating agricultural runoff.
- Requiring or issuing permits.

Education is key to maintaining healthy lakes, rivers and streams.



# A Closer Look...

## River Water Quality Assessment

- 32 ambient water quality sites monitored
- Red River Basin Ecological Assessment
- National Rivers and Streams Assessment

## Lake Water Quality Assessment

- 15 lakes annually
- Lake Sakakawea
- Devils Lake
- National Lakes Assessment

## Total Maximum Daily Loads (TMDLs)

- Biannual publication of a list of impaired waters
- 82 US Environmental Protection Agency approved TMDLs

## Biological Monitoring

- Fish
- Macroinvertebrates
- Physical habitat assessments
- Multimetric index of biotic integrity

## Nonpoint Source Pollution Management

- Grants to state and local entities
- 40-45 projects funded annually
- Includes watershed assessments and TMDL projects
- Funding for implementation of best management practices

**"We can't all live upstream."**

