

# **NONPOINT SOURCE POLLUTION**

## **The Water Quality Act of 1987**

The Clean Water Act has its roots in the Federal Water Pollution Control Act of 1972. Amendments in 1977 made the act more successful at cleaning up point sources of pollution, like toxic effluent from industrial and sewage treatment plants. In 1987 the Clean Water Act was amended to include section 319, the Nonpoint Source Pollution Program, to provide grant money to states. Nonpoint source pollution, is the result of runoff that carries natural and human-made pollutants into rivers, lakes, wetlands, and even groundwater. The 319 grant program, used extensively by conservation districts, provides financial assistance for water quality project implementation, education, monitoring, and demonstration of new technology.

## **TMDL's**

Another amendment to the Clean Water Act, section 303(d), addresses remaining waters that do not meet the act's goal of "fishable, swimmable waters." Section 303(d) requires states to identify impaired waters (referred to as the state's 303d list) and to develop total maximum daily loads, TMDL's, for them, with oversight from the Environmental Protection Agency. In Montana, the Department of Environmental Quality has this responsibility. TMDLs, simply put, are limits describing the amount of each pollutant a stream segment or water body can receive without violating water quality standards. They take into account the pollution from both point and nonpoint sources, though nonpoint source pollution by its very nature tends to be difficult to assess in this "loading" format. Nonpoint sources tend to make up a large part of the total pollution equation in Montana. In these situations across the nation, TMDLs often take the form of a watershed management plan to address how progress will be made toward water quality improvement. This plan essentially completes the TMDL requirement for a particular water body. To be effective, however, such a plan must be developed and implemented locally. DEQ and others look to conservation districts as the most logical entity to undertake these planning and implementation efforts.

## **Administration**

DEQ is the state's lead agency in charge of implementing state and federal resource protection laws. The agency has both regulatory and non-regulatory functions, and administers the provisions of the Federal Clean Water Act. Conservation districts are the designated NPS control agencies for nonfederal lands; the U.S. Forest Service (USFS) and Bureau of Land Management (BLM) have been designated the NPS control agencies for public lands within their jurisdictions.

## **Montana's Agricultural NPS Management Problems**

Nationwide, agriculture is considered a major source of nonpoint source pollutants such as sediment, nutrients, and pesticides. In Montana sediments and nutrients have been identified as the state's primary agricultural NPS pollutants. In most cases surface water and groundwater pollution by nutrients, pesticides, and sediment has been associated with highly erosive soils.

### **Sediment**

Sediment is the soil washed or blown from unprotected soil surfaces into lakes and streams. It may cause loss of reservoir storage capacity, destroy fish habitat, and deposit silt in headgates and diversions. Sediment also provides a vehicle for the transport of pesticides into surface water.

### **Nutrients**

Nutrient leaching depends on soil type, but excessive use of nitrogen fertilizer or manure disposal can affect both surface water and groundwater. Surface water problems include algal blooms and toxicity from nitrites, nitrates, and ammonia. Groundwater problems generally include toxicity from nitrites.

### **Pesticides**

Pesticide contamination of surface water is due to pesticide runoff during storms. Groundwater contamination occurs when pesticides percolate down, generally on light soils.

### **Salinity**

Salinization of shallow groundwater has occurred over much of the Northern Great Plains. Agriculturally-caused saline seep has claimed 300,000 acres in Montana. The Montana Salinity Control Association (MSCA) was formed to identify saline seep problems and implement reclamation practices.

### **Role of the Conservation Districts**

Conservation districts administer the Natural Streambed and Land Preservation Act (see Appendix E), a regulatory mechanism that requires obtaining a permit before engaging in any activity in or near a perennial stream.

Conservation districts have the authority under Title 76, Chapter 15, Part 7, *Montana Codes Annotated*, to formulate regulations governing the use of lands within the district. The regulations are embodied in an ordinance. Upon voter approval and adoption by the district board, the ordinance has the force and effect of law.

The Food Security Act of 1985 initiated a large redirection of monetary and human resources toward soil conservation and indirectly toward agricultural NPS pollution.

Conservation districts can provide guidance and assistance in implementation of selected BMPs by district cooperators, sponsor projects on selected watersheds, and cooperate in water quality education programs, workshops, and tours. The

Conservation Districts Bureau will assist districts with any program or project in NPS pollution.

### **Financial Assistance**

Programs and agencies providing financial assistance for NPS projects are listed in this section.

#### Federal Programs

- Clean Water Act--Section 319
- Agricultural Stabilization Program
- Conservation Reserve Program
- Forestry Incentives Program
- Rural Clean Water Program
- Water Bank Program
- Great Plains Conservation Program
- Resource Conservation and Development
- Public Law 566--Watershed
- Abandoned Mine Lands

#### Other Federal Agencies

- Farmers Home Administration
- Bureau of Reclamation
- Environmental Protection Agency

#### State

- Renewable Resource Development Program (RRD)
- Water Development Program
- Conservation District Project Grant Program--House Bill 223
- Reclamation and Development Grants Program
- River Reclamation Fund
- Rangeland Improvement Loan Program
- Water Quality Bureau--NPS Assessment and Planning Funds

For more information on NPS programs and grants, contact:

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