Water Resources Management in Minnesota

Watershed Management

Issue

The DNR defines a watershed as "the total land area from which water drains into a single lake or stream." Minnesota has 81 major watersheds and 8 major river basins. Management at the watershed level is important because:

> Watersheds allow us to evaluate the quality and quantity of our water resources geographically. Only by knowing our local watershed and the system of watersheds in which it resides can we begin to understand why and where small changes can have huge impacts on our state's water (DNR).

Management Roles

In Minnesota, the federal government and state agencies play an important role, but local units of government have much of the responsibility for managing watersheds. At the federal level, US Army Corps of Engineers (Corps), Environmental Protection Agency (EPA), Federal Emergency Management Agency (FEMA), Department of Agriculture (USDA), and Department of the Interior (DOI) are involved. At the state level, the Board of Water and Soil Resources (BWSR), Department of Natural Resources (DNR), Pollution Control Agency (PCA), and Department of Agriculture (MDA) are the primary agencies involved. A wide range of local entities are also involved, including the Metropolitan Council (Met Council), counties, cities, townships, watershed districts, watershed management organizations (WMOs), soil and water conservation districts (SWCDs), and joint powers organizations. In Minnesota, regulations are imposed through statutes, rules, ordinances, and permits and state agencies directly regulate activities or delegate regulatory responsibility to local entities.

Federal Government

US Army Corps of Engineers. The St. Paul District of the Corps operates 13 locks and dams on 244 miles of the Upper Mississippi River from Minneapolis to Guttenberg, Iowa; and manages a number of other dams and reservoirs throughout Minnesota. It issues permits for projects that affect navigable waters of the US and is involved in flood control and erosion control studies and projects in Minnesota. The Corps also has the responsibility for administering Section 404 of the Clean Water Act permitting process which requires that anyone interested in depositing dredged fill material into "waters of the US", including wetlands, must receive authorization for such activities. Activities in wetlands for which permits may be required include:

- Placement of fill material
- Ditching activities when the excavated material is sidecast
- Levee and dike construction
- Mechanized land clearing
- Land leveling
- Most road construction

- Dam construction

Environmental Protection Agency. The EPA administers the Clean Water Act (CWA) which requires Minnesota to assess waters for pollutants, identify those that are impaired, and take action for clean-up. Under the CWA, the EPA is responsible for distributing funds to state and local governmental units to address nonpoint source pollution. Much of this work is delegated to the PCA at the state level.

Federal Emergency Management Agency. FEMA administers the National Flood Insurance Management Program and the National Dam Safety Program. These programs provide grants supporting the DNR Floodplain Management Program and Dam Safety Program.

Department of Agriculture. The Natural Resources Conservation Service (NRCS), within the USDA, works with private landowners and managers to conserve soil, water, and other natural resources. They provide funding and technical assistance to landowners who implement conservation and best management practices. Locally based staff work with landowners and in partnership with SWCDs in the state.

Department of the Interior. Within the DOI, two agencies, the US Geological Survey (USGS) and the US Fish and Wildlife Service (USFWS), play a role in water management in Minnesota. The USGS collects, monitors, and analyzes data about natural resources, including stream flow, water quality, and other water resource issues. The USFWS manages national wildlife refuges and fishery operations, enforces wildlife laws, protects endangered species, and conserves and restores wildlife habitat such as wetlands. Both USGS and USFWS operate at the state level with employees in state offices.

State Agencies

Board of Water and Soil Resources. BWSR is governed by a 17-member Governor-appointed board of state and local officials, and citizens. There are 3 from watershed districts or WMOs, 3 from SWCDs, 3 from counties, 4 from state agencies (PCA, DNR, MDH, and MDA), 1 from the University of Minnesota Extension Service, and 3 citizen representatives. Around 60 employees work out of 7 field offices around the state. The Executive Director is appointed by the board.

The primary focus of BWSR is soil and water conservation on private land. Statewide, 75% of Minnesota lands are in private ownership and in agricultural regions, the number is closer to 95%. BWSR is responsible for coordinating and supporting the state's local water management entities. There are 46 watershed districts, 23 WMOs in the metro area, 91 SWCDs, and 80 counties with water management responsibilities outside of the metro area. BWSR provides technical and administrative assistance, reviews local water management plans, and distributes grants to support these entities. It also administers the Wetlands Conservation Act by regulating wetlands that are not protected by other state or federal programs. Local governments perform the regulatory functions related to exemptions, noticing, and mitigation.

Through M.S. 103B.101, BWSR is mandated to "coordinate the water and soil resources planning activities of counties, soil and water conservation districts, watershed districts, watershed management organizations, and any other local units of government through its various authorities for approval of local plans, administration

of state grants, and by other means as may be appropriate." BWSR oversees local water management accountability as mandated by M.S. 103B.102 which states that BWSR "shall evaluate performance, financial, and activity information for each local water management entity." BWSR may "reduce, withhold, or redirect grants and other funding if the local water management entity has not corrected deficiencies as prescribed in a notice from the board within one year from the date of the notice."

BWSR helps finance several types of conservation activities and distributes funds to SWCDs for their administration and operations. It also helps finance best management practices carried out by landowners, conservation easements, feedlot improvements, local administration of the Wetland Conservation Act, and county development and implementation of water management plans.

Department of Natural Resources. Through M.S. 103G, DNR regulates any activities that affect the course, current, or cross-section of "public waters" which are most of the state's lakes and rivers as well as some streams and wetlands. It also regulates the use of surface and ground water by managing a water supply and permitting program. It operates dams and manages stream gauges that assess water levels and stream flow. It oversees local governments that administer shoreland and floodplain ordinances. Finally, DNR distributes grants to local water management entities for shoreland habitat restoration and flood hazard mitigation.

Pollution Control Agency. PCA has the responsibility for administering federal Clean Water Act programs in Minnesota. Consequently, they are responsible for assessing water quality, identifying impaired waters, and improving water quality. The agency regulates stormwater systems for municipalities and works with counties to regulate feedlots and septic systems. It also provides technical, planning, and financial assistance to local entities that are taking steps to prevent nonpoint source pollution. PCA regulates entities such as municipal sewage treatment facilities and industries that discharge point source pollution and issues permits for runoff from construction and industrial sites.

Department of Agriculture. Through M.S. 18B.39, MDA regulates pesticides and fertilizers and tests surface water and ground water for contamination. It also provides low interest loans to individuals who implement agricultural best management practices to improve water quality.

Department of Health. MDH is not directly involved in the management of watersheds but has responsibilities for clean drinking water. It implements the federal Safe Drinking Water Act, which protects public water supplies.

Governor's Clean Water Cabinet. To coordinate the state agencies' watershed activities, Governor Pawlenty created the Clean Water Cabinet in 2003. The Cabinet is made up of leaders of the state agencies that are involved in clean water issues, including the Commissioners of PCA, MDA, MDH, and DNR, the Executive Director of BWSR, the Chair of the Met Council, and a representative from the Governor's office. The cabinet meets monthly to discuss water issues.

Environmental Quality Board. Historically the EQB has been responsible for coordinating the state agencies responsible for water resource management activities. The board is made up of 9 state agency leaders and 5

citizens appointed by the Governor and confirmed by the Senate. The EQB's statutory duties are (M.S. 103B.151):

- Coordinating public water resource management and regulation activities among the state agencies
- Developing comprehensive long range water resources planning
- Coordinating water planning activities of local, regional, and federal bodies and integrating these plans with state agencies
- Coordinating development of state water policy recommendations and priorities, and recommending a program for funding identified needs
- Administering federal water resources planning with multiagency interests
- Ensuring that ground water quality monitoring and related data is provided and integrated into the Minnesota land management information system
- Coordinating the development and evaluation of water information and education materials and resources
- Coordinating the dissemination of water information and education through existing delivery systems

Local Entities

A wide range of local entities are involved in watershed management. Some of them manage water on a watershed basis, while others manage on a county basis and at times these entities have overlapping responsibilities. Under state law, M.S. 103B.201, all areas of the seven-county metro area must have either a watershed district or a WMO. Overall, watershed districts and WMOs manage water in about 30% of the state. In other parts of the state, both counties and SWCDs have authority and water management duties.

Watershed Districts. Watershed districts have the general purpose, as stated in M.S. 103D.201, "to conserve the natural resources of the state by land use planning, flood control, and other conservation projects by using sound scientific principles for the protection of the public health and welfare and the provident use of the natural resources." Watershed Districts may be established for any of the following purposes:

- To control or alleviate damage from flood waters
- To improve stream channels for drainage, navigation, or any other public purpose
- To reclaim or fill wet and overflowed land
- To provide a water supply for irrigation
- To regulate the flow of streams and conserve the streams' water
- To divert or change all or part of watercourses
- To provide or conserve water supply for domestic, industrial, recreational, agricultural, or other public use
- To regulate the use of streams, ditches, watercourses to dispose of waste
- To repair and modify all or part of drainage systems within a watershed
- To control or alleviate soil erosion and siltation of watercourses or water basins
- To regulate improvements by riparian property owners
- To provide for hydroelectric power generation
- To protect or enhance water quality

- To provide for the protection of ground water and regulate its use to preserve it for beneficial purposes

There are 46 watershed districts in Minnesota that are usually created when a water management problem crosses county or municipal boundaries. They are independent, multi-jurisdictional authorities with their own taxing and rulemaking authority. Watershed districts are created by BWSR in response to petitions from local citizens or officials. Once a district is created, BWSR appoints the first board of managers to run the district, then county commissioners within the district appoint the subsequent board of managers.

Each watershed district has its own mission and priorities. Each year, watershed districts adopt a budget and inform the counties, which in Minnesota administer the property tax. Counties must include the necessary levy on the property tax and send it to the district. In the metro area, somewhere between $30 and $120 of an individual's property tax on a home valued at $200,000 goes to the watershed district. Metro watershed districts do not have a legal limit on what they can budget or levy each year. Outstate districts are limited to a general property tax levy of $250,000 per year plus several special levy authorities limited to a percentage of taxable value within the watershed. Outstate districts can be highly dependent on grants or collaborative work with partners for bigger projects. Watershed districts spend their resources on constructing, maintaining, and implementing projects. Expenditures in 2005 ranged from $7,000 to $5.7 million.

Watershed Management Organizations. WMOs are mandated local units of government (M.S. 103B.201) that exist over the seven-county metro area. A WMO is created by a joint powers agreement among cities within a given watershed and is governed by a board of representatives from each city that are appointed by the city councils. Unlike Watershed Districts, WMOs have no authority to levy property taxes as a source of revenue. The joint powers agreement specifies the process by which, each year WMO board members take a proposed budget to constituent cities for approval. Each city has to approve the proposed budget, include the amount in its own budget, and levy taxes for it. The city then allocates the funds to the WMO. The cities and townships that make up the joint powers organizations are often delegated the responsibility for carrying out projects. Any substantial project of a WMO must be approved by a supermajority of the members. Capital projects are frequently paid for by the city in which they occur, because city councils do not want to tax their residents for projects in another city.

Joint powers organizations operate 20 WMOs, and Carver and Scott counties have assumed water planning responsibilities of WMOs within their jurisdictions. WMOs spent their 2005 funds largely on general administration, regulation, and planning. Expenditures in 2005 ranged from $11,000 to $1.3 million.

Counties & Soil and Water Conservation Districts. Comprehensive Local Water Management (M.S. 103B.301) is a voluntary process available to the 80 non-metropolitan counties. All 80 counties have adopted local water management plans. Counties can delegate water planning to a local unit of government (M.S. 103C) which provides land and water conservation services to private landowners. A local water management plan must (M.S. 103B.311):

- Cover the entire area within a county
- Address water problems in context of watershed units and groundwater systems

- Be based upon principles of sound hydrologic management of water, effective environmental protection, and efficient management
- Be consistent with local water management plans prepared by counties and watershed management organizations wholly or partially within a single watershed unit or ground water system; and
- The local water management plan must specify the period covered by the local management plan and must extend at least five years but no more than ten years from the date the board approves the local water management plan

Contents of the plan must include: an executive summary; an assessment of priority concerns, goals and objectives for priority concerns, and an implementation program for priority concerns; and other water management responsibilities and activities coordinated by the plan.

Plans must be submitted, reviewed, and approved by BWSR in consultation with DNR, PCA, MDA, MDH, and EQB. The water managers with a state-approved, locally adopted plan generally have the authority to compel local units of government to adopt or delegate minimum regulatory controls. They also have the authority to run outreach programs, construct projects, and cooperate with other local units of government. BWSR also administers funds to counties for local water management planning and implementation.

In Minnesota there are 91 SWCDs or Conservation Districts (there is one in each county and a few larger counties have more than one) that are discrete political subdivisions and are administered by an elected board of supervisors. SWCDs have no direct taxing authority and rely entirely on county boards to levy taxes. A county may levy amounts necessary (M.S. 103B.335) to pay the reasonable increased costs to SWCDs of implementing priority programs identified in an approved and adopted local water management plan. SWCDs expenditures in 2005 ranged from $31,000 (Cass County) to $1.5 million (Stearns County).

Municipalities. Cities and townships carry out many important watershed management activities including land use planning, zoning, and stormwater management.

Metropolitan Council. The Met Council manages sewage treatment services and regional water supply issues in the metro area. The council (along with BWSR, DNR, PCA, MDA, MDH, and EQB) reviews the watershed management plans of the metro area local entities. It also provides grants to local entities to carry out their watershed management activities.

Other Local Entities. Other local entities involved in watershed management include lake conservation districts, lake improvement districts, lake associations, nonprofit organizations, and others.

Minnesota's approach to watershed management came about due to water law evolving through time. The layers of management have resulted in a structure that is complex and confusing. Much of the confusion comes from the functional, political, and geographical overlap of water management over every inch of the state.