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## **The Drainage Issue**

This information brief describes the central issues surrounding drainage in Minnesota, including the history and viewpoints of the state's drainage law.

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### **History**

Under Minnesota drainage law (Minn. Stat., chapter 103), a wide variety of people can become involved in a drainage proceeding, including interested landowners, engineers, viewers, county commissioners, watershed district managers, county attorneys and auditors, county and watershed district administrators, and state and federal agency staff. The first comprehensive drainage law in Minnesota was passed in 1887. The law provided for a petition process by landowners, monitoring by county commissioners, and the appointment of viewers to survey, locate, and prepare a report on the proposed drainage ditch. This 100-year-old law established a process that is similar to the approach still used in state drainage law today.

The state Water Resources Board (later becoming part of the present Board of Water and Soil Resources) was established in 1955 and authorized the creation of geographic watershed districts. Once established, watershed districts could take over drainage systems within their boundaries. County boards were required to evaluate the effects on the environment and natural resources when considering a drainage project, and the number of petitioners required to initiate a project was increased. The Commissioner of Natural Resources was required to evaluate environmental and conservation impacts before a drainage project could be established.

Drainage activity over the years has ebbed and flowed based on agricultural prosperity and the drought cycle.<sup>1</sup> The activity peaked in the 1950s, and by the 1960s public policy had shifted toward an emphasis on wetland conservation. People began to question whether drainage was always in the public interest.

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<sup>1</sup> For more information, see the House Research Information Brief "A Brief Historical Background on Wetland Issues and a Chronology of State Laws since 1858," March 1996, by John Helland.

Federal and state law evolved toward acquisition and protection of wetlands. Water bank programs were created to pay landowners not to drain wetlands and to place them under easement. The federal Clean Water Act gave the U.S. Army Corps of Engineers permit control over the discharge of substances into wetlands. The 1985, 1990, and 1996 federal farm bills all contained significant wetland protection measures for landowners planting crops. Minnesota's law has changed during the last three decades by increasing the consideration of environmental measures before a drainage proceeding commences and imposing stricter protection of wetlands. This culminated in the state Wetland Conservation Act of 1991, which established a "no-net-loss" policy for Minnesota's remaining wetlands.

## Activity and Authority

Estimates in 1985 calculated that Minnesota had about five million acres of drained land. About 20 percent of the acreage was drained by tile pipes conveying excess water from farm fields to collection ditches. The remaining 80 percent was drained by 27,000 miles of constructed drainage ditches.

Drainage activity has tapered off in the last two decades. There are fewer individual farmers, and subsequently less interest in opening up new land to drain. The growing realization of public benefits of wetland protection, and accompanying laws, has slowed wetland drainage. Some drainage activity is taking place in the state's growing urbanization areas, including preparing for streets, roads, airports, and residential and industrial development.

General authority for public drainage is vested in the counties under [Minnesota Statutes, chapter 103E](#), although some drainage systems are located in and under the supervision of a watershed district ([Minn. Stat., ch. 103D](#)). Counties and watershed districts are more or less on their own in the interpretation of the drainage law, on a case-by-case basis. This has caused a growing lack of uniformity and standardization of drainage procedures among the counties and watershed districts.

## Issues

Issues and concerns about public drainage have emerged among various interest groups during the 1990s. Some of the groups have expressed an interest in specific changes to the drainage law, or wholesale change to "modernize" it. Recently, the state Board of Water and Soil Resources sponsored a public drainage forum to identify and discuss the issues and concerns. The major concerns seem to be:

- ▶ There is a great need for more education on the drainage law, which is very process oriented, for all interested parties, but especially public officials who change and may be unfamiliar with the law. An information clearinghouse and specialized training program should be provided, and perhaps the University of Minnesota could construct a "drainage model" for demonstration purposes.

- ▶ The buffer strips required to be placed along new drainage systems to prevent erosion need to be maintained and inspected. [Minnesota Statutes, section 103E.021](#), requires the planting of a 16.5-foot-wide permanent grass strip on each bank of a new or improved drainage ditch. However, the law doesn't reach 90 percent of previously existing public drainage ditches or private systems. According to a 1990 study, enforcement of the permanent grass strip is non-existent for the most part.
- ▶ The abandonment of a public drainage ditch is very hard to accomplish. The initiative must come from assessed landowners with a petition signed by at least 51 percent of the property owners assessed for the system. The petition must designate the drainage system proposed to be abandoned, and show that it is not of public benefit and utility. This has proved to be difficult, as existing law is designed to increase drainage, not to reduce it. As a result, separate legislation often is introduced in legislative sessions to abandon a particular system.
- ▶ Repair of an existing drainage ditch sometimes is thought of as an improvement. Repairs are not intended to significantly increase the hydraulic efficiency or capacity of a ditch, or to extend and improve drainage benefits to the new land. If a ditch and repaired channel is maintained on a regular basis, major repair should not be required. However, many ditches are not maintained regularly and petitions for repair, with lesser standards, can cross the line and become an improvement.
- ▶ Some drain tile systems are overwhelming the capacity of existing ditch systems to handle the water flow. Although some counties have conducted ditch inventories, there is a need for a statewide inventory and record keeping system. This would help public officials to have exact information on local drainage and be able to enforce the law better.
- ▶ The viewers' report in a drainage proceeding may be the single most important document; it lists three viewers' facts and findings. Viewers gather information that is used by the county board or watershed district to decide if a drainage project is feasible. It also identifies who will pay for construction and maintenance of the drainage system. The original establishment of benefits on a new system will affect all later repairs related to that system. Environmental criteria is required by [Minnesota Statutes, section 103E.015](#), to be considered in a proposed drainage project. However, the law does not specify when it is to be done, so it often isn't accomplished at the beginning of the project but during the hearing stage. This can make a project more troublesome and costly.

Several ideas flowed from the drainage forum to improve the current situation:

- ▶ There should be a cost/benefit analysis of drainage on a countywide basis, not project-by-project.
- ▶ Best management practices on ditch systems, similar to existing agricultural efforts, would be a good boost to improve overall water quality.
- ▶ New technology in drain tile systems also may assist improved water quality and could be mandated.

- ▶ Perhaps compensation or other incentives should be provided to landowners in order to more easily abandon ditch systems no longer providing a public benefit.
- ▶ Engineers working on a proposed drainage system should immediately review the required environmental criteria to assess the impact after the project is initiated by petition and before it gets to the hearing stage.

Although environmental groups in Minnesota have stressed changes in the drainage law, other groups have recognized the need for certain changes as well. These include the Association of Counties, the Minnesota Association of Watershed Districts, the Minnesota Viewers Association, several attorneys working in the area, and the Minnesota Farm Bureau and Farmers Union. Some opinion at the drainage forum indicated that the law does work if the process in it is followed. Participants at the forum also recognized that drainage activity has unique regional orientation, whether it occurs in the northwest, northeast, southwest, south central, or metropolitan areas of the state.

The challenge to the drainage law is whether the various interest groups can continue to meet and reach some type of consensus on what changes are needed before the 21<sup>st</sup> century.

## **Selected Sources**

More specific information on the drainage law can be found in:

- *Understanding Minnesota Public Drainage Law: An Overview for Decision-makers*, Association of Minnesota Counties, March 1997; and
- *Minnesota Public Drainage Manual*, Department of Natural Resources, September 1991.

Both of these publications are available in the Legislative Reference Library.