

Rep. Wagenius, you requested information on the Minnesota Department of Health's authority to engage in drinking water protection programs and activities. The following sections summarize state and federal laws giving the department authority to regulate drinking water, through instructions to protect the public health, protect bodies of water from pollution that may pose a public health threat, protect drinking water provided through public water systems, and protect groundwater. An additional section provides information you requested on NDMA levels detected in drinking water during a 2008-2009 testing period.

General authority to protect the public health

The commissioner of health is "responsible for the development and maintenance of an organized system of programs and services for protecting, maintaining, and improving the health of the citizens." This authority includes but is not limited to establishing and enforcing "health standards for the protection and the promotion of the public's health such as . . . environmental health hazards" and planning, facilitating, coordinating, providing, and supporting the "organization of services for the prevention and control of illness and disease and the limitation of disabilities resulting therefrom." (Minn. Stat. section 144.05, subd. 1, paras. (b), (c)) This law could authorize the commissioner to establish health standards for unregulated drinking water contaminants, establish stricter health standards than those in federal law, or implement other source water or wellhead protection programs to prevent or lower the risk of contaminants in drinking water, on the ground that contaminated drinking water constitutes an environmental health hazard. Health standards or programs could be applied or implemented to drinking water obtained from surface water and groundwater, as the commissioner finds necessary to protect and promote public health.

General authority to protect water

Two laws dating at least to 1905 give the commissioner of health general authority to protect water from contaminants in order to protect public health. Minnesota Statutes, section 144.12, subd. 1 allows the commissioner to "adopt reasonable rules pursuant to chapter 14 for the preservation of the public health" and to address a number of threats to public health "by rule, by requiring the taking out of licenses or permits, or by other appropriate means. " The commissioner is specifically authorized under this section to adopt rules, require licenses or permits, or use other appropriate means to address "the pollution of streams and other waters . . ." Another statute, Minnesota Statutes, section 144.35, gives the commissioner "general charge of all springs, wells, ponds, and streams so used" as a source of water supply for domestic use and directs the commissioner to "take all necessary and proper steps to preserve the same from such pollution as may endanger the public health." Both statutes use broad language to describe the waters subject to the commissioner's authority--streams and other waters, and springs, wells, ponds, and streams; use of this broad language could be interpreted to allow the commissioner to address pollution in both surface water and groundwater. Additionally, both statutes direct the commissioner to address or prevent water contamination as necessary to protect public health, a purpose which could be used to support a wide range of projects. It is possible that the commissioner would be hesitant to act under the authority of either of these sections because after 1905 some authority over water has been assigned to other state agencies.

Authority to protect drinking water

The commissioner's authority to protect drinking water under the federal and state Safe Drinking Water Acts applies to public water systems only. (A public water system is defined in federal law as a system providing water to the public for human consumption that has at least 15 service connections or regularly serves at least 25 individuals.) Among other responsibilities, the federal SDWA gives MDH authority to oversee and enforce public water system compliance with national primary and secondary drinking water regulations, establish wellhead protection areas for public water systems, operate a source water assessment program, and establish a source water petition program.

1. Wellhead protection areas. The federal SDWA requires states to establish a state program to protect wellhead areas in the state from contaminants. A wellhead protection area means the surface and subsurface area surrounding a water well or wellfield that supplies a public water system; wellhead protection areas are not established for private wells under this program. The SDWA directs the state to determine the extent of the wellhead protection area that is necessary to protect public water system water wells or wellfields from contaminants. (42 U.S.C. section 300h-7)
2. Source water assessment program. States are also required to establish a source water assessment program in which the state (1) establishes boundaries of assessment areas in the state from which a public water system obtains drinking water and (2) within each assessment area and to the extent practical, identifies the origin of any contaminants to determine whether public water systems in the assessment area may be contaminated. A state is required to identify the origins of contaminants listed in the national primary drinking water regulations, to the extent practical. A state may also identify the origins of unregulated contaminants if the state determines unregulated contaminants present a threat to public health. (42 U.S.C. section 300j-13) Note that this is an assessment program which a state would use to evaluate the threat specific contaminants might pose to a public water system. Nothing in the source water assessment program language requires a state to take any specific steps to prevent contaminants in source water from entering the drinking water supply, but the language also does not prevent a state from implementing a program to prevent or lessen the risk of contaminants entering the drinking water supply. If a regulated contaminant enters the drinking water supply and is present at a level higher than allowed under the national primary drinking water regulations, MDH and EPA can implement enforcement actions under separate authority, to bring the public water system into compliance with the regulations.
3. Source water petition program. States are permitted, but not required, to establish a source water petition program, in which an owner or operator of a community water system or a political subdivision asks the state to help develop a voluntary, incentive-based partnership to reduce the level of specific contaminants in drinking water, help establish a partnership to protect source water, and develop strategies for long-term protection of community water system source water. (42 U.S.C. section 300j-14)

It appears that the federal SDWA does not preempt state laws governing drinking water regulation or public water systems. General language allows a state to adopt or enforce a state law regulating drinking water or public water systems, as long as the state law does not exempt a

person or entity from having to comply with the SDWA. The SDWA provides that "[n]othing in this subchapter shall diminish any authority of a State . . . to adopt or enforce any law or regulation respecting drinking water regulations or public water systems, but no such law or regulation shall relieve any person of any requirement under this subchapter." (42 U.S.C. section 300g-3(e)) In addition to this general authority, specific provisions in the SDWA allow a state to adopt or enforce laws that are stricter or more comprehensive than the federal law. For instance, a state can assume primary enforcement responsibility for public water systems as long as, in part, the EPA administrator determines the state "has adopted drinking water regulations that are no less stringent than the national primary drinking water regulations." (42 U.S.C. section 300g-3(a)) Under this authority, a state could regulate contaminants in addition to those listed in the national primary drinking water regulations, or establish limits for contaminants that are stricter than those in federal law. In addition, a state may include in its source water assessment program, contaminants not regulated under the national primary drinking water regulations. (42 U.S.C. section 300j-13(a)(2)(B))

In addition to authority under the SDWA, a separate statute establishes requirements for drinking water standards established by the commissioner. Any safe drinking water standard established or revised by the commissioner must "(1) be based on scientifically acceptable, peer-reviewed information; and (2) include a reasonable margin of safety to adequately protect the health of infants, children, and adults by taking into consideration each of the following health outcomes: reproductive development and function, respiratory function, immunologic suppression or hypersensitization, development of the brain and nervous system, endocrine (hormonal) function, cancer, general infant and child development, and any other important health outcomes identified by the commissioner." (Minn. Stat. section 144.0751) If the commissioner establishes standards for contaminants in drinking water that are stricter than the national primary drinking water regulations, those standards would have to be set at a level that protects the health of infants and children; this level may be stricter than the level that protects the health of adults.

Authority to protect groundwater

State statutes give the commissioner of health specific powers to protect groundwater from contamination, to help ensure that the groundwater may be safely used as a drinking water source. These specific powers include authority to regulate wells and borings, license well contractors and persons performing exploratory borings, and establish health risk limits for substances degrading groundwater.

1. Wells and borings. Minnesota Statutes, chapter 103I gives the commissioner authority to regulate wells and borings, with the purpose of protecting the health and general welfare by providing for the development and protection of the natural resource of groundwater. (Minn. Stat. section 103I.001) The commissioner is required to establish minimum standards for and regulate the drilling, construction, modification, repair, and sealing of wells and borings; regulate well contractors and other professions that construct, repair, or seal wells and borings; and establish a reporting system for wells and borings that are constructed and sealed. For areas of known or suspected contamination, the commissioner must adopt rules to establish standards for the construction, maintenance, sealing, and water quality monitoring of wells. Note that this requires the commissioner to establish standards for water quality monitoring of wells, and not necessarily to

directly engage in water quality monitoring. The commissioner is also required to establish wellhead protection measures for wells serving public water supplies. (Minn. Stat. section 103I.101, subds. 2, 5) The term "wellhead protection measure" is not defined in chapter 103I.

2. Health risk limits. Minnesota Statutes, section 103H.201 permits, but does not require, the commissioner of health to adopt health risk limits for substances degrading groundwater, if groundwater quality monitoring results show that there is a degradation of groundwater. A health risk limit established under this section must be adopted in rule and reviewed at least every four years.

Information on NDMA levels

You also requested information on the extent by which NDMA detected in drinking water during the 2008-2009 testing period exceeded MDH's guidance value of 0.005 micrograms per liter. MDH tested 11 community water systems for NDMA in 2008 and 2009. Nine community water systems showed no concentration of NDMA above the laboratory reporting limit of 0.002 micrograms per liter. Two community water systems reported results above MDH's guidance value. The following list expresses by how much the NDMA detected in Minneapolis and St. Paul community water systems exceeded MDH's guidance value.

Minneapolis 0.009 micrograms/liter: 1.8 times the guidance value
Minneapolis 0.082 micrograms/liter: 16.4 times the guidance value
Minneapolis 0.019 micrograms/liter: 3.8 times the guidance value
Saint Paul 0.007 micrograms/liter: 1.4 times the guidance value
Saint Paul 0.006 micrograms/liter: 1.2 times the guidance value
Saint Paul 0.009 micrograms/liter: 1.8 times the guidance value
Saint Paul 0.02 micrograms/liter: 4 times the guidance value

Please let me know if you need anything further.

Elisabeth