CHAPTER 103H

GROUNDWATER PROTECTION

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GENERAL PROVISIONS

103H.001 DEGRADATION PREVENTION GOAL.

It is the goal of the state that groundwater be maintained in its natural condition, free from any degradation caused by human activities. It is recognized that for some human activities this degradation prevention goal cannot be practicably achieved. However, where prevention is practicable, it is intended that it be achieved. Where it is not currently practicable, the development of methods and technology that will make prevention practicable is encouraged.

History: *1989 c 326 art 1 s 1*

103H.005 DEFINITIONS.

Subdivision 1. **Applicability.** The definitions in this section apply to this chapter.

Subd. 2. **Agricultural chemical.** "Agricultural chemical" means a pesticide, fertilizer, plant amendment, or soil amendment.

Subd. 3. **Health risk limits.** "Health risk limits" means a concentration of a substance or chemical adopted by rule of the commissioner of health that is a potential drinking water contaminant because of a systemic or carcinogenic toxicological result from consumption.

Subd. 4. **Best management practices.** "Best management practices" means practicable voluntary practices that are capable of preventing and minimizing degradation of groundwater, considering economic factors, availability, technical feasibility, implementability, effectiveness, and environmental effects. Best management practices apply to schedules of activities; design and operation standards; restrictions of practices; maintenance procedures; management plans; practices to prevent site releases, spillage, or leaks; application and use of chemicals; drainage from raw material storage; operating procedures; treatment requirements; and other activities causing groundwater degradation.

Subd. 5. **Common detection.** "Common detection" means detection of a pollutant that is not due to misuse or unusual or unique circumstances, but is likely to be the result of normal use of a product or a practice.

Subd. 6. **Degradation.** "Degradation" means changing groundwater from its natural condition by human activities.

Subd. 7. **Fertilizer.** "Fertilizer" has the meaning given in section 18C.005, subdivision 11.

Subd. 8. **Groundwater.** "Groundwater" means groundwater as defined in section 115.01, subdivision 6.

Subd. 9. **Pesticide.** "Pesticide" has the meaning given in section 18B.01, subdivision 18.

Subd. 10. **Plant amendment.** "Plant amendment" has the meaning given in section 18C.005, subdivision 25.

Subd. 11. **Pollutant.** "Pollutant" means a chemical or substance for which a health risk limit has been adopted.

Subd. 12. **Pollution.** "Pollution" means degradation of groundwater by a pollutant.

Subd. 13. **Sensitive area.** "Sensitive area" means a geographic area defined by natural features where there is a significant risk of groundwater degradation from activities conducted at or near the land surface.

Subd. 14. **Soil amendment.** "Soil amendment" has the meaning given in section 18C.005, subdivision 34.

Subd. 15. **Water resource protection requirements.** "Water resource protection requirements" means requirements adopted by rule for one or more pollutants intended to prevent and minimize pollution of groundwater. Water resource protection requirements include design criteria, standards, operation and maintenance procedures, practices to prevent releases, spills, leaks, and incidents, restrictions on use and practices, and treatment requirements.

History: *1989 c 326 art 1 s 2*

PROTECTING SENSITIVE AREAS

103H.101 PROTECTING SENSITIVE AREAS.

Subdivision 1. **Criteria for determining sensitive areas.** The commissioner of natural resources in consultation with the Minnesota Geological Survey, soil and water conservation districts, local water planning authorities, and other interested parties shall develop specific criteria for identifying sensitive groundwater areas and adopt the criteria by rule.

Subd. 2. **Identifying sensitive areas.** The commissioner of natural resources shall, in consultation with the Minnesota Geological Survey, identify the location of sensitive areas by mapping and other appropriate methods after consulting the Minnesota Geological Survey, soil and water conservation districts, and local water planning authorities.

Subd. 3. **Location of sensitive areas; notice.** The commissioner of natural resources shall:

(1) notify political subdivisions with planning or zoning authority and provide maps and other materials that show where sensitive areas are located and indicate the type of risk of groundwater degradation that may occur from activities at or near the surface; and

(2) publish notification of sensitive areas in a newspaper of general circulation in the county where the sensitive areas are located.

Subd. 4. **Information gathering.** The commissioner of natural resources shall coordinate the collection of state and local information to identify sensitive areas. Information must be automated on or accessible to systems developed at the Minnesota Geospatial Information Office.

Subd. 5. **State protection of sensitive areas.** (a) The commissioner of agriculture for pollution resulting from agricultural chemicals and practices and the Pollution Control Agency for other pollutants must consider the type of risk identified under subdivision 3 when adopting best management practices, water resource protection plans, and water resource protection requirements to prevent and minimize groundwater degradation in sensitive areas.

(b) To prevent and minimize groundwater degradation, state agencies must consider the type of risk identified under subdivision 3 when undertaking an activity within a sensitive area.

Subd. 6. **Actions by regulating authorities.** Upon adoption of a comprehensive local water plan as defined in section 103B.101 to 103B.355 or a water management plan under chapter 473 or sections 103B.201 to 103B.255, a regulating authority must take into account the plan and any geological assessments referenced in the plan when taking appropriate actions in sensitive areas.

Subd. 7. **State agencies.** Each state agency that has a program affecting activities that may cause or contribute to groundwater pollution shall identify and develop best management practices to ensure that the program is consistent with and is effective in achieving the goal of section 103H.001. For those activities which may cause or contribute to pollution of groundwater, but are not directly regulated by the state, best management practices shall be promoted through education, support programs, incentives, and other mechanisms.

History: *1989 c 326 art 1 s 3; 1990 c 391 art 10 s 3; 1991 c 345 art 2 s 16; 2009 c 101 art 2 s 107*

103H.105 CONSERVATION EASEMENTS TO PROTECT SENSITIVE AREAS.

(a) Agricultural land within a sensitive area identified in section 103H.101, subdivision 2, or by the Board of Water and Soil Resources and land in or immediately surrounding a sinkhole is marginal agricultural land for purposes of section 103F.515, subdivision 2, and is eligible for the reinvest in Minnesota reserve program under section 103F.515.

(b) Notwithstanding section 103F.515, subdivision 2, paragraph (c), clause (1), and subdivision 4, the Board of Water and Soil Resources may authorize acquisition of hillside easements that restrict hillside pasturing or grazing of livestock.

History: *1989 c 326 art 1 s 4; 1990 c 391 art 10 s 3; 2009 c 176 art 1 s 50; 2025 c 20 s 80*

103H.111 LIABILITY AFTER PROTECTION OF SENSITIVE AREA.

(a) A landowner within a sensitive area, identified under section 103H.101, has a complete defense to liability for degradation of groundwater caused by surface water from the sensitive area recharging groundwater if:

(1) the landowner's portion of the sensitive area is subject to a plan adopted by the soil and water conservation district to protect the groundwater from degradation through surface water recharge;

(2) the projects and practices required by the plan have been implemented and have been certified as having been implemented by the soil and water conservation district;

(3) the projects and practices required by the plan are maintained according to the plan; and

(4) the landowner has not allowed unlawful practices on the property that disrupt the projects and practices required by the plan.

(b) The soil and water conservation district's plan must include appropriate best management practices and water resource protection requirements.

History: *1989 c 326 art 1 s 5*

103H.151 BEST MANAGEMENT PRACTICES.

Subdivision 1. **Development by Pollution Control Agency.** Except as provided in subdivision 2 for agricultural chemicals and practices, the Pollution Control Agency in consultation with local water planning authorities shall develop best management practices for the prevention of groundwater degradation for specific activity categories. The Pollution Control Agency shall contact and solicit comments from affected persons and businesses in developing the best management practices. The Pollution Control Agency must publish notice and also solicit comments and recommendations from state agencies and local governments affected by or regulating the activities.

Subd. 2. **Agricultural chemicals; best management practices.** The commissioner of agriculture, in consultation with local water planning authorities, shall develop best management practices for agricultural chemicals and practices. The commissioner shall give public notice and contact and solicit comment from affected persons and businesses interested in developing the best management practices.

Subd. 3. **Education and promotion.** The commissioners of the Pollution Control Agency and agriculture, in conjunction with the Board of Water and Soil Resources, soil and water conservation districts, and the Minnesota Extension Service, must promote best management practices and provide education about how the use of best management practices will prevent, minimize, reduce, and eliminate the source of groundwater degradation. The promotion and education shall include demonstration projects.

Subd. 4. **Evaluation.** The commissioners of agriculture and the Pollution Control Agency shall, through field audits and other appropriate means, monitor the use and effectiveness of best management practices developed and promoted under this section. The information collected must be submitted to the Environmental Quality Board.

History: *1989 c 326 art 1 s 6; 1995 c 220 s 94; 2019 c 50 art 1 s 30*

GROUNDWATER QUALITY MONITORING

103H.175 GROUNDWATER QUALITY MONITORING.

Subdivision 1. **Submitting monitoring results.** The results of monitoring groundwater quality by state agencies and political subdivisions must be submitted to the Minnesota Geospatial Information Office.

Subd. 2. **Computerized database.** Agencies monitoring groundwater shall maintain computerized databases of the results of groundwater quality monitoring using standards adopted by the Department of Information Technology Services and geospatial technology standards and guidelines published by the Minnesota Geospatial Information Office. The database must be accessible to the Pollution Control Agency, Department of Agriculture, Department of Health, and Department of Natural Resources.

Subd. 3. **Report.** Every five years, the Pollution Control Agency, in cooperation with other agencies participating in the monitoring of water resources, shall provide a draft report on the status of groundwater monitoring to the Environmental Quality Board for review and then to the house of representatives and

senate committees with jurisdiction over the environment, natural resources, and agriculture as part of the report in section 103A.204.

History: *1989 c 326 art 1 s 7; 1991 c 345 art 2 s 17,18; 1994 c 557 s 16; 1999 c 86 art 3 s 11; 2009 c 101 art 2 s 107; 2010 c 392 art 1 s 12; 2012 c 272 s 59; 2013 c 134 s 30; 2013 c 142 art 3 s 36; 2021 c 31 art 2 s 16*

HEALTH RISK LIMITS

103H.201 HEALTH RISK LIMITS.

Subdivision 1. **Procedure.** (a) If groundwater quality monitoring results show that there is a degradation of groundwater, the commissioner of health may promulgate health risk limits under subdivision 2 for substances degrading the groundwater.

(b) Health risk limits shall be determined by two methods depending on their toxicological end point.

(c) For systemic toxicants that are not carcinogens, the adopted health risk limits shall be derived using United States Environmental Protection Agency risk assessment methods using a reference dose, a drinking water equivalent, and a relative source contribution factor.

(d) For toxicants that are known or probable carcinogens, the adopted health risk limits shall be derived from a quantitative estimate of the chemical's carcinogenic potency published by the United States Environmental Protection Agency or determined by the commissioner to have undergone thorough scientific review.

Subd. 2. **Adoption.** (a) Health risk limits shall be adopted by rule.

(b) If the commissioner determines that emergency conditions exist and the public health and welfare require the health risk limits to be adopted as soon as possible, the commissioner shall promulgate the adopted health risk limits notwithstanding chapter 14 but the adopted health risk limits adopted under this paragraph are only effective for one year.

Subd. 3. **Review and revision.** (a) The commissioner shall review each adopted health risk limit at least every four years.

(b) The commissioner may revise health risk limits under subdivision 2.

Subd. 4. **Adopting existing recommended allowable limits.** (a) Notwithstanding and in lieu of subdivision 2, until November 1, 1994, the commissioner may adopt recommended allowable limits, and related toxicological end points, established by the commissioner on or before February 15, 1994, as health risk limits under this subdivision. Before a recommended allowable limit is adopted as an adopted health risk limit under this subdivision, the commissioner shall:

(1) publish in the State Register and disseminate through the Minnesota Extension Service and through soil and water conservation districts notice of intent to adopt a recommended allowable limit as an adopted health risk limit for specific substances and shall solicit information on the health impacts of the substance;

(2) publish the recommended allowable limit in the State Register and disseminate through the Minnesota Extension Service and through soil and water conservation districts allowing 60 days for public comment; and

(3) publish the adopted recommended allowable limit in the State Register and, at the same time, make available a summary of the public comments received and the commissioner's responses to the comments.

(b) A recommended allowable limit adopted by the commissioner as an adopted health risk limit under this subdivision may be challenged in the manner provided in sections 14.44 and 14.45.

(c) During the comment period under paragraph (a), clause (2), 25 or more persons may submit a written request for a public hearing as provided under section 14.25 for any health risk limits as adopted under this subdivision.

History: *1989 c 326 art 1 s 8; 1994 c 557 s 17,18; 1Sp2021 c 7 art 3 s 10*

EVALUATING DETECTION OF AND MANAGING POLLUTION

103H.251 EVALUATING DETECTION OF POLLUTANTS.

Subdivision 1. **Methods.** (a) The commissioner of agriculture for pollution resulting from agricultural chemicals and practices and the Pollution Control Agency for other pollutants shall evaluate the detection of pollutants in groundwater of the state. Evaluation of the detection may include collection technique, sampling handling technique, laboratory practices, other quality control practices, climatological conditions, and potential pollutant sources.

(b) If conditions indicate a likelihood of the detection of the pollutant or pollutant breakdown product to be a common detection, the commissioner of agriculture or the Pollution Control Agency must begin development of best management practices and continue to monitor for the pollutant or pollutant breakdown products.

Subd. 2. **Analysis of pollution trend.** The commissioner of agriculture for pollution resulting from agricultural chemicals and practices and the Pollution Control Agency for other pollutants shall develop and implement groundwater monitoring and hydrogeologic evaluation following pollution detection to evaluate pollution frequency and concentration trend. Assessment of the site-specific and pollutant-specific conditions and the likelihood of common detection must include applicable monitoring, pollutant use information, physical and chemical properties of the pollutant, hydrogeologic information, and review of information and data from other local, state, or federal monitoring databases.

History: *1989 c 326 art 1 s 9*

103H.275 MANAGING POLLUTANTS WHERE GROUNDWATER IS POLLUTED.

Subdivision 1. **Areas where groundwater pollution is detected.** (a) If groundwater pollution is detected, a state agency or political subdivision that regulates an activity causing or potentially causing a contribution to the pollution identified shall promote implementation of best management practices to prevent or minimize the source of pollution to the extent practicable.

(b) The Pollution Control Agency, or for agricultural chemicals and practices, the commissioner of agriculture may adopt water source protection requirements under subdivision 2 that are consistent with the goal of section 103H.001 and are commensurate with the groundwater pollution if the implementation of best management practices has proven to be ineffective.

(c) The water resources protection requirements must be:

(1) designed to prevent and minimize the pollution to the extent practicable;

(2) designed to prevent the pollution from exceeding the health risk limits; and

(3) submitted to the house of representatives and senate committees with jurisdiction over the environment, natural resources, and agriculture.

Subd. 2. **Adopting water resource protection requirements.** (a) The Pollution Control Agency, or for agricultural chemicals and practices, the commissioner of agriculture shall adopt by rule water resource protection requirements that are consistent with the goal of section 103H.001 to prevent and minimize the pollution to the extent practicable. The proposed rule must be submitted to the house of representatives and senate committees with jurisdiction over the environment, natural resources, and agriculture before adoption. The water resource protection requirements must be based on the use and effectiveness of best management practices, the product use and practices contributing to the pollution detected, economic factors, availability, technical feasibility, implementability, and effectiveness. The water resource protection requirements may be adopted for one or more pollutants or a similar class of pollutants. A water resource protection requirement may not be adopted before January 1, 1991.

(b) Before the water resource protection requirements are adopted, the Pollution Control Agency or the commissioner of agriculture for agricultural chemicals and practices must notify affected persons and businesses for comments and input in developing the water resource protection requirements.

(c) Unless the water resource protection requirements are to cover the entire state, the water resource protection requirements are only effective in areas designated by the commissioner of the Pollution Control Agency by order or for agricultural chemicals and practices in areas designated by the commissioner of agriculture by order. The procedures for issuing the order and the effective date of the order must be included in the water resource protection requirements rule.

(d) The water resource protection requirements rule must contain procedures for notice to be given to persons affected by the rule and order of the commissioner. The procedures may include notice by publication, personal service, and other appropriate methods to inform affected persons of the rule and commissioner's order.

(e) A person who is subject to a water resource protection requirement may apply to the Pollution Control Agency, or for agricultural chemicals and practices the commissioner of agriculture, and suggest an alternative protection requirement. Within 60 days after receipt, the agency or commissioner of agriculture must approve or deny the request. If the Pollution Control Agency or commissioner of agriculture approves the request, an order must be issued approving the alternative protection requirement.

(f) A person who violates a water resource protection requirement relating to pollutants, other than agricultural chemicals, is subject to the penalties for violating a rule adopted under chapter 116. A person who violates a water resource protection requirement relating to agricultural chemicals and practices is subject to the penalties for violating a rule adopted under chapter 18D.

History: *1989 c 326 art 1 s 10; 1999 c 86 art 3 s 12*

103H.280 SUPPLEMENTAL AUTHORITY.

The authority of the Pollution Control Agency and the commissioner of agriculture in this chapter is supplemental to other authority given by law and does not restrict other authorities.

History: *1989 c 326 art 1 s 11*