

## CHAPTER 7060

### MINNESOTA POLLUTION CONTROL AGENCY

### WATER QUALITY DIVISION

### UNDERGROUND WATERS

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#### 7060.0100 PURPOSE.

It is the purpose of this chapter to preserve and protect the underground waters of the state by preventing any new pollution and abating existing pollution.

**Statutory Authority:** *MS s 115.03 subd 1; 115.44*

#### 7060.0200 POLICY.

It is the policy of the agency to consider the actual or potential use of the underground waters for potable water supply as constituting the highest priority use and as such to provide maximum protection to all underground waters. The ready availability nearly statewide of underground water constitutes a natural resource of immeasurable value which must be protected as nearly as possible in its natural condition. For the conservation of underground water supplies for present and future generations and prevention of possible health hazards, it is necessary and proper that the agency employ a nondegradation policy to prevent pollution of the underground waters of the state.

Parts 7050.0100 to 7050.0220 also apply to underground waters. Where differences exist between parts 7050.0100 to 7050.0220 and this chapter, the more stringent of the conditions shall be construed to apply.

**Statutory Authority:** *MS s 115.03 subd 1; 115.44*

#### 7060.0300 DEFINITIONS.

Subpart 1. **Confined groundwater.** "Confined groundwater" means the water which is under pressure greater than atmospheric, and its upper limit is the bottom of a bed of distinctly lower hydraulic conductivity than that of the material in which the confined water occurs.

Subp. 2. **Perched groundwater.** "Perched groundwater" is unconfined ground water separated from an underlying body of ground water by an unsaturated zone. Perched ground water may be either permanent where recharge is frequent enough to maintain a saturated zone above the perching bed, or temporary where intermittent recharge is not great or frequent enough to prevent the perched water from disappearing from time to time as a result of drainage over the edge or through the perching bed.

Subp. 3. **Saturated zone.** "Saturated zone" is that part of the earth's crust in which all the voids, large and small, are ideally filled with water under pressure greater than atmospheric.

Subp. 4. **Toxic pollutant.** "Toxic pollutant" means those pollutants, or combination of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction), or physical deformations, in such organisms or their offspring.

Subp. 5. **Unconfined groundwater.** "Unconfined groundwater" is water in a formation that has a water table.

Subp. 6. **Underground water.** "Underground water" means the water contained below the surface of the earth in the saturated zone including, without limitation, all waters whether under confined, unconfined, or perched conditions, in near surface unconsolidated sediment or regolith, or in rock formations deeper underground. The term ground water shall be synonymous with underground water.

Subp. 7. **Unsaturated zone.** "Unsaturated zone" is the zone between the land surface and the water table. It includes the capillary fringe. Generally, the water is under less than atmospheric pressure.

Subp. 8. **Water table.** "Water table" is the surface of the ground water at which the pressure is atmospheric. Generally this is the top of the saturated zone.

Subp. 9. **Other terms.** Other terms used herein which are defined in Minnesota Statutes, chapters 115 and 116, shall be given the meaning ascribed to them therein. Terms not defined in this chapter or in Minnesota Statutes, chapters 115 and 116 shall be construed in accordance with accepted professional usage and practice.

**Statutory Authority:** *MS s 115.04 subd 1; 115.44*

#### **7060.0400 USES OF UNDERGROUND WATERS.**

The waters of the state are classified according to their highest priority use, which for underground waters of suitable natural quality is their use now or in the future as a source of drinking, culinary, or food processing water. Suitability is to be construed as meaning that the waters in their natural state can be used for such purposes after such purification or treatment processes as may be prescribed by the Minnesota Department of Health or the Minnesota Department of Agriculture. This classification is established to protect the underground waters as potable water supplies by preventing and abating pollution. In making this classification, the agency recognizes that the underground waters of the state are contained in a series of related and often interconnected aquifers, such that if sewage, industrial waste, other waste, or other pollutants enter the underground water system, they may spread both vertically and horizontally. Thus, all underground waters are best classified for use as potable water supply in order to preserve high quality waters by minimizing spreading of pollutants, by prohibiting further discharges of wastes thereto, and to maximize the possibility of rehabilitating degraded waters for their priority use.

**Statutory Authority:** *MS s 115.03 subd 1; 115.44*

#### **7060.0500 NONDEGRADATION POLICY.**

It is the policy of the agency that the disposal of sewage, industrial waste, and other wastes shall be controlled as may be necessary to ensure that to the maximum practicable extent the underground waters of the state are maintained at their natural quality unless a determination is made by the agency that a change is justifiable by reason of necessary economic or social development and will not preclude appropriate beneficial present and future uses of the waters.

**Statutory Authority:** *MS s 115.03 subd 1; 115.44*

#### **7060.0600 STANDARDS.**

Subpart 1. **Prohibition against discharge into saturated zone.** No sewage, industrial waste, or other wastes shall be discharged directly into the zone of saturation by such means as injection wells or other devices used for the purpose of injecting materials into the zone of saturation, except that the discharge of cooling water under existing permits of the agency may be continued, subject to review of the permit by the agency for conformance with subpart 3.

Subp. 2. **Prohibition against discharge into unsaturated zone.** No sewage, industrial waste, other waste, or other pollutants shall be allowed to be discharged to the unsaturated zone or deposited in such place, manner, or quantity that the effluent or residue therefrom, upon reaching the water table, may actually or potentially preclude or limit the use of the underground waters as a potable water supply, nor shall any such discharge or deposit be allowed which may pollute the underground waters. All such possible sources of pollutants shall be monitored at the discharger's expense as directed by the agency.

Subp. 3. **Control measures.** Treatment, safeguards, or other control measures shall be provided by the person responsible for any sewage, industrial waste, other waste, or other pollutants which are to be or have been discharged to the unsaturated zone or deposited there, or which have been discharged to the zone of saturation, to the extent necessary to ensure that the same will not constitute or continue to be a source of pollution of the underground waters or impair the natural quality thereof.

Subp. 4. **Toxic pollutants.** Toxic pollutants including, but not limited to, radioactive substances, chemicals, metals, solvents, petroleum products; plating wastes, and acids and bases, shall not be discharged or deposited in any manner such as to endanger the quality or uses of the underground waters.

Subp. 5. **Construction of rule.** This rule shall not be construed as prohibiting the use of septic tank systems or holding tanks for disposal or storage of sewage or other acceptable organic wastes where public or other sewage or other waste disposal systems with surface discharge of effluent are not available or cannot reasonably be made available (except as agency rules may in the future apply to the construction, location, maintenance, or use of such disposal systems), nor shall it be construed as prohibiting land disposal of acceptable organic wastes or the use of chemicals and fertilizers for the production or protection of agricultural crops or products, nor the recharge of ground waters under controlled conditions, provided that such practices do not pose a significant pollution hazard.

Subp. 6. **Monthly reports.** All persons operating or responsible for sewage, industrial waste, or other waste disposal systems, except septic tanks and related soil adsorption systems, which discharge effluent to the unsaturated zone, or deposits of pollutants or other operations from which residues may reach the underground waters, shall submit regularly every month a report to the agency on the operation of the disposal system, the waste flow, and the characteristics of the influent, effluent, and underground waters of the vicinity. Sufficient data on measurements, observations, sampling and analyses, and other pertinent information shall be furnished as may be required by the agency to, in its judgment, adequately reflect the condition of the disposal system, raw wastes, deposited material, effluent, residues, and the receiving or affected soils and underground waters. These data shall be collected under the supervision and direction of the agency.

Subp. 7. **Long-term underground storage.** The long-term storage underground for later treatment of sewage, industrial waste, or other wastes, except solid wastes under permit of the agency, is prohibited. Liquids or other substances not sewage or industrial waste which may pollute or tend to pollute the underground waters of the state shall not be stored underground without safeguards adequate to reasonably assure proper retention against entry into the underground waters. The use of sewer systems for purposes of conveyance or control of the flow to outlets or treatment works, including temporary storage for such purposes, shall not be construed to be long term storage within the meaning of this rule.

Subp. 8. **Natural state of ground water.** The ground water may in its natural state have some characteristics or properties exceeding the standards for potable water supplies. Where the background level of natural origin is reasonably definable and is higher than the accepted standard for potable water and the hydrology and extent of the aquifer are known, the natural level may be used as the standard.

**Statutory Authority:** *MS s 115.03 subd 1; 115.44*

#### **7060.0700 SEVERABILITY.**

If any provision of this rule or the application thereof to any person or circumstance is held to be invalid, such invalidity shall not affect other provisions of the rule or application of any other part of this regulation which can be given effect without application of the invalid provision. To this end the provisions of all sections, subsections, or subdivisions herein and the various applications thereof are declared to be severable.

**Statutory Authority:** *MS s 115.03 subd 1; 115.44*

#### **7060.0800 DETERMINATION OF COMPLIANCE.**

In making tests or analyses of the underground waters of the state, or of sewage, industrial wastes, or other wastes, to determine compliance with the standards, samples shall be collected in such manner and place and of such type, number, and frequency as may be considered satisfactory by the agency from the viewpoint of adequately reflecting the condition of the underground water and the effects of the pollutants upon the specified water uses. The samples shall be preserved and analyzed in accordance with procedures described in the 13th edition of Standard Methods for the Examination of Water and Wastewater, 1971, by the American Public Health Association, American Water Works Association, and the Water

Pollution Control Federation, and any revisions or amendments thereto, or other methods acceptable to the agency.

**Statutory Authority:** *MS s 115.03 subd 1; 115.44*

**7060.0900 VARIANCE.**

In any cases where, upon application of the responsible person or persons, the agency finds that by reason of exceptional circumstances the strict enforcement of any provision of these standards would cause undue hardship, that disposal of the sewage, industrial waste, or other waste is necessary for the public health, safety, or welfare, or that strict conformity with the standards would be unreasonable, impractical, or not feasible under the circumstances, the agency in its discretion may permit a variance therefrom upon such conditions as it may prescribe for prevention, control, or abatement of pollution in harmony with the general purpose of these standards and the intent of the applicable state and federal laws.

**Statutory Authority:** *MS s 115.03 subd 1; 115.44*