

1.1 moves to amend H.F. No. 2108 as follows:

1.2 Delete everything after the enacting clause and insert:

1.3 "Section 1. Minnesota Statutes 2020, section 103I.005, subdivision 8a, is amended to read:

1.4 Subd. 8a. **Environmental well.** "Environmental well" means an excavation 15 or more
1.5 feet in depth that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed
1.6 to:

1.7 (1) conduct physical, chemical, or biological testing of groundwater, and includes a
1.8 groundwater quality monitoring or sampling well;

1.9 (2) lower a groundwater level to control or remove contamination in groundwater, and
1.10 includes a remedial well and excludes horizontal trenches; ~~or~~

1.11 (3) monitor or measure physical, chemical, radiological, or biological parameters of the
1.12 earth and earth fluids, or for vapor recovery or venting systems. An environmental well
1.13 includes an excavation used to:

1.14 (i) measure groundwater levels, including a piezometer;

1.15 (ii) determine groundwater flow direction or velocity;

1.16 (iii) measure earth properties such as hydraulic conductivity, bearing capacity, or
1.17 resistance;

1.18 (iv) obtain samples of geologic materials for testing or classification; or

1.19 (v) remove or remediate pollution or contamination from groundwater or soil through
1.20 the use of a vent, vapor recovery system, or sparge point; or

1.21 (4) hold a groundwater thermal exchange device.

1.22 An environmental well does not include an exploratory boring.

2.1 **EFFECTIVE DATE.** This section is effective the day following final enactment.

2.2 Sec. 2. Minnesota Statutes 2020, section 103I.005, subdivision 20a, is amended to read:

2.3 Subd. 20a. **Water supply well.** "Water supply well" means a well that is not a dewatering
2.4 well or environmental well and includes wells used:

2.5 (1) for potable water supply;

2.6 (2) for irrigation;

2.7 (3) for agricultural, commercial, or industrial water supply;

2.8 (4) for heating or cooling, including holding groundwater thermal exchange devices;

2.9 and

2.10 (5) for testing water yield for irrigation, commercial or industrial uses, residential supply,
2.11 or public water supply.

2.12 **EFFECTIVE DATE.** This section is effective the day following final enactment.

2.13 Sec. 3. Minnesota Statutes 2020, section 103I.621, is amended to read:

2.14 **103I.621 PERMITS FOR GROUNDWATER THERMAL EXCHANGE DEVICES.**

2.15 Subdivision 1. **Permit.** (a) Notwithstanding any department or agency rule to the contrary,
2.16 the commissioner shall issue, on request by the owner of the property and payment of the
2.17 permit fee, permits for the reinjection of water by a properly constructed well into the same
2.18 aquifer from which the water was drawn for the operation of a groundwater thermal exchange
2.19 device. A groundwater thermal exchange device may operate using one or more water
2.20 supply wells or environmental wells and may include devices constructed with downhole
2.21 heat exchangers.

2.22 (b) As a condition of the permit, an applicant must agree to allow inspection by the
2.23 commissioner during regular working hours for department inspectors.

2.24 ~~(c) Not more than 200 permits may be issued for small systems having maximum~~
2.25 ~~capacities of 20 gallons per minute or less. The small systems are subject to inspection twice~~
2.26 ~~a year.~~

2.27 ~~(d) Not more than ten permits may be issued for larger systems having maximum~~
2.28 ~~capacities from 20 to 50 gallons per minute. The larger systems are subject to inspection~~
2.29 ~~four times a year.~~

2.30 ~~(e)~~ (c) A person issued a permit must comply with this section for the permit to be valid.

3.1 Subd. 2. **Water-use requirements apply.** Water-use permit requirements and penalties
3.2 under chapter 103F and related rules adopted and enforced by the commissioner of natural
3.3 resources apply to groundwater thermal exchange permit recipients. A person who violates
3.4 a provision of this section is subject to enforcement or penalties for the noncomplying
3.5 activity that are available to the commissioner and the Pollution Control Agency.

3.6 Subd. 3. **Construction requirements.** (a) Withdrawal and reinjection, or
3.7 nonconsumptive recirculation, for the groundwater thermal exchange device must be
3.8 accomplished by a closed system in which the waters drawn for thermal exchange do not
3.9 have contact or commingle with water from other sources or with polluting material or
3.10 substances. Extraction and injection, or nonconsumptive recirculation, within a single well
3.11 system constitutes a closed system. The closed system must be constructed to allow an
3.12 opening for inspection by the commissioner.

3.13 (b) Wells that are part of a groundwater thermal exchange system may not serve another
3.14 function, except water may be supplied to the ~~domestic~~ water system if:

3.15 (1) the supply is taken from the thermal exchange system ahead of the heat exchange
3.16 unit; ~~and~~

3.17 (2) either: (i) the domestic water system is protected by an airgap or backflow prevention
3.18 device as described in rules relating to plumbing enforced by the commissioner of labor
3.19 and industry; or (ii) the heat exchanger and heat loop piping are continuously monitored
3.20 for pressure and flow with a controller programmed to automatically shut down upon
3.21 measuring parameters that indicate a leak; and

3.22 (3) the groundwater thermal exchange device is installed in a water supply well.

3.23 (c) A groundwater thermal exchange system may be used for domestic water heating
3.24 only if the water heating device is an integral part of the heat exchange unit that is used for
3.25 space heating and cooling.

3.26 (d) A well holding a groundwater thermal exchange device may be fitted with a well
3.27 screen constructed using any combination or arrangement of screen, casing, riser, leader,
3.28 or sump pipe so long as the well does not interconnect multiple aquifers.

3.29 Subd. 3a. **Heat transfer fluids.** Groundwater thermal exchange devices may operate
3.30 using:

3.31 (1) a heat transfer fluid containing biocide and anticorrosion agents, only if all additions
3.32 to the heat transfer fluids are NSF 60-approved or USP-grade;

3.33 (2) food-grade propylene glycol; or

4.1 (3) any other heat transfer fluid approved by the commissioner for use in bored
4.2 geothermal heat exchangers.

4.3 Subd. 3b. **Consumptive use.** A groundwater thermal exchange device may be installed
4.4 in an environmental well if it does not depend on the consumptive use of groundwater to
4.5 operate.

4.6 Subd. 4. **Rules.** The commissioner may adopt rules to administer this section.

4.7 **EFFECTIVE DATE.** This section is effective the day following final enactment."

4.8 Amend the title accordingly