

SENATE
STATE OF MINNESOTA
NINETY-SECOND SESSION

S.F. No. 1919

(SENATE AUTHORS: NELSON, Draheim, Koran, Duckworth and Lang)

DATE	D-PG	OFFICIAL STATUS
03/10/2021	799	Introduction and first reading
		Referred to Health and Human Services Finance and Policy
02/28/2022	5164	Chief author stricken, shown as co-author Draheim
		Chief author added Nelson
03/29/2022		Comm report: To pass as amended and re-refer to Finance

1.1 A bill for an act

1.2 relating to wells and borings; adding a definition for a submerged closed loop

1.3 exchanger; specifying a water supply well includes a well containing a submerged

1.4 closed loop heat exchanger; specifying requirements for a submerged closed loop

1.5 heat exchanger; amending Minnesota Statutes 2020, section 103I.005, subdivisions

1.6 17a, 20a, by adding a subdivision; proposing coding for new law in Minnesota

1.7 Statutes, chapter 103I.

1.8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.9 Section 1. Minnesota Statutes 2020, section 103I.005, subdivision 17a, is amended to

1.10 read:

1.11 Subd. 17a. ~~Temporary boring~~ Submerged closed loop heat exchanger. "Temporary

1.12 ~~boring~~" "Submerged closed loop heat exchanger" means ~~an excavation that is 15 feet or~~

1.13 ~~more in depth, is sealed within 72 hours of the time of construction, and is drilled, cored,~~

1.14 ~~washed, driven, dug, jetted, or otherwise constructed to~~ a heating and cooling system that:

1.15 (1) ~~conduct physical, chemical, or biological testing of groundwater, including~~

1.16 ~~groundwater quality monitoring~~ is installed in a water supply well;

1.17 (2) ~~monitor or measure physical, chemical, radiological, or biological parameters of~~

1.18 ~~earth materials or earth fluids, including hydraulic conductivity, bearing capacity, or~~

1.19 ~~resistance~~ utilizes the convective flow of groundwater as the primary medium of heat

1.20 exchange;

1.21 (3) ~~measure groundwater levels, including use of a piezometer~~ contained potable water

1.22 as the heat transfer fluid; and

2.1 (4) ~~determine groundwater flow direction or velocity~~ operates using nonconsumptive
2.2 recirculation.

2.3 A submerged closed loop heat exchanger also includes submersible pumps, a heat exchanger
2.4 device, piping, and other necessary appurtenances.

2.5 Sec. 2. Minnesota Statutes 2020, section 103I.005, is amended by adding a subdivision
2.6 to read:

2.7 Subd. 17b. **Temporary boring.** "Temporary boring" means an excavation that is 15
2.8 feet or more in depth, is sealed within 72 hours of the time of construction, and is drilled,
2.9 cored, washed, driven, dug, jetted, or otherwise constructed to:

2.10 (1) conduct physical, chemical, or biological testing of groundwater, including
2.11 groundwater quality monitoring;

2.12 (2) monitor or measure physical, chemical, radiological, or biological parameters of
2.13 earth materials or earth fluids, including hydraulic conductivity, bearing capacity, or
2.14 resistance;

2.15 (3) measure groundwater levels, including use of a piezometer; and

2.16 (4) determine groundwater flow direction or velocity.

2.17 Sec. 3. Minnesota Statutes 2020, section 103I.005, subdivision 20a, is amended to read:

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

2.20 (1) for potable water supply;

2.21 (2) for irrigation;

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

2.23 (4) for heating or cooling; ~~and~~

2.24 (5) for containing a submerged closed loop heat exchanger; and

2.25 (6) for testing water yield for irrigation, commercial or industrial uses, residential supply,
2.26 or public water supply.

3.1 Sec. 4. **[103I.631] INSTALLATION OF A SUBMERGED CLOSED LOOP HEAT**
3.2 **EXCHANGER.**

3.3 Subdivision 1. **Installation.** Notwithstanding any other provision of law, the
3.4 commissioner must allow the installation of a submerged closed loop heat exchanger in a
3.5 water supply well. A project may consist of more than one water supply well on a particular
3.6 site.

3.7 Subd. 2. **Setbacks.** Water supply wells used only for the nonpotable purpose of providing
3.8 heating and cooling using a submerged closed loop heat exchanger are exempt from isolation
3.9 distance requirements greater than ten feet.

3.10 Subd. 3. **Construction.** The screened interval of a water supply well constructed to
3.11 contain a submerged closed loop heat exchanger completed within a single aquifer may be
3.12 designed and constructed using any combination of screen, casing, leader, riser, sump, or
3.13 other piping combinations, so long as the screen configuration does not interconnect aquifers.

3.14 Subd. 4. **Permits.** A submerged closed loop heat exchanger is not subject to the permit
3.15 requirements in this chapter.

3.16 Subd. 5. **Variances.** A variance is not required to install or operate a submerged closed
3.17 loop heat exchanger.