

SF1919 - 2A - Groundwater Thermal Exchange Device

Chief Author: **Carla Nelson**  
 Committee: **Health and Human Services Finance and Policy**  
 Date Completed: **3/25/2022 9:23:35 AM**  
 Agency: **Health Dept**

State Fiscal Impact	Yes	No
Expenditures	X	
Fee/Departmental Earnings	X	
Tax Revenue		X
Information Technology		X
<b>Local Fiscal Impact</b>		
		X

This table shows direct impact to state government only. Local government impact, if any, is discussed in the narrative. Reductions shown in the parentheses.

State Cost (Savings)	Biennium			Biennium	
	Dollars in Thousands	FY2021	FY2022	FY2023	FY2024
State Government Special Rev	-	-	68	51	51
<b>Total</b>	-	-	<b>68</b>	<b>51</b>	<b>51</b>
<b>Biennial Total</b>			<b>68</b>		<b>102</b>

Full Time Equivalent Positions (FTE)	Biennium			Biennium	
	FY2021	FY2022	FY2023	FY2024	FY2025
State Government Special Rev	-	-	.6	.6	.6
<b>Total</b>	-	-	<b>.6</b>	<b>.6</b>	<b>.6</b>

**LBO Analyst's Comment**

I have reviewed this fiscal note for reasonableness of content and consistency with the LBO's Uniform Standards and Procedures.

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### State Cost (Savings) Calculation Details

This table shows direct impact to state government only. Local government impact, if any, is discussed in the narrative. Reductions are shown in parentheses.

\*Transfers In/Out and Absorbed Costs are only displayed when reported.

State Cost (Savings) = 1-2 Dollars in Thousands	Biennium			Biennium	
	FY2021	FY2022	FY2023	FY2024	FY2025
State Government Special Rev	-	-	68	51	51
<b>Total</b>	-	-	<b>68</b>	<b>51</b>	<b>51</b>
<b>Biennial Total</b>			<b>68</b>		<b>102</b>
<b>1 - Expenditures, Absorbed Costs*, Transfers Out*</b>					
State Government Special Rev	-	-	103	86	86
<b>Total</b>	-	-	<b>103</b>	<b>86</b>	<b>86</b>
<b>Biennial Total</b>			<b>103</b>		<b>172</b>
<b>2 - Revenues, Transfers In*</b>					
State Government Special Rev	-	-	35	35	35
<b>Total</b>	-	-	<b>35</b>	<b>35</b>	<b>35</b>
<b>Biennial Total</b>			<b>35</b>		<b>70</b>

### Bill Description

This bill establishes a new definition in statute for a Submerged Closed Loop Heat Exchanger. The bill modifies the definition of a Water Supply Well to include the unpermitted installation of Submerged Closed Loop Heat Exchangers directly into a Water Supply Well. The bill also establishes a second set of construction standards for a Water Supply Well and excludes the use of the variance process for the evaluation of submerged closed loop heat exchangers in a site-specific manner. There is no appropriation in the bill.

### Assumptions

The construction of wells is regulated by the Minnesota Well Code (Minnesota Statute, chapter 103I, and Minnesota Rules, chapter 4725). This bill introduces a new and different set of standards for Water-Supply Wells, reducing the minimum isolation distance between a water-supply well and sources of contamination. MDH assumes the implementation of this bill beginning fiscal year 2023. MDH will need to create a new category of Water Supply Wells on applications and our existing data systems. The creation of a new category is critical to the ability to inspect and document Water Supply Wells subject to different standards. Currently, well drillers notify the department of the type and location of new wells being installed in the state. This notification ensures MDH staff are aware of this new installation and can ensure the appropriate standards are applied to this installation during inspection. A new category Water Supply Well would need to be developed in the Well Management Database to record the fact that the wells are subject to a different set of inspection standards. MNIT estimates the total cost for implementing these changes in the database is \$18,720 in fiscal year 2023 with an ongoing maintenance cost of \$4,680 each year.

The addition of this new category Water Supply Well would also require updating well construction notices, inspection records, construction records, and sealing records. Estimated costs to order additional records is \$5,000 annually. The department assumes 0.2 FTE staff is required to create new records with the New Category Water Supply Well and for fee processing, data entry and records management in fiscal year 2023 and ongoing.

MDH assumes the annual construction of 128 new category Water Supply Wells for Submerged Closed Loop Heat Exchanger installation. For comparison, the average number of permits issued for bored geothermal heat exchange (BGHE) systems, a similar technology, is 64 per year. Permitted BGHE systems conform to the Minnesota Well Code and do not involve the use of a water supply well however, this technology is closest to the technology presented in this bill. MDH expects the construction of two wells per Submerged Closed Loop Heat Exchanger System, based on variances received over the past year for submerged closed loop heat exchanger installation sites.

Based on the installation of 128 New Category Water Supply Wells and an inspection rate of 25%, MDH assumes the inspection of 32 additional wells annually. It is assumed that communication of the additional new category Water Supply

Well to stakeholders, including well drillers, will be required. Coordination with MDH partners including local delegated programs, the Advisory Council on Wells and Borings, and other state agencies will also be needed. Inspection, enforcement, and associated communication as described is estimated to require 0.4 FTE staff.

**Expenditure and/or Revenue Formula**

**Expenditure**

Expenditure (Actual Dollars)	Amount	FY 2022	FY 2023	FY 2024	FY 2025
<b>Salary &amp; Fringe:</b>		FTE	FTE	FTE	FTE
Hydrologist 3	114,121		0.40	0.40	0.40
Office Admin Specialist Intermediate	75,932		0.20	0.20	0.20
	<b>FTE</b>	<b>0.00</b>	<b>0.60</b>	<b>0.60</b>	<b>0.60</b>
	<b>Subtotal</b>	<b>0</b>	<b>60,835</b>	<b>60,835</b>	<b>60,835</b>
<b>Information Technology:</b>					
Initial build (Wells Database Upgrade) and ongoing maintenance		0	18,720	4,680	4,680
	<b>Subtotal</b>	<b>0</b>	<b>18,720</b>	<b>4,680</b>	<b>4,680</b>
<b>Other Operating Costs:</b>					
Construction records and inspection reports	5,000		5,000	5,000	5,000
	<b>Subtotal</b>	<b>0</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>
<b>Grants, Aids &amp; Subsidies:</b>					
	<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Indirect (21.7% Eligible Costs)</b>	<b>Subtotal</b>	<b>0</b>	<b>18,348</b>	<b>15,302</b>	<b>15,302</b>
<b>Expenditure</b>	<b>Total</b>	<b>0</b>	<b>102,903</b>	<b>85,817</b>	<b>85,817</b>
<b>Fiscal Tracking (Dollars in Thousands)</b>		<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<b>Health Protection BACT 03</b>		<b>0</b>	<b>103</b>	<b>86</b>	<b>86</b>
Administration		0	103	86	86
Grants		0	0	0	0

**Revenue**

Revenue (Actual Dollars)	Amount	FY 2022	FY 2023	FY 2024	FY 2025
<b>Fee Description:</b>	<b>Amount</b>	<b>Units</b>	<b>Units</b>	<b>Units</b>	<b>Units</b>
Well Construction Notification	275.00	0	128	128	128
	<b>Total</b>	<b>0</b>	<b>35,200</b>	<b>35,200</b>	<b>35,200</b>
<b>Fiscal Tracking (Dollars in Thousands)</b>		<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<b>Impact:</b>					

Expenditure		0	103	86	86
Revenue		0	35	35	35
<b>Annual Cost (Savings)</b>		<b>0</b>	<b>68</b>	<b>51</b>	<b>51</b>
<b>Cumulative Cost (Savings)</b>		<b>0</b>	<b>68</b>	<b>119</b>	<b>170</b>

**Long-Term Fiscal Considerations**

Wells Management fee revenue is credited to the state government special revenue fund. The bill has an ongoing cost to the fund as estimated expenditures are greater than forecast revenue.

**Local Fiscal Impact**

**References/Sources**

Minnesota Department of Health (MDH). (2022). Well Management Section Fees. <https://www.health.state.mn.us/communities/environment/water/wells/feesched.html>

Minnesota Management and Budget. (2021). Minnesota Biennial Budget 2022: Departmental Earnings January 2021. "Well Management" pp. 267-268. <https://mn.gov/mmb-stat/documents/budget/operating-budget/gov-rec/jan21/jan21-gov-rec-departmental-earnings-detail.pdf>

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