



*Protecting, maintaining and improving the health of all Minnesotans*

March 20, 2026

Princeton Public Utilities Commission  
907 First Street  
Princeton, Minnesota 55371

Water System Owner/Operator:

SUBJECT: Sanitary Survey Report for Princeton Public Water System (PWS), Mille Lacs County, PWSID 1480008

Enclosed is a copy of the sanitary survey report summarizing an on-site inspection of your Community Public Water System. This report includes a review of the system's water source, facilities, equipment, operation, maintenance, and monitoring compliance for the purpose of evaluating the adequacy of the facilities for producing and distributing safe drinking water. Technical and management information regarding the operation of the system may also be provided. Conducting sanitary surveys on a regular basis is an important element in preventing contamination of drinking water supplies and in maintaining compliance with the National Primary Drinking Water Standards. Scott Schmit and Shane Patrin were present during this inspection.

Please take appropriate action to address any deficiencies or recommendations identified within this report. A deficiency may lead to a contamination of the water supply or failure of the system to be in compliance with the Safe Drinking Water Act. The enclosed report must be kept on file and made available for public review for not less than ten (10) years.

The Minnesota Department of Health (MDH) continues to monitor your PWS for contaminants identified by state and federal drinking water regulations. The results of such monitoring are not part of this report. They are sent to you under separate cover as they become available.

If you have questions concerning the information contained in the report, please contact me at 320/640-3535.

Sincerely,

Collin Fetters  
Community Public Water Supply Unit  
Environmental Health Division  
4140 Thielman Lane, Suite 101  
St. Cloud, Minnesota 56301

CF  
Enclosures  
cc: Water Superintendent



**MINNESOTA DEPARTMENT OF HEALTH  
SECTION OF DRINKING WATER PROTECTION  
Public Water Supply Inventory Report**



System Name: <b>Princeton</b>	Survey Date: <b>01/21/2026</b>
PWSID: <b>1480008</b>	Surveyor: <b>Collin Fetters</b>
System Contact: <b>Scott Schmit</b>	PWS Type: <b>Community</b>

**Contact Information**

<u>Name</u>	<u>Address</u>	<u>Phone/Email</u>
<b>Contact</b>		
Scott Schmit		Business Fax 763/389-2273 Business Phone 1 763/260-3392, Ext. Mobile Business Phone 2 763/389-2252 Email <a href="mailto:sschmit@princetonutilities.com">sschmit@princetonutilities.com</a>
Shane Patrin		Business Phone 1 763/389-2252 Email <a href="mailto:spatrin@princetonutilities.com">spatrin@princetonutilities.com</a>
<b>Owner/Responsible Party</b>		
Princeton Public Utilities Commission	907 First Street Princeton, MN 55371	Business Phone 1 763/389-2252 Email <a href="mailto:kbutcher@princetonutilities.com">kbutcher@princetonutilities.com</a>
<b>Financial</b>		
Princeton Public Utilities	c/o Keith Butcher, Manager 907 1st St. Princeton, MN 55371	Business Phone 1 763/389-2252 Email <a href="mailto:kbutcher@princetonutilities.com">kbutcher@princetonutilities.com</a>
<b>Sample Bottles/General Correspondence</b>		
Princeton Public Utilities Commission	907 First Street Princeton, MN 55371	Business Fax 763/389-2273 Business Phone 1 763/389-2252 Email <a href="mailto:kbutcher@princetonutilities.com">kbutcher@princetonutilities.com</a>
<b>Emergency Workday</b>		
Scott Schmit		Business Phone 1 612/715-8703 Business Phone 2 763/260-3392, Ext. Mobile Email <a href="mailto:sschmit@princetonutilities.com">sschmit@princetonutilities.com</a>
Shane Patrin		Business Phone 1 763/389-2252 Email <a href="mailto:spatrin@princetonutilities.com">spatrin@princetonutilities.com</a>
<b>Emergency After-Hours</b>		
Scott Schmit		Business Phone 1 612/715-8703 Business Phone 2 763/260-3392, Ext. Mobile Email <a href="mailto:sschmit@princetonutilities.com">sschmit@princetonutilities.com</a>
Shane Patrin		Business Phone 1 763/389-2252 Email <a href="mailto:spatrin@princetonutilities.com">spatrin@princetonutilities.com</a>



**MINNESOTA DEPARTMENT OF HEALTH**  
**SECTION OF DRINKING WATER PROTECTION**  
**Public Water Supply Inventory Report**



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PWSID: **1480008**

System Contact: **Scott Schmit**

Survey Date: **01/21/2026**

Surveyor: **Collin Fetters**

PWS Type: **Community**

<u>Name</u>	<u>Address</u>	<u>Phone/Email</u>
<b>Consumer Confidence Report</b>		
Keith Butcher		Business Phone 1 763/389-2252 Email kbutcher@princetonutilities.com

**Classification Information**

Owner Type:	Municipal	Population:	5421
System Class:	C	Service Connections:	1789
Service Area Characteristics:	Municipal	Class Points:	46

**Certified Operators**

<u>Name</u>	<u>Class</u>	<u>Expiration Date</u>	<u>Name</u>	<u>Class</u>	<u>Expiration Date</u>
Patrin, Shane C.	C	03/31/2029	Schmit, Scott B.	C	11/30/2026
Bigger, James R.	D	02/29/2028	Elton, Kenny E.	D	02/29/2028

**Production Totals**

Design Capacity:	1,500 Gallons per Minute	Emergency Capacity:	750 Gallons per Minute
Average Daily:	601,555 Gallons	Storage Capacity:	800,000 Gallons
Highest Daily:	1,197,000 Gallons		

**Source Information**

Well #7

Unique Well No.: 00578949	Source Type: Groundwater
Type: Well	Pump Capacity (gpm): 750
Status: Active	Pumping Rate (gpm): 675
Availability: Primary	Emergency Capacity: 750 Gallons per Minute
Year Constructed: 1998	Static Depth (ft): 24
Well Depth (ft): 169	Drawdown (ft): 11
Casing Depth (ft): 137	Pump Type: Vertical Turbine VFD
Casing Diameter (in): 14	Vulnerable: No
Screen Length (ft): 40	
Aquifer: Quaternary Buried Artesian Aquifer	



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Well #8

Unique Well No.: 00751504

Type: Well

Status: Active

Availability: Primary

Year Constructed: 2007

Well Depth (ft): 139

Casing Depth (ft): 104

Casing Diameter (in): 18

Screen Length (ft): 41

Aquifer: Quaternary Water Table Aquifer

Source Type: Groundwater

Pump Capacity (gpm): 750

Pumping Rate (gpm): 750

Emergency Capacity:

Static Depth (ft): 22

Drawdown (ft): 51

Pump Type: Submersible VFD

Vulnerable: Yes

Well #9

Unique Well No.: 00749848

Type: Well

Status: Active

Availability: Primary

Year Constructed: 2007

Well Depth (ft): 160

Casing Depth (ft): 135

Casing Diameter (in): 18

Screen Length (ft): 30

Aquifer: Quaternary Water Table Aquifer

Source Type: Groundwater

Pump Capacity (gpm): 750

Pumping Rate (gpm): 750

Emergency Capacity:

Static Depth (ft): 16

Drawdown (ft): 62

Pump Type: Submersible VFD

Vulnerable: Yes

**Treatment Information**

TREATMENT PLANT #1

Type: Treatment Plant

Status: Active

Availability: Primary

Source Water: Groundwater

Design Capacity: 750 Gallons per Minute

Emergency Capacity: 750 Gallons per Minute

Operating Rate: 750 Gallons per Minute

Treatment Objective

Disinfection

Fluoridation

Iron/Manganese Removal

Lead/Copper Corrosion Control

Treatment Process Mechanism

Chlorine/Sodium hypochlorite

Fluoridation/Hydrofluosilicic acid

Filtration (Pressure)/Anthracite/Greensand

Oxidation - chemical/Chlorine

Oxidation - chemical/Sodium permanganate

Stabilization/Inhibitors/Blended phosphates



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**Treatment Information**

TREATMENT PLANT #2

Type: Treatment Plant  
 Status: Active  
 Availability: Primary

Source Water: Groundwater  
 Design Capacity: 1,500 Gallons per Minute  
 Emergency Capacity:  
 Operating Rate: 750 Gallons per Minute

Treatment Objective

Disinfection  
 Fluoridation  
 Iron/Manganese Removal  
  
 Lead/Copper Corrosion Control

Treatment Process Mechanism

Chlorine/Sodium hypochlorite  
 Fluoridation/Hydrofluosilicic acid  
 Filtration (Pressure)/Anthracite/Greensand  
 Oxidation - chemical/Chlorine  
 Oxidation - chemical/Sodium permanganate  
 Stabilization/Inhibitors/Blended phosphates

**Storage Information**

Elevated 250000 - Middle

Type: Storage-Elevated  
 Status: Active

Capacity: 250,000 Gallons  
 Availability: Primary  
 Chlorination:

Specific Storage Notes: Mixer installed 2016

Elevated 250000 - North

Type: Storage-Elevated  
 Status: Active

Capacity: 250,000 Gallons  
 Availability: Primary  
 Chlorination:

Specific Storage Notes: Mixer installed 2016

Elevated 300000 - South

Type: Storage-Elevated  
 Status: Active

Capacity: 300,000 Gallons  
 Availability: Primary  
 Chlorination:



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**Bacteriological Sample Site Plan**

**Distribution**

<u>Sample Site ID</u>	<u>Sample Location</u>	<u>Status</u>	<u>Notes</u>
01	810 N Rum River Drive	Active	Casey's North
02	501 S. Rum River Drive	Active	Casey's South
03	1012 N 5th Ave	Active	City Shop
04	919 Northland Dr	Active	Hospital
05	701 1st Street	Active	Elim Home
06	1400 North 15th Avenue	Active	Apartments
07	305 21st Ave S	Active	Public Safety Building
08	1502 S 12th St.	Active	D&N Trucking
09	106 S. 9th Ave Cir.	Active	BP Gas Station
10	1502 S. 14th St.	Active	Northwoods Finishing
11	907 1st St	Active	Power Plant
12	509 N. 19th Ave	Active	BP Gas Station



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Surveyor: **Collin Feters**

PWS Type: **Community**

**Deficiencies**

Deficiencies are observed or identified issues that may indicate noncompliance with regulations, codes, or drinking water standards, result in contamination of drinking water delivered to consumers, or compromise to public health. Deficiencies must be corrected in a timely manner.

**Pumps/Pump Facilities and Controls**

The discharge piping is not equipped with an air release/vacuum relief valve located upstream from the check valve, with exhaust relief piping terminating in a down-turned position at least 18 inches above the floor and covered with a 24-mesh screen. [Recommended Standards for Water Works 3.2.7.3]

*The air relief exhaust piping for well #7 terminates within 18 inches of the floor. It is required that the system shorten the exhaust piping to at least 18 inches above the floor and ensure that it is equipped with a 24 mesh corrosion resistant screen. [Recommended Standards for Water Works 3.2.7.3]*

**Requirements and Recommendations**

Requirements are based on regulation, code, and standard operating procedures across the water industry to be followed to maintain the public water supply and are listed here as informational guidance. Requirements not followed may be elevated to deficiencies. Recommendations are best practices for a public water supply to maintain the safe delivery of drinking water to consumers.

**Water Source**

In 2024, the system moved well #9 to operate as a lag well due to PFAS detects in the well. This operation showed to only be a temporary solution to the contaminant detect as the plume seemed to shift toward the primary active well. The system has since returned both wells to primary operation alternating with each use.

As a reminder, it is required that a well for a community public water supply be located according to distances specified in Minn.Rules 4725.4450, including not less than 50 feet from a source of contamination including buried sewers (except as specified in Minn. Rules 4725.5850).

No deficiencies observed.

**Pumps/Pump Facilities and Controls**

It is recommended that air relief exhaust piping within the treatment plant discharge with an air gap of at least 12 inches above the floor and be protected with a 24-mesh corrosion-resistant screen. [Recommended Standards for Water Works 3.2.7.3]



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### **Pumps/Pump Facilities and Controls**

Treatment plant #2 and wells #8 and #9 do not have a designated source of emergency backup power. The system is in the process of connecting these facilities to the local power plant to serve as a backup source of power. To ensure continuous service when the primary power has been interrupted, it is recommended that a standby power source be provided through: 1. a direct connection to at least two independent public power sources, or 2. dedicated portable or in-place auxiliary power of adequate supply and connectivity. [Minn. Rules 4720.3927]

### **Treatment**

It is required that gases from feeders, storage and equipment exhausts be conveyed to the outside atmosphere above grade and remote from air intakes and must be screened. Acid storage tanks must be vented to the outside but not through vents in common with day tanks. [Minn. Rules 4720.3960]

The system currently uses variable frequency drive (VFD) wells, and the chemical feed system is fixed rate, meaning it delivers a constant chemical dosage regardless of fluctuations in well flow rates. As a reminder, the system must ensure that all chemical feed rates are proportional to the flow of water being produced [MN Rules 4720.3957.4].

The system should consider upgrading to a variable-rate chemical feed system that adjusts dosing proportionally to the wells' flow rates. If any changes are proposed, consult with MDH Plan Review prior to implementation [MN Rules- 4720.0010].

It is recommended that recycled water from ground water systems be returned at a rate of less than 10% of the instantaneous raw water flow entering the plant. [Recommended Standards for Water Works 9.5.5]

Changes in treatment are required to be approved by the Minnesota Department of Health before they are implemented. [Minn. Rules 4720.0010]

No deficiencies observed.

### **Water Storage**

The system is currently planning a rehab of the South Tower for between 2028 and 2029. If any modifications are proposed, consult with MDH Plan Review prior to implementation [MN Rules- 4720.0010]. MDH Plan Review Contact information can be found here: <https://www.health.state.mn.us/communities/environment/water/planreview/community.html>



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### **Water Storage**

It is recommended that the community water storage tank be internally inspected on a regular basis. Tank cleaning should take place every 2 to 5 years based on tank sediments, decline of chlorine residuals within the tank or other indicators of a decrease in water quality.

It is required that the overflow for the water storage structure be extended to within 12-24 inches of the ground and be discharged over a splash plate or drainage inlet structure. The overflow must open downward and be screened with an appropriate mesh non-corrodible screen.

[Recommended Standards for Water Works 7.0.7]

No deficiencies observed.

### **Distribution**

When truck filling from hydrants adequate backflow protection is required to be in place to prevent a cross connection that could result in the back siphonage of toxic material into the drinking water supply. One of the following must be implemented:

- a. A permanent air-break installed on the discharge end of the each hose used for the tank filling.
- b. A reduced pressure zone backflow preventer installed on the supply line.
- c. A vacuum breaker can be used if it is permanently located at least 12 inches above the outlet of the pipe and the overflow rim of the highest truck for each filling point.

[Recommended Standards for Water Works 8.13]

While the system maintains signage at the truck filling site requiring backflow prevention devices, it is recommended that the system supply and maintain the backflow prevention used as to ensure the effective maintenance and operation of these cross connection control techniques.

A minimum cover of 2 feet is required over pipe at underwater crossings. When water crossings are greater than 15 feet in width, the following must be provided:

- a. The pipe must be of special construction, having flexible watertight joints.
- b. Valves must be provided at both ends of the water crossings so that the section can be isolated for testing or repair. Valves must be easily accessible, not subject to flooding and the valve closest to the supply source must be in a manhole.
- c. Permanent taps must be made on each side of the valve within the manhole to allow insertion of a meter to determine leakage and for sampling purposes.

[Recommended Standards for Water Works 8.9]



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### **Distribution**

It is recommended that a valve exercising and replacement program be initiated to ensure valves are in working condition. This will minimize sanitary hazards and inconvenience to the customer when working on the distribution system. [AWWA Standards Distribution Systems Operation and Management, Section 4]

It is recommended that dead ends in the distribution system be minimized by looping. If looping is not feasible, a fire hydrant, approved flushing hydrant or blow off for flushing purposes must be used at the dead ends to maintain water quality and/or chlorine residual. [Recommended Standards for Water Works 8.0]

It is recommended that undersized mains, less than 6 inches in diameter, be replaced as the opportunities present themselves.

No deficiencies observed.

### **Monitoring/Reporting Data Verification**

As a Public Water System, it is required to collect total coliform samples from sites that are representative of the water quality throughout the entire distribution system. To ensure that your sampling is comprehensive and accurate, the system is required to cycle through all sample sites listed on your bacteriological sample site plan [40 CFR 141.21]. Groundwater systems with a population greater than 4900 must collect samples on at least two different days of each month with a minimum of 7 days in between sample dates. [40 CFR 141.21(a)(4)]

If there have been any updates or changes to these sites, please notify your MDH district engineer.

For more guidance on bacteriological sampling:

<https://www.health.state.mn.us/communities/environment/water/docs/sampproc/tcguidancecom.pdf>



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**Monitoring/Reporting Data Verification**

The following applicable records are required to be maintained by the water supply system:

- a. Coliform bacteria results - 5 years
  - b. Chlorine residual results - 5 years
  - c. Chemical results - 10 years
  - d. Sanitary survey reports - 10 years
  - e. All lead and copper materials - 12 years
  - f. Consumer confidence reports - 3 years
  - g. Public Notices - 3 years
  - h. Fluoride quarterly results and monthly reports - 1 year
  - i. Turbidity results - 3 years
- [Minn. Rules 4720.0350]

No deficiencies observed.

**Water System Management/Operation**

It is required that all testable backflow prevention devices be maintained in good working condition. Devices or assemblies must be tested at the time of installation, repair, or relocation and be tested on an annual schedule thereafter. The device must be tagged with the date of inspection and signed by the certified inspector. Written record of testing and maintenance must be submitted to the public water supply within 30 days of testing. [Minn. Rules 4720.0025]

It is recommended that a list of all testable backflow prevention devices, their locations and maintenance records be maintained by the public water supply. [Minn. Rules, 4720.0025].

Engineering plans for new, modifications to, or additions to the water supply system, including watermains, are required to be properly submitted to the Minnesota Department of Health for review. All plans must be approved prior to the start of construction. [Minn. Rules 4720.0010]

It is recommended that a licensed Minnesota well contractor regularly evaluate the pump performance and conduct routine maintenance and repairs.

To ensure security, it is recommended that a daily check of critical system components be conducted, including confirmation that all doors and access hatches are locked.

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**Operator Compliance with State Requirements**

The certified operators are required to qualify themselves by attending waterworks operators training seminars offered throughout the state. Continuing education is valuable experience for anyone engaged in this field. The required contact hours in the previous 3 years for certification renewal are:

Class A 32 contact hours

Class B 24 contact hours

Class C 16 contact hours

Class D 8 contact hours

Class E 4 contact hours

[Minn. Rules 9400.1200]

No deficiencies observed.



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**Bacteriological Results and Chlorine Residuals**

<u>Date</u>	<u>Sampling Location</u>	<u>Chlorine Residual Free / Total (mg/L)</u>	<u>Coliform Bacteria</u>	<u>E.Coli</u>
01/21/2026	Well #7	/	Absent	
01/21/2026	Treatment Plant #1	0.34 / 0.53	Absent	
01/21/2026	Power Plant	0.36 / 0.51	Absent	
01/21/2026	City Shop	0.66 / 0.87	Absent	
01/21/2026	Well #8	/	Absent	
01/21/2026	Well #9	/	Absent	
01/21/2026	Treatment Plant #2	1.00 / 1.25	Absent	
01/21/2026	BP	0.83 / 1.06	Absent	