



Protecting, maintaining and improving the health of all Minnesotans

June 29, 2020

Hill City Council
c/o Diana McManigle, City Clerk
City Hall
P.O. Box 160
Hill City, Minnesota 55748-0160

Dear Council Members:

SUBJECT: Sanitary Survey Report for Hill City Public Water System (PWS), Aitkin County,
PWSID 1010011

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. George Casper was 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 320/223-7340.

Sincerely,

A handwritten signature in black ink, appearing to read "J Soltys", is written over a light blue horizontal line.

Jennifer Soltys
Drinking Water Protection
Midtown Square
3333 West Division Street, Suite 212



Protecting, maintaining and improving the health of all Minnesotans

St. Cloud, Minnesota 56301-4557

JS

Enclosures

cc: Water Superintendent



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



System Name: **Hill City**

PWSID: **1010011**

System Contact: **George Casper**

Survey Date: **06/15/2020**

Surveyor: **Jennifer Soltys**

PWS Type: **Community**

Contact Information

<u>Name</u>	<u>Address</u>	<u>Phone/Email</u>
Contact		
George Casper	City Hall P.O. Box 160 Hill City, MN 55748	Business Fax 218/697-2401 Business Phone 1 218/697-2301 Business Phone 2 218/244-0440, Ext. CELL Email Maintenance@hillcity-MN.com

Owner/Responsible Party

Hill City Council	c/o Diana McManigle, City Clerk City Hall P.O. Box 160 Hill City, MN 55748-0160	Business Fax 218/697-2401 Business Phone 1 218/697-2301 Email cityhall@hillcity-mn.com
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Financial

Hill City Council	c/o City Clerk Hill City Hall P.O. Box 160 Hill City, MN 55748-0160	Business Fax 218/697-2401 Business Phone 1 218/697-2301 Email cityhall@hillcity-mn.com
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Sample Bottles/General Correspondence

Hill City Water Superintendent	City Hall 125 Lake Avenue, PO Box 160 Hill City, MN 55748-0160	Business Phone 1 218/697-2301 Email maintenance@hillcity-MN.com
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Emergency Workday

George Casper		Cell Phone 218/244-0440 Email maintenance@hillcity-MN.com
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Consumer Confidence Report

Diana McManigle		Business Phone 1 218/697-2301 Email cityhall@hillcity-mn.com
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Classification Information

Owner Type:	Municipal	Population:	633
System Class:	D	Service Connections:	282
Service Area Characteristics:	Municipal	Class Points:	24

Certified Operators

<u>Name</u>	<u>Class</u>	<u>Expiration Date</u>	<u>Name</u>	<u>Class</u>	<u>Expiration Date</u>
Casper, George E.	D	11/30/2020	Jordan, Patrick L.	D	07/31/2022

Production Totals

Design Capacity:		Emergency Capacity:	210 Gallons per Minute
Average Daily:	48,000 Gallons	Storage Capacity:	175,000 Gallons
Highest Daily:	65,000 Gallons		



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Source Information

Well #2

Unique Well No.: 00229052	Source Type: Groundwater
Type: Well	Pump Capacity (gpm): 210
Status: Active	Pumping Rate (gpm): 210
Availability: Primary	Emergency Capacity: 210 Gallons per Minute
Year Constructed: 1952	Static Depth (ft):
Well Depth (ft): 106	Drawdown (ft):
Casing Depth (ft): 88	Pump Type: Vertical Turbine
Casing Diameter (in): 10	Vulnerable: Yes
Screen Length (ft): 21	
Aquifer: Quaternary Buried Artesian Aquifer	

Well #3

Unique Well No.: 00603694	Source Type: Groundwater
Type: Well	Pump Capacity (gpm): 200
Status: Active	Pumping Rate (gpm): 200
Availability: Primary	Emergency Capacity:
Year Constructed: 1997	Static Depth (ft):
Well Depth (ft): 200	Drawdown (ft): 198
Casing Depth (ft): 180	Pump Type: Submersible
Casing Diameter (in): 8	Vulnerable: Yes
Screen Length (ft): 20	
Aquifer: Quaternary Buried Artesian Aquifer	

Treatment Information

COMBINED DISCHARGE

Type: Treatment Plant
Status: Active
Availability: Primary

Source Water: Groundwater
Design Capacity: 210 Gallons per Minute
Emergency Capacity: 210 Gallons per Minute
Operating Rate: 210 Gallons per Minute

Treatment Objective

Disinfection
Fluoridation
Iron/Manganese Sequestration

Treatment Process Mechanism

Chlorine/Sodium hypochlorite
Fluoridation/Hydrofluosilicic acid
Stabilization/Inhibitors/Polyphosphates

Storage Information

Elevated 75000

Type: Storage-Elevated
Status: Active

Capacity: 75,000 Gallons
Availability: Primary
Chlorination:



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Storage Information

Ground 100000

Type: Storage-Ground

Status: Active

Capacity: 100,000 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>
	School	Active	
	Operators Residence	Active	
	City Hall	Active	
	Sunny's	Active	
	Roadside	Active	



MINNESOTA DEPARTMENT OF HEALTH
Section of Drinking Water Protection
Sanitary Survey Report



System Name: **Hill City**
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Survey Date: **06/15/2020**
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PWS Type: **Community**

Requirements and Recommendations

Water Source

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).

Pumps/Pump Facilities and Controls

It is recommended that the discharge piping be scraped clean and repainted.

No deficiencies observed.

Treatment

As a reminder, 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

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 recommended that the system install a mixer in the water storage tank to maintain water quality and reduce ice formation. Plans for mixers must be submitted to and approved by MDH before installation.

Distribution

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 a free chlorine residual of at least 0.2 to 0.5 milligrams per liter or a total chlorine residual of at least 1.0 milligrams per liter be maintained on all points of the distribution system.

As a reminder, all building services are required to be installed in accordance with the Minnesota Plumbing Code. [Minnesota Rules, Chapter 4715]



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Requirements and Recommendations

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]

It is recommended that the static and drawdown water levels be taken at least monthly and permanently recorded.

Water System Management/Operation

As a reminder, 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]

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.

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]



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Section of Drinking Water Protection
Sanitary Survey Report



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PWSID: 1010011	Surveyor: Jennifer Soltys
System Contact: George Casper	PWS Type: Community

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>
06/15/2020	Combined Discharge	/	Absent	
06/15/2020	City Shop	1.30 / 2.50	Absent	