



## MEMORANDUM

**TO:** Saint Paul City Council

**FROM:** Phillip A. Zavadil, City Manager

**CC:** David Joyner, Public Works Director; Shannon Mercurief, Public Works Administrative Assistant; Adrian Dirks, Water/Wastewater Operator; Monty Baker, Water/Wastewater Operator; Monique Baker, City Clerk

**DATE:** September 2, 2022

**RE:** Report on Emergency Repair of 6” Water Line on Sea View Street

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### **PROBLEM**

As the grass along the side of the road on Sea View Street was being cut the City Equipment Operator noticed pooling water along the side of the road after the grass was mowed and figured that there may be a broken water line.

### **KEY PERSONNEL**

The following City personnel were involved in the repair of the broken water line:

- Adrian Dirks, Water/Wastewater Operator
- John Kushin, Equipment Operator
- Jared Zacharof, Power Plant Operator
- Nicolai Kozloff, Equipment Operator
- Phillip Zavadil, City Manager

### **EQUIPMENT USED**

The following City equipment was used in the repair of the broken water line.

- #383 CAT 309 Excavator
- #382 CAT 926 Loader

### **ACTIONS TAKEN**

Friday, August 26, 2022

- The water was shut off to the 8” Old Town water distribution main at the Tank Valve House.



- I received a call from Shannon Mercurief, Public Works Administrative Assistant informing me that there is a water line break by her house and that the water needs to be shut off. Shannon asked if I could send out a NIXLE to let people know.
- I issued the following NIXLE to the community:

*Water Leak and Repair on Sea View Street*

*City crews discovered a water leak on Sea View Street. City will be shutting of the water main on this street to make repairs. Houses 20 -24 will not have running water while this repair is made. Please note that other houses in the area may not have running water while this repair is made.*

*Please avoid Sea View Street while City crews are making this repair.*

- Traffic cones were placed on both ends of Sea View Street to block the road off to traffic while the repairs to the water line were made.
- Locates were performed to locate the electrical lines along Sea View Street.
- Excavation began to find the broken water line. The coupler on the 6" cast iron water line between House 22 and 23 was missing.
- An attempt was made to locate the isolation valve along Sea View Street but was not successful.
- A 6" pipe repair clamp was used to rejoin the two pipes together.
- At approximately 18:30 the Old Town water main was turned back on.
- The water lines were bled on all Old Town through the hydrants until only clear water flowed out of the hydrants.
- Since the 8" main was closed at the Tank Valve House and pressure in this main line fell below 20 psi, the break on Sea View Street caused debris from the break location to be sucked into the 8" main.
- I went to review the procedures online for water main breaks. Due to the loss of pressure in the 8" main and the amount of turbidity in the lines I determined that I needed to contact the Alaska Department of Environmental Conservation Drinking Water Program to see if we would need to issue a boil water notice to the community.
- Around 20:30 I received an email from Ms. Christian the ADEC Drinking Water Program Manager that contained the Boil Water Notice (*see attached*) and the American Water Works Association procedures for disinfecting water mains.
- The Boil Water Notice was distributed via NIXLE and house to house.

Saturday, August 27, 2022

- Adrian and I contacted Ms. Christian in the morning to review the AWWA procedures for disinfecting water mains. After Ms. Christian spoke with an ADEC engineer she recommended that we increase the chlorine in the water system from 0.2 mg/L to 0.5 mg/L. Additionally, Ms. Christian directed us to collect coliform and E.coli samples from 3 different locations in the affected area and send them out on Sunday's plane to the testing lab in Anchorage.
- Main lines were checked again for debris in the lines by flushing some of the fire hydrants.

- Chlorine readings were taken at 4 locations in the distribution system to determine the starting levels, which we approximately 0.2 mg/L at each location.
- The controls on the chlorine injection system at the Treatment plant were adjusted to begin adding the recommended higher chlorine level to the higher level.

Sunday, August 27, 2022

- Three coliform and E.coli samples were collected and shipped on Ravn to get to the lab in Anchorage.

Monday, August 29, 2022

- The hole where the water break occurred was covered and the road surface brought back to the same grade.
- The lab was contacted to make sure they received the samples, and a RUSH was put on the results.
- Additional information on the Boil Water Notice (*see attached*) was distributed via NIXLE and house to house.

Tuesday, August 30, 2022

- The sample results arrived late afternoon and ADEC rescinded the Boil Water Notice (see attached).
- This notice was distributed via NIXLE and mailed to post office boxes.

Thursday, September 1, 2022

- Chlorine levels were adjusted to bring the level in the system back down to 0.2 mg/L.

**FUTURE CORRECTIVE ACTIONS**

While working on the repair of the broken water line and communication with the ADEC Drinking Water Program staff I determined the following corrective actions need to be taken for the next time the City has a broken water line:

- Prepare a written Standard Operating Procedure (SOP) for emergency water line repairs. The SOP will outline the necessary steps that need to be taken to make a repair safely and in timely manner.
- Seek funding to replace all the old cast iron water pipe that still remains in the water distribution system with new HDPE pipe.
- Identify and mark the locations of all the water distribution isolation valves so that next time a water line breaks, these valves can be located and shut off quickly.
- Reevaluate looping waterlines into each other. For example, Old Town main should not be looped into Harbor main, Ellerman or Ellerman Heights mains. This will prevent backflow and contamination into other main lines of the water distribution system.
- Install an exterior water spicket at the Tank Valve House to allow for filling of jugs directly from the water tanks in the event of future emergencies.

Thank you to John Kushin, Nicolai Kozloff, Jared Zacharof for their assistance with repairing the water line break. Special thanks to Adrian Dirks for his dedication and performance during this emergency.

# **BOIL WATER NOTICE**

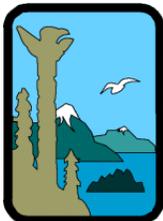
**Due to a main line break and loss of pressure, the  
St. Paul Public Water System, PWSID AK2260286**

**is being placed on a BWN until the issues can be resolved and the system is in  
compliance with regulatory requirements.**

**This BOIL WATER NOTICE is in effect from August 26, 2022 until further notice.**

## **Boil water at least 2 minutes before drinking**

**For more information, please call Cindy Christian at 907-451-2138 or the  
Alaska Dept. of Environmental Conservation office 907-451-2108 or 1-  
800-770-2137.**



Department of Environmental Conservation  
610 University Avenue, Fairbanks AK 99709-3643

# Public Health Advisory – Drinking Water Warning

Public Water System ID#: AK \_\_\_\_\_

## **BOIL YOUR WATER BEFORE USING**

The Alaska Department of Environmental Conservation (DEC) Drinking Water Program has issued this public health advisory notice for the \_\_\_\_\_ public water system because DEC has been notified that there was a loss/reduction of water pressure below 20 psi on \_\_\_\_\_.

### **What should I do? What does this mean?**

**DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST.** Bring all water to a boil, including alternate sources of water such as creeks, rain water, etc. Let it boil for two minutes, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until further notice. Boiling kills bacteria and other organisms in the water. Water can be used for handwashing without being boiled.

- *The water may have been impacted by fecal coliform or E. coli, which are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.*
- The symptoms above are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice. People at increased risk should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

### **What is being done?**

After repairs/maintenance have been completed we will collect three special total coliform bacteria samples and send them to a certified lab for analysis. These samples will help us determine if a problem exists with our water system. If any of the samples are positive for total coliform or E. coli bacteria, we will work to disinfect the water system, flush it, and collect additional samples to verify our system is free from bacterial contamination.

You should not use all drinking water for any potable purpose without boiling it first until further notice. We will notify you when the issue has been resolved and the boil water notice has been rescinded by DEC.

For more information, please contact the owner at SAINT PAUL CITY OFFICE\_ at \_ 907-546-3100\_ or the DEC Office at 907-269-7653.

*\*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.\**

This notice is being sent to you by the \_\_\_\_\_ public water system.  
State water system ID# AK \_\_\_\_\_ Date distributed: Date: 8/26/2022



**State of Alaska  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**



**Certification of Public Notice**

**System Name:** SAINT PAUL **PWSID:** 2-260286  
**For Violation:** \_\_\_\_\_  
**Occurring On:** 8/26/2022

The public water system named above hereby confirms that Public Notice has been provided to the consumers. Further, the system certifies that the public notice meets the requirements set by the Alaska Department of Environmental Conservation as required under Article 10 of 18 AAC 80.

**Certified by:** Name: Phillip A. Zavadil  
 Title: City Manager  
 Phone: 907-340-3994  
 Signature: \_\_\_\_\_

**The Public Notice was:**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Hand delivered to consumers  | <input type="checkbox"/> Mailed to consumers with utility bill  |
| <input type="checkbox"/> Published in the local paper/newsletter   | <input type="checkbox"/> Mailed to consumers separately         |
| <input type="checkbox"/> Broadcasted over the radio/TV   | <input type="checkbox"/> Sent electronically to consumers       |
| <input type="checkbox"/> Broadcasted over the VHF radio  | <input type="checkbox"/> Included in Consumer Confidence Report |
| <input checked="" type="checkbox"/> Posted throughout the community / establishment in conspicuous locations |   |
| <input checked="" type="checkbox"/> Other NIXLE and City Facebook page.                                      |   |

**After the Public Water System learned of the violation, Public Notification occurred:**

- |   |                    |
|---|--------------------|
| <input checked="" type="checkbox"/> within 24 hours | (Tier 1 Violation) |
| <input type="checkbox"/> within 30 Days within      | (Tier 2 Violation) |
| <input type="checkbox"/> 12 months                  | (Tier 3 Violation) |
| <input type="checkbox"/> more than 12 months        |                    |

**The Public Notice contained the following (unless otherwise specified in the regulations):**

- 1) A description of the violation or situation, including contaminant levels, if applicable.
- 2) When the violation or situation occurred.
- 3) Any potential adverse health effects.
- 4) The population was at risk.
- 5) Whether alternative water supplies should be used.
- 6) What actions consumers should take.
- 7) What the system is doing to correct the violation or situation.
- 8) When the water system expects to return to compliance or resolve the situation.
- 9) The name, business address, and phone number of the water system owner or operator.
- 10) A statement encouraging distribution of the notice to others, where applicable.

Mail or fax this certification form along with a copy of the Public Notice back to the Department when the public notice requirement has been met.

**Fax Number:** 907-269-7650

**Address:** Alaska Department of Environmental Conservation  
 Division of Environmental Health  
 Drinking Water Program  
 555 Cordova Street  
 Anchorage, AK 99501



THE STATE  
of **ALASKA**  
GOVERNOR MICHAEL J. DUNLEAVY

**Department of Environmental  
Conservation**

DIVISION OF ENVIRONMENTAL HEALTH  
Drinking Water Program

555 Cordova Street  
Anchorage, Alaska 99501  
Direct: 907.269-7653  
Fax: 907.269-7650  
Leah.vansandt@alaska.gov

August 30, 2022

Mr. Phil Zavadil  
City Manager  
P.O. Box 901  
Saint Paul, AK 99660  
Email: [pazavadil@stpaulak.com](mailto:pazavadil@stpaulak.com)

RE: Rescind Boil Water Notice for Saint Paul, PWSID AK2260286, Effective 8/30/2022  
Community Public Water System, Groundwater Sources

Dear Mr. Zavadil,

On 8/26/2022, the Department issued a Boil Water Notice to Saint Paul public water system, ID# 260286, due to reported water main break and water pressure loss/reduction below 20 psi. After repairs and required disinfection and flushing, special coliform samples were monitored from the impacted areas. On 8/30/2022, our department received lab results of the three coliform samples monitored from the representative sites of Saint Paul distribution system. Results are all negative for coliform bacteria. Also, the reported water pressure is reliably above 20 psi.

**Based on this information, we are rescinding the Boil Water Notice, effective immediately.**

We appreciate your administration's prompt actions to resolve this matter and to protect the public health by serving safe drinking water.

If you have questions regarding this letter, please contact me at 907-269-7653 or by email at [leah.vansandt@alaska.gov](mailto:leah.vansandt@alaska.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Leah A. Van Sandt".

Leah A. Van Sandt  
Environmental Program Specialist

Cc: Heather Murray, DEC/DW Southcentral Program Manager, [heather.murray@alaska.gov](mailto:heather.murray@alaska.gov)  
DEC BWN email group