



Water System Pressure Loss and Boil Water Advisory

After Action Report

Incident Dates: July 9–12, 2026

Report Date: July 17, 2026

Prepared By:

Jacob Schillander

City Administrator

Acknowledgements

The City of Maple Plain acknowledges the efforts and assistance provided by the following organizations and individuals during the response, recovery, investigation, and corrective action process associated with the July 2026 water system pressure loss incident.

City of Maple Plain

- Jacob Schillander, City Administrator
- Julie Maas-Kusske, Mayor
- Kevin Larson, Assistant City Administrator
- Maple Plain City Council

PeopleService

- Jeremy Anderson, Water/Wastewater Lead Operator III
- David Medina, Utility Operations Representative
- Greg Stang, Regional Manager

Total Control Systems (TCS)

- Kraig LaFreniere, SCADA Systems Specialist

Quality Flow Systems

- Matt Yorks

Bolton & Menk

- Matt Baumann, Assistant City Engineer
- John Graupmann, Municipal Engineer

Minnesota Department of Health

- Indran Kamalanathan, Compliance Engineer

West Hennepin Public Safety

- Chief Matt DeRose
- Officer Nick Eldred

Hennepin County Dispatch

Engel Water Testing, Inc.

Valley Rich

Report Purpose

This report documents the July 2026 water system pressure loss event, emergency response activities, public communications, laboratory testing, system investigation, corrective actions, and future recommendations.

The objectives of this report are to:

- Document the events that occurred.
- Identify root causes and contributing factors.
- Evaluate emergency response efforts.
- Evaluate public communication efforts.

- Document corrective actions already implemented.
- Establish recommendations for future improvements.
- Preserve an official record of the incident for future reference.

Report Organization

Section	Description
Executive Summary	Overview of the incident and key findings
Introduction and Background	Background information regarding the utility system
Incident Overview	Summary of incident progression
Incident Timeline	Chronological summary of events
Root Cause Analysis	Primary causes of the incident
Contributing Factors	Supporting conditions that contributed to the event
Disabled Alarm Investigation	Review of alarm management findings
Laboratory Testing Results	Water quality testing information
Public Notification and Outreach	Summary of communication efforts
Corrective Actions Implemented	Actions already completed
Policy Recommendations and Implementation	Long-term improvement recommendations
Implementation Considerations	Staffing, cost, communication, and public engagement considerations
Conclusion	Overall findings and lessons learned

Appendices

Appendix	Title
Appendix A	Definitions and Terminology
Appendix B	Organizations, Personnel, Roles, and Technical Expertise
Appendix C	Complete Incident Timeline
Appendix D	Total Control Systems (TCS) Investigation Report Summary
Appendix E	PeopleService Incident Report Summary
Appendix F	Engel Water Testing Laboratory Results
Appendix G	Public Notifications, Press Releases, and Public Communications

Certification

I certify that this report represents the best information available to the City of Maple Plain as of July 17, 2026, based upon information provided by PeopleService, Total Control Systems, Quality Flow Systems, Bolton & Menk, the Minnesota Department of Health, Engel Water Testing, City records, and direct observations made during the incident response and subsequent investigation.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'JWSchillander', with a stylized flourish at the end.

Jacob W. Schillander

City Administrator
City of Maple Plain

July 17, 2026



WATER SYSTEM PRESSURE LOSS AND BOIL WATER ADVISORY

AFTER ACTION REPORT

Incident Dates: July 9–12, 2026

Report Date: July 16, 2026

Prepared By:

Jacob Schillander

City Administrator

City of Maple Plain

Executive Summary

Incident Overview

Between July 9 and July 12, 2026, the City of Maple Plain experienced a water system incident that resulted in the loss of pressure within the municipal water distribution system and the issuance of a precautionary boil water advisory. The advisory remained in effect until laboratory testing confirmed that the City's drinking water met all applicable state and federal drinking water standards.

The incident originated from a radio communication failure between the Water Tower/Well No. 1 site and the Water Treatment Facility. This failure adversely affected the normal operation of the system and contributed to the depletion of the Water Tower. The incident ultimately resulted in a loss of system pressure and activation of emergency response procedures.

The City coordinated response activities with PeopleService, Total Control Systems (TCS), Quality Flow Systems, Bolton & Menk, the Minnesota Department of Health (MDH), the West Hennepin Police Department, Hennepin County Dispatch, and Engel Water Testing.

Root Cause Summary

The investigation determined the primary cause of the incident was a failure of radio communications between the Water Tower/Well No. 1 site and the Water Treatment Facility.

The investigation further determined that communication failure alarms had been disabled within the SCADA system prior to the incident. As a result, operators did not receive automatic notification when communications were lost.

The investigation also revealed that Water Tower levels began declining on July 9, 2026. During a post-incident review, TCS demonstrated that the declining Water Tower level was visible in SCADA trend data. Had routine review of the trend information occurred, the abnormal operating conditions may have been identified before system pressure was lost.

Contributing Factors Summary

The investigation identified five primary contributing factors:

1. Radio communication failure.
2. Disabled communication failure alarms.
3. Lack of routine review of Water Tower level trends.
4. Prior radio communication failures that were not communicated to the City.
5. Limited SCADA event-log retention.

Prior radio communication failures occurred on April 22, 2026 and June 28, 2026. The City was not informed of these failures and therefore had no indication that recurring communication issues existed within the communications infrastructure.

Public Communication Summary

The City utilized multiple communication methods throughout the incident response, including:

- Emergency Notification System alerts.
- Website updates.
- Facebook updates.
- Press releases.
- IPAWS emergency alerts.

- Coordination with MDH.
- Coordination with public safety agencies.

Critical public notifications included:

- July 11, 2026 – 10:59 AM – Citywide water outage notification.
- July 11, 2026 – 11:36 AM – Boil water advisory posted to the website and Facebook.
- July 11, 2026 – 12:13 PM – Emergency Notification issued.
- July 11, 2026 – 12:32 PM – IPAWS request initiated.
- July 11, 2026 – 4:45 PM – Updated advisory posted.
- July 11, 2026 – 5:52 PM – Follow-up notification and press release distributed.
- July 12, 2026 – 4:19 PM – Boil water advisory lifted.

Laboratory Results Summary

Water quality testing was performed by Engel Water Testing, Inc., Minnesota Certified Laboratory No. 027-003-105.

Three bacteriological samples were collected on July 11, 2026 from:

- Water Tower
- Maple Plain Apartments
- Bryantwood Apartments

All three samples tested negative for coliform bacteria and met all MDH and EPA drinking water standards. Results were analyzed on July 12, 2026 and authorized the lifting of the advisory.

Corrective Actions Summary

Corrective actions already implemented include:

- Re-enabling communication alarms.
- Adding the City Administrator to critical notifications.
- Modifying SCADA programming to provide pressure-based fallback operation.
- Implementing alarm timeout and reactivation protocols.
- Developing monthly alarm verification procedures.
- Implementing daily SCADA trend reviews.
- Expanding review of event-log retention.
- Improving communication and escalation procedures.

Policy Recommendations Summary

This report recommends:

- Cellular communication redundancy.
- Expanded alarm management procedures.
- Enhanced event-log retention.
- Individual user account management.
- Formal communication escalation requirements.
- Independent utility system review and audit.

Executive Summary Conclusion

The July 11, 2026 water pressure loss incident resulted from a radio communication failure compounded by disabled communication alarms, inadequate awareness of declining Water Tower levels, and the absence of communication regarding prior radio failures. No bacterial contamination was detected within the water system, service was restored, and multiple corrective actions have already been implemented. Continued implementation of the recommendations contained in this report will significantly improve the reliability, resiliency, accountability, and monitoring capabilities of the City's water system.

Introduction and Background

The City of Maple Plain operates a municipal water utility consisting of groundwater wells, a Water Treatment Facility, a Water Tower, a water distribution system, and associated Supervisory Control and Data Acquisition (SCADA) infrastructure.

Daily operation of the City's water system is contracted through PeopleService. Technical support for SCADA operations is provided by Total Control Systems (TCS), while engineering support is provided through Bolton & Menk.

The purpose of this report is to document the July 2026 incident, identify root causes and contributing factors, evaluate public communication and emergency response efforts, summarize corrective actions already implemented, and recommend additional policy and operational improvements.

Incident Timeline Summary

The timeline documents approximately three days of activity from the onset of declining Water Tower levels through the lifting of the precautionary boil water advisory.

The timeline demonstrates that:

- Water Tower levels began declining July 9, 2026.
- System pressure was lost July 11, 2026.
- The Water Tower was refilled and pressure restored July 11, 2026.
- Laboratory testing was completed July 12, 2026.
- The advisory was lifted July 12, 2026.

The timeline also demonstrates that while communication alarms were disabled, observable indicators existed within SCADA trend data that may have allowed earlier identification of the issue.

A complete timeline is included in Appendix C.

TCS Investigation Overview

Following restoration of service, the City requested that Total Control Systems conduct a review of:

- Radio communications.
- SCADA alarm configurations.
- Historical trend data.
- Alarm history.
- Event logs.
- System redundancy and operational controls.

The findings of this investigation form the basis for the Root Cause Analysis, Contributing Factors, and Disabled Alarm Investigation sections of this report.

Root Cause Analysis

Overview

The investigation determined that the incident was not caused by a failure of the Water Tower pressure transducer, water treatment equipment, groundwater wells, or water quality processes.

Instead, the incident resulted from a combination of communication system failures, disabled alarms, and operational oversight that allowed declining Water Tower levels to go unaddressed until system pressure was ultimately lost.

Primary Root Cause: Radio Communication Failure

The primary technical cause of the incident was a failure of the radio communication system connecting the Water Tower/Well No. 1 site and the Water Treatment Facility.

During troubleshooting, TCS determined that the Water Tower pressure transducer was functioning correctly and that Water Tower level information was still being measured locally. Investigation revealed that the radio communication equipment responsible for transmitting information between facilities had faulted and was no longer communicating properly.

This communication failure prevented normal system coordination and ultimately allowed the Water Tower to continue draining without replenishment.

Secondary Root Cause: Disabled Communication Failure Alarms

TCS identified active communication failure alarms that should have alerted operators when communications were lost. However, those alarms had been disabled and therefore generated no notification.

Alarm history demonstrated that communication alarms were functioning on June 28, 2026. The alarms were not observed again until July 11, 2026, when TCS re-enabled them during troubleshooting.

Because the alarms were disabled, operators received no automatic warning that communications had been lost.

Operational Monitoring Findings

TCS demonstrated that Water Tower levels began declining on July 9, 2026 and that the decline remained visible within SCADA trend data.

While communication alarms were disabled, the available trend data provided a visible indication that the Water Tower was not operating normally. Routine review of those trends would likely have identified the developing problem before the Water Tower was depleted.

Communication of Prior Radio Failures

The investigation also determined that radio communication failures occurred on April 22, 2026 and June 28, 2026.

The City was not informed that these failures had occurred and therefore had no opportunity to investigate recurring issues or pursue corrective actions before the July incident.

Root Cause Conclusion

The incident resulted from multiple interconnected failures rather than a single equipment malfunction. The primary cause was the radio communication failure. The incident was compounded by disabled communication alarms, the lack of routine review of declining Water Tower trends, and the failure to communicate prior radio failures to the City.

Contributing Factors

Overview

The investigation identified several conditions that increased the likelihood, severity, and duration of the event.

1. Disabled Communication Failure Alarms

Communication failure alarms associated with the Water Tower, Well No. 1, and Lift Station communications were disabled prior to the incident.

The loss of alarm functionality removed one of the primary automated safeguards intended to notify operators of communication failures.

2. Lack of Routine Water Tower Trend Monitoring

Water Tower levels began declining on July 9, 2026 and the decline was visible within SCADA trend data.

Routine review of trend information likely would have identified the abnormal condition before system pressure was lost.

3. Prior Radio Communication Failures Were Not Communicated to the City

Historical alarm records documented communication failures on April 22 and June 28, 2026.

These failures were not communicated to City staff, limiting opportunities for proactive intervention.

4. Limited SCADA Event Log Retention

The SCADA system retained event logs only back to July 9, 2026.

As a result, investigators could not definitively determine when alarms were disabled or which user performed the action.

5. Aging Radio Communication Infrastructure

TCS advised that portions of the existing communications system are aging and increasingly difficult to support, prompting recommendations for cellular communication redundancy and modernization.

Contributing Factors Conclusion

Collectively, these factors reduced the City's ability to identify and respond to the developing issue. They provide the basis for the corrective actions and policy recommendations included later in this report.

Disabled Alarm Investigation

On July 16, 2026, TCS completed a review of available SCADA alarm records and event history.

The review determined:

- The event log only retained records back to July 9, 2026.
- Communication alarms for the Water Tower and Well No. 1 were functioning on June 28, 2026.
- The next occurrence of those alarms was July 11, 2026 at approximately 2:43 PM when TCS re-enabled them.

- Communication alarms were likely disabled sometime between June 28, 2026 and July 9, 2026.
- Lift Station communication alarms appear to have been disabled sometime between November 4, 2025 and July 9, 2026.

The review confirms that disabled communication alarms were a significant contributing factor to the incident.

Laboratory Testing Results

Following restoration of pressure, bacteriological samples were collected and analyzed by Engel Water Testing, Inc.

Laboratory Test No.	Sample Location	Collection Time	Coliform Result	Chlorine Residual
26-31058	Water Tower	July 11, 2026 – 1:45 PM	Negative	5.18 ppm
26-31059	Maple Plain Apartments	July 11, 2026 – 1:28 PM	Negative	0.10 ppm
26-31060	Bryantwood Apartments	July 11, 2026 – 1:55 PM	Negative	0.08 ppm

All samples tested negative for coliform bacteria and met MDH and EPA standards.

Water Quality Results

Engel Water Testing analyzed all samples on July 12, 2026.

Laboratory results confirmed that bacterial contamination was not present within the municipal water system. Based upon those findings, MDH authorized the City to lift the precautionary boil water advisory on July 12, 2026.

Public Notification and Community Outreach

Public Notification Process

The City utilized a layered communication strategy consisting of emergency notifications, website updates, Facebook posts, press releases, IPAWS alerts, and coordination with public safety agencies.

Communications Timeline

July 11, 2026

- 10:59 AM – Citywide Water Outage Notification
- 11:36 AM – Boil Water Advisory posted to website and Facebook
- 12:13 PM – Emergency Notification issued
- 12:32 PM – IPAWS activation requested
- 4:45 PM – Updated advisory posted
- 5:52 PM – Follow-up notification and press release distributed

July 12, 2026

- 4:19 PM – Boil Water Advisory lifted and notifications distributed

The City coordinated closely with the West Hennepin Police Department, Hennepin County Dispatch, and MDH to ensure residents and businesses received timely information.

Corrective Actions Implemented

Overview

The City, PeopleService, and TCS have already initiated several corrective actions intended to improve monitoring, accountability, communication, and system reliability.

Actions Implemented

- Re-enabled communication failure alarms.
- Added the City Administrator to critical low-pressure notifications.
- Implemented pressure-based fallback operations.
- Implemented alarm-disable time limits and automatic reactivation.
- Developed monthly alarm verification procedures.
- Established daily SCADA trend reviews.
- Implemented daily documentation of Water Tower levels and communication status.
- Initiated review of SCADA event-log retention settings.

- Developed formal communication escalation procedures.
- Initiated audit review of alarm management activity.

These actions are expected to improve operational awareness, alarm reliability, communication, accountability, and overall system resiliency.

Policy Recommendations and Implementation

Overview

The following recommendations are intended to improve reliability, resiliency, monitoring, documentation, and emergency response capabilities.

Recommendation	Priority	Timeline
Daily SCADA Monitoring Program	Immediate	30 Days
Alarm Management Program	Immediate	30 Days
Event Log Retention Expansion	High	60 Days
Individual User Accounts	Immediate	Completed 7-12-26
Communication Escalation Procedures	High	30 Days
Communications Infrastructure Upgrades	High	Cellular completed 7-12-26
Emergency Communications Plan	High	60 days
Independent Utility Systems Audit	Medium	2026–2027

Key Recommendations

1. Formal daily SCADA monitoring and documentation program.
 2. Comprehensive alarm management program.
 3. Expanded event-log retention.
 4. Individual user credentials and accountability controls.
 5. Formal utility communication escalation procedures.
 6. Communications infrastructure modernization with cellular redundancy.
 7. Independent utility systems audit.
 8. Formal emergency response and public communications plan.
-

Implementation Considerations

Staffing Requirements

Successful implementation will require coordination among:

- City Staff
- PeopleService
- Total Control Systems
- Bolton & Menk

Financial Impacts

Potential costs include:

- Communications upgrades.
- SCADA modifications.
- Consultant support.
- Independent audits.
- Staff training.

Community Communication

Residents should be informed of implementation efforts through:

- City Council meetings.
- Website updates.

Potential Challenges

Potential challenges include:

- Budget availability.
- Equipment lead times.
- Contractor availability.
- Legacy system limitations.

Success Metrics

Implementation success should be measured using:

- Monthly alarm audits.
- Daily trend review documentation.
- Communication failure reporting.

- Annual emergency response testing.
 - Reduction of recurring communication failures.
-

Conclusion

The July 11, 2026 water pressure loss incident was caused by a radio communication failure between the Water Tower/Well No. 1 site and the Water Treatment Facility, combined with disabled communication alarms that prevented notification of the failure.

The investigation further determined that declining Water Tower levels were visible in SCADA trend data beginning July 9, 2026, that prior radio communication failures were not communicated to the City, and that limited event-log retention restricted investigators' ability to determine exactly when alarm settings were modified.

No bacterial contamination was detected within the water system. Service was restored, the boil water advisory was lifted following successful laboratory testing, and multiple corrective actions have already been implemented.

Continued implementation of the recommendations contained in this report will significantly improve the reliability, resiliency, accountability, and monitoring capabilities of the City's water utility system.

Certification

I certify that this report represents the best information available to the City of Maple Plain as of July 16, 2026, based upon information provided by PeopleService, Total Control Systems, Bolton & Menk, the Minnesota Department of Health, Engel Water Testing, City records, and direct observations made during the incident response and subsequent investigation.

Respectfully Submitted,



Jacob W. Schillander

City Administrator

City of Maple Plain- July 16, 2026

APPENDICES

Supporting Documentation and Reference Materials

The following appendices provide supporting documentation, technical references, investigation materials, laboratory reports, public notifications, and background information referenced throughout this report.

Appendix	Title
Appendix A	Definitions and Terminology
Appendix B	Organizations, Personnel, Roles, and Technical Expertise
Appendix C	Complete Incident Timeline
Appendix D	Total Control Systems (TCS) Investigation Report Summary
Appendix E	PeopleService Incident Report Summary
Appendix F	Engel Water Testing Laboratory Results
Appendix G	Public Notifications, Press Releases, and Public Communications

Purpose of the Appendices

The appendices provide detailed supporting information used in the preparation of this report, including technical findings, operational records, laboratory testing results, public communications, and information provided by contractors, consultants, regulators, and utility operators.

These materials are intended to:

- Support the findings contained within the report.
 - Provide transparency regarding the investigation process.
 - Document the incident response and recovery efforts.
 - Preserve records for future reference.
 - Assist elected officials, regulators, staff, and residents in understanding the circumstances surrounding the July 2026 water pressure loss incident.
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Appendix A

Definitions and Terminology

Purpose of Appendix A

This appendix provides plain-language definitions of technical terms, organizations, equipment, systems, and processes referenced throughout this report. The intent is to help residents, elected officials, stakeholders, and other readers understand the terminology used in the investigation and why each item is relevant to the July 2026 water system incident.

Alarm

An alarm is an automated notification generated by the SCADA system when a specific condition occurs, such as a communication failure, low pressure event, equipment malfunction, or other abnormal operating condition.

Why it is important:

Alarms are intended to alert operators to developing problems before they become emergencies. The investigation determined that communication alarms had been disabled prior to the incident, preventing operators from receiving notification that communications had been lost.

Alarm Disablement

Alarm disablement occurs when an alarm is intentionally or unintentionally turned off within the SCADA system.

Why it is important:

The investigation determined that communication alarms associated with the Water Tower and Well No. 1 communications were disabled before the July 11, 2026 incident. This prevented operators from receiving notification when communications failed.

Bacteriological (Bac-T) Sample

A bacteriological sample is a water sample collected and tested for the presence of bacteria, including coliform bacteria and E. coli.

Why it is important:

After a loss-of-pressure event, MDH requires bacteriological testing to verify that contamination has not entered the water distribution system before a boil water advisory may be lifted.

Boil Water Advisory

A boil water advisory is a precautionary public notification issued when there is an increased possibility that contaminants may have entered the drinking water system.

Why it is important:

The City issued a boil water advisory on July 11, 2026 following the loss of system pressure.

Chlorine Residual

Chlorine residual is the amount of chlorine remaining in drinking water after treatment and disinfection.

Why it is important:

Maintaining an adequate chlorine residual helps ensure water remains disinfected as it travels through the distribution system.

City Water Distribution System

The City Water Distribution System consists of all water mains, service lines, valves, hydrants, Water Tower facilities, and related infrastructure used to deliver drinking water to residents and businesses.

Why it is important:

The loss-of-pressure event affected the City's distribution system and resulted in a precautionary boil water advisory.

Communication Failure

A communication failure occurs when information can no longer be exchanged between two pieces of equipment or facilities.

Why it is important:

The primary cause of the incident was a communication failure between the Water Tower/Well No. 1 site and the Water Treatment Facility.

Communication Failure Alarm

A communication failure alarm is a SCADA-generated notification that alerts operators when communications between facilities or equipment have been interrupted.

Why it is important:

These alarms were disabled prior to the incident and did not notify operators when communications were lost.

Distribution System Pressure

Distribution system pressure is the water pressure maintained throughout the municipal water system.

Why it is important:

Water pressure must be maintained to ensure reliable water service and to reduce the risk of contaminants entering the drinking water system.

Emergency Notification System

The City's emergency notification system is an electronic communication platform used to send alerts and emergency information to residents, businesses, and other subscribers.

Why it is important:

The City used this system throughout the incident to notify residents of the boil water advisory and subsequently advise when the advisory had been lifted.

Engel Water Testing, Inc.

Engel Water Testing, Inc. is a Minnesota-certified laboratory that performs drinking water testing and analysis.

Why it is important:

Engel Water Testing analyzed all bacteriological samples collected following the incident and confirmed that the City's drinking water met applicable safety standards.

EPA (Environmental Protection Agency)

The United States Environmental Protection Agency is the federal agency responsible for establishing and enforcing drinking water regulations.

Why it is important:

Laboratory results were evaluated against EPA drinking water standards before the advisory was lifted.

Groundwater Well

A groundwater well is a drilled facility used to pump groundwater from underground aquifers for treatment and distribution.

Why it is important:

The City utilizes groundwater wells as its primary drinking water source.

Hennepin County Dispatch

Hennepin County Dispatch serves as the regional emergency communications center that coordinates emergency notifications and public safety communications.

Why it is important:

Hennepin County Dispatch assisted the West Hennepin Police Department with issuance of the IPAWS emergency alert.

IPAWS (Integrated Public Alert and Warning System)

IPAWS is the federal emergency notification system managed by FEMA that distributes emergency alerts through cellular phones, radio, television, and other communication channels.

Why it is important:

The City utilized IPAWS during the incident to maximize public awareness of the boil water advisory.

Lift Station

A lift station is a pumping facility that moves wastewater from lower elevations to higher elevations so it can continue flowing through the sanitary sewer collection system.

Why it is important:

Lift Station communication alarms were also found to be disabled during the investigation, indicating broader alarm management concerns.

Loss-of-Pressure Event

A loss-of-pressure event occurs when pressure within a water distribution system falls below acceptable operating levels.

Why it is important:

The July 11, 2026 incident resulted in a loss of system pressure, triggering emergency response procedures and issuance of the boil water advisory.

Minnesota Department of Health (MDH)

The Minnesota Department of Health is the state agency responsible for regulating public drinking water systems.

Why it is important:

MDH provided guidance throughout the incident and authorized lifting the boil water advisory after laboratory results were reviewed.

PeopleService

PeopleService is the City's contracted utility operator responsible for day-to-day operation of the Water Treatment Facility, wastewater collection system, and related utility infrastructure.

Maple Plain Representatives

- Jeremy Anderson
- David Medina
- Greg Stang

Why it is important:

PeopleService personnel led utility response activities and coordinated water sampling, restoration, and operational troubleshooting efforts during the incident.

Pressure Transducer

A pressure transducer is an instrument that converts pressure readings into electronic signals that can be transmitted to the SCADA system.

Why it is important:

The pressure transducer was initially suspected to have failed; however, the investigation ultimately determined the transducer was functioning correctly.

Radio Communication System

The radio communication system is the infrastructure used to transmit operational information between utility facilities.

Why it is important:

Failure of the radio communication system was identified as the primary initiating event of the incident.

SCADA (Supervisory Control and Data Acquisition) System

The SCADA system is the computerized monitoring and control system used to operate, monitor, and manage utility infrastructure.

Why it is important:

The SCADA system collected operational data, generated alarms, displayed Water Tower trends, and served as the primary monitoring platform involved in the incident.

Total Control Systems (TCS)

Total Control Systems (TCS) is the City's SCADA integrator and automation contractor responsible for system controls, programming, communication systems, and technical support.

Representative Involved

- Kraig

Why it is important:

TCS conducted the post-incident investigation, identified the communication failure, restored alarm functionality, reviewed alarm history, and recommended multiple corrective actions.

Trend Data

Trend data refers to historical graphical information collected and displayed by the SCADA system.

Why it is important:

TCS demonstrated that Water Tower levels began declining on July 9, 2026 and that the declining trend was visible within the SCADA system prior to the loss-of-pressure event.

Water Tower

The Water Tower is an elevated water storage facility that maintains pressure throughout the distribution system and provides water storage for peak demands and emergency situations.

Why it is important:

The Water Tower gradually drained between July 9 and July 11, 2026 and ultimately became depleted, resulting in the loss-of-pressure event.

Water Treatment Facility

The Water Treatment Facility is the municipal facility that treats groundwater, removes naturally occurring contaminants, disinfects drinking water, and distributes water throughout the community.

Why it is important:

The Water Treatment Facility is the primary operational facility involved in water production and distribution and was directly affected by the communication failure.

Well No. 1

Well No. 1 is one of the City's groundwater well facilities and serves as a communication and control point associated with the Water Tower.

Why it is important:

The communication system connecting Well No. 1 and the Water Tower to the Water Treatment Facility experienced the radio communication failure identified during the investigation.

WIN911

WIN911 is the automated notification system used to send alarm notifications to utility operators.

Why it is important:

The first indication of the incident occurred when a WIN911 low-pressure notification was received on July 11, 2026 at approximately 8:26 AM.

Appendix A Conclusion

The terms defined in this appendix represent the primary systems, equipment, agencies, organizations, and technical concepts referenced throughout this report. Understanding these definitions will assist readers in interpreting the investigation findings, corrective actions, and policy recommendations contained within this report.

Appendix B

Organizations, Personnel, Roles, and Technical Expertise

Purpose of Appendix B

This appendix identifies the organizations, agencies, contractors, consultants, laboratories, and personnel involved in the City's response to the July 2026 water pressure loss incident. It summarizes each organization's role, responsibilities, and technical expertise related to the incident response, investigation, corrective actions, and future recommendations.

Understanding the responsibilities and expertise of each participant provides context for the findings contained within this report and documents the collaborative effort undertaken to restore service, protect public health, investigate the incident, and develop long-term improvements.

City of Maple Plain

Organization Overview

The City of Maple Plain owns and operates the municipal water utility system, including the Water Treatment Facility, Water Tower, water distribution infrastructure, and associated utility assets.

The City is responsible for utility oversight, emergency management, public communications, regulatory coordination, capital planning, and strategic decision-making.

Responsibilities During the Incident

The City was responsible for:

- Emergency response coordination.
- Public communications and resident notifications.
- Coordination with regulatory agencies.
- Coordination with contractors, consultants, and utility operators.
- Incident management and documentation.

- Issuance of public notifications and advisories.
- Oversight of corrective actions and system improvements.
- Communication with the City Council and stakeholders.

Representatives Involved

Jacob Schillander

City Administrator

Primary responsibilities included:

- Coordinating emergency response activities.
- Communicating with utility operators and consultants.
- Managing communications with City Council.
- Coordinating public notifications and press releases.
- Coordinating regulatory communications.
- Reviewing incident findings.
- Preparing the After Action Report.

Julie Maas-Kusske

Mayor

Primary responsibilities included:

- Providing elected leadership during the incident.
- Receiving operational updates from City staff.
- Assisting with public confidence and community communications.
- Supporting emergency response decision-making.
- Participating in post-incident review discussions.

Kevin Larson

Assistant City Administrator

Primary responsibilities included:

- Assisting with incident coordination and administration.
- Supporting public communication efforts.
- Assisting with operational documentation.
- Supporting implementation of public notifications and response activities.

- Assisting with follow-up corrective action planning and implementation.
-

PeopleService

Organization Overview

PeopleService is the City's contracted utility operations provider responsible for the day-to-day operation, monitoring, maintenance, and regulatory compliance of the City's water and wastewater systems.

PeopleService provides licensed operators responsible for:

- Water production and treatment.
- Distribution system monitoring.
- Regulatory compliance.
- Utility maintenance.
- Emergency response.
- Water quality monitoring.

Certifications and Technical Expertise

Personnel operating municipal water treatment facilities are required to maintain Minnesota Department of Health operator certifications appropriate for the classification of the treatment and distribution systems they operate.

These certifications require ongoing training and continuing education in:

- Drinking water treatment.
- Water distribution systems.
- Regulatory compliance.
- Public health protection.
- Emergency response procedures.

Responsibilities During the Incident

PeopleService:

- Responded to the low-pressure event.
- Verified Water Tower conditions.

- Coordinated with MDH.
- Restored water service.
- Collected bacteriological samples.
- Assisted with troubleshooting.
- Coordinated laboratory testing.
- Participated in post-incident investigation activities.

Representatives Involved

Jeremy Anderson

Water/Wastewater Lead Operator III

Primary responsibilities:

- Incident response coordination.
- Regulatory communications.
- Water system operations.
- Sample collection coordination.
- Incident documentation.
- Utility system troubleshooting.

David Medina

Utility Operations Representative

Primary responsibilities:

- Field investigation.
- Water system troubleshooting.
- Water Tower evaluation.
- Distribution system operations.
- Sample collection assistance.
- Water main repair coordination.

Greg Stang

Regional Manager

Primary responsibilities:

- Regional oversight of utility operations.

- Coordination with PeopleService operations staff.
 - Providing management support during the incident response.
 - Reviewing operational response activities.
 - Assisting with utility decision-making and resource coordination.
 - Receiving status updates throughout the incident and restoration process.
 - Participating in post-incident review and corrective action discussions.
-

Total Control Systems (TCS)

Organization Overview

Total Control Systems (TCS) is the City's Supervisory Control and Data Acquisition (SCADA) integrator and automation contractor.

TCS provides services including:

- SCADA programming.
- System integration.
- Alarm management.
- Communication systems.
- Automation controls.
- Troubleshooting and diagnostics.
- Technical support.

Responsibilities During the Incident

TCS:

- Investigated the radio communication failure.
- Analyzed historical SCADA trend data.
- Identified disabled communication alarms.
- Restored alarm functionality.
- Reviewed alarm history and event logs.
- Conducted post-incident system analysis.
- Modified SCADA programming to provide pressure-based fallback operations.
- Performed follow-up alarm history reviews.
- Recommended short- and long-term corrective actions.

Representative Involved

Kraig LaFreniere

**SCADA Systems Specialist
Total Control Systems**

Primary responsibilities:

- Investigation of communication failures.
- SCADA trend analysis.
- Alarm history review.
- SCADA programming modifications.
- Communication diagnostics.
- Corrective action recommendations.
- Recommendations regarding alarm management, trend monitoring, event-log retention, and communications redundancy.

Key Findings Provided by TCS

TCS identified several key findings during the investigation:

- The Water Tower pressure transducer was functioning properly.
- Radio communications between the Water Tower/Well No. 1 site and the Water Treatment Facility had failed.
- Communication failure alarms were disabled.
- Water Tower levels began declining on July 9, 2026.
- Prior radio communication failures occurred on April 22 and June 28, 2026.
- SCADA event-log retention prevented determination of exactly when alarms were disabled.
- Additional communication redundancy should be implemented.

TCS's findings form the basis for the Root Cause Analysis, Contributing Factors, Disabled Alarm Investigation, Corrective Actions, and Policy Recommendations contained within this report.

Quality Flow Systems

Organization Overview

Quality Flow Systems provides technical support and expertise related to municipal water treatment equipment, controls, instrumentation, and system operations.

Responsibilities During the Incident

Quality Flow Systems:

- Assisted with troubleshooting.
- Evaluated instrumentation concerns.
- Assisted in evaluating the Water Tower transducer.
- Provided technical consultation regarding system operations.

Representative Involved

Matt Yorks

Primary responsibilities:

- Technical troubleshooting.
- Instrumentation review.
- Operational consultation.
- Equipment evaluation.

Bolton & Menk

Organization Overview

Bolton & Menk serves as the City's engineering consultant.

The firm provides professional services related to:

- Water systems.
- Wastewater systems.
- Utility infrastructure.
- Capital improvement planning.
- Regulatory compliance.
- Municipal engineering.

Responsibilities During the Incident

Bolton & Menk:

- Provided technical support.
- Assisted with incident coordination.
- Evaluated system performance considerations.
- Reviewed infrastructure implications.
- Assisted in evaluating long-term improvements.
- Will assist with implementation of future recommendations as needed.

Representatives Involved

Matt Baumann

Assistant City Engineer

Primary responsibilities:

- Technical consultation.
- Utility system review and analysis.
- Engineering support.
- Evaluation of long-term infrastructure improvements.

John Graupmann

Municipal Engineer

Primary responsibilities:

- Engineering oversight and consultation.
- Water system infrastructure evaluation.
- Technical review of incident findings.
- Assistance with future implementation planning.

Minnesota Department of Health (MDH)

Organization Overview

The Minnesota Department of Health is the state agency responsible for regulating public drinking water systems and protecting public health.

MDH oversees:

- Drinking water compliance.
- Water quality standards.
- Public health regulations.
- Boil water advisory requirements.
- Regulatory reporting.

Responsibilities During the Incident

MDH:

- Provided emergency regulatory guidance.
- Assisted with boil water advisory requirements.
- Established bacteriological sampling requirements.
- Reviewed laboratory results.
- Authorized removal of the boil water advisory.

Representative Involved

Indran Kamalanathan

Compliance Engineer

Primary responsibilities:

- Drinking water compliance oversight.
- Emergency response support.
- Regulatory guidance.
- Public health protection.

Minnesota Duty Officer

Organization Overview

The Minnesota Duty Officer Program serves as the State's emergency incident reporting and coordination system.

Responsibilities During the Incident

The Minnesota Duty Officer:

- Received initial incident notification.
 - Coordinated communication with MDH.
 - Assisted in activating state-level response resources.
-

West Hennepin Public Safety

Organization Overview

West Hennepin Public Safety provides police and emergency response services to the City of Maple Plain and serves as a key partner in emergency management and public communications.

Responsibilities During the Incident

West Hennepin Public Safety:

- Assisted with emergency communications.
- Coordinated public notification efforts.
- Worked with Hennepin County Dispatch to initiate IPAWS alerts.
- Assisted with communication between the City and public safety partners.

Representatives Involved

Officer Nick Eldred

Primary responsibilities:

- Coordination of emergency notifications.
- Assistance with boil water advisory communications.
- Coordination with City staff and MDH.
- Distribution of public notification materials.

Chief Matt DeRose

Primary responsibilities:

- Public safety oversight.
 - Emergency response coordination.
 - Assistance with IPAWS activation.
 - Support of City emergency management operations.
-

Hennepin County Dispatch

Organization Overview

Hennepin County Dispatch serves as the regional emergency communications center responsible for coordinating emergency notifications and public safety communications.

Responsibilities During the Incident

Hennepin County Dispatch:

- Assisted with IPAWS activation.
 - Coordinated emergency communications.
 - Supported public notification efforts.
-

Engel Water Testing, Inc.

Organization Overview

Engel Water Testing, Inc. is a Minnesota-certified drinking water laboratory.

Minnesota State Certified Laboratory Number: 027-003-105

Responsibilities During the Incident

Engel Water Testing:

- Received bacteriological water samples.
- Conducted laboratory analysis.
- Issued certified laboratory reports.
- Confirmed compliance with MDH and EPA standards.

Laboratory Analysis

Samples analyzed:

- Water Tower
- Maple Plain Apartments
- Bryantwood Apartments

All three samples tested **Negative** for coliform bacteria and met all applicable drinking water standards.

Valley Rich

Organization Overview

Valley Rich provides underground utility construction, excavation, and repair services.

Responsibilities During the Incident

Valley Rich:

- Responded to the water main break discovered during the incident.
 - Performed repair of the damaged water main.
 - Restored normal service to the affected area.
-

Utility System Stakeholders

Residents, Businesses, and Institutions

Residents, businesses, schools, churches, and other institutions connected to the municipal water system were directly affected by:

- The loss-of-pressure event.
- The precautionary boil water advisory.
- Emergency notifications.
- Temporary operational impacts.

These stakeholders are the primary beneficiaries of the corrective actions and recommendations identified within this report.

Appendix B Conclusion

The July 2026 water pressure loss incident required coordination among City staff, utility operators, technical consultants, engineers, laboratory personnel, regulators, contractors, and public safety agencies. The successful restoration of service, protection of public health, completion of the investigation, and development of corrective actions were made possible through the collaborative efforts of all organizations and personnel identified in this appendix.

Appendix C

Complete Incident Timeline

Water System Pressure Loss and Boil Water Advisory

July 9–12, 2026

The following timeline summarizes the significant events associated with the July 2026 water system pressure loss incident, emergency response activities, public communications, investigation, bacteriological testing, and restoration of normal operations.

Thursday, July 9, 2026

Water Tower Levels Begin Declining

During the July 13, 2026 post-incident review, Total Control Systems (TCS) demonstrated historical SCADA trend data showing that Water Tower levels began declining on July 9, 2026.

Although communication issues existed between the Water Tower/Well No. 1 site and the Water Treatment Facility, the declining Water Tower levels remained visible within the SCADA trending system. TCS demonstrated that the Water Tower continued to decline over the following two days leading up to the loss-of-pressure event.

Because communication alarms had been disabled, operators did not receive an automatic notification regarding the communication failure. However, TCS indicated that routine review of Water Tower trend data would have shown that Water Tower levels were steadily declining and not operating as expected.

Saturday, July 11, 2026

8:26 AM

Jeremy Anderson of PeopleService received a WIN911 notification indicating a low-pressure condition within the City's water system.

9:01 AM

David Medina contacted Jeremy Anderson and advised that the City of Maple Plain appeared to be out of water.

9:09 AM

Jeremy Anderson contacted Greg Stang to discuss the situation and coordinate response activities.

9:17 AM

The Minnesota Duty Officer was notified.

A conference call was initiated with Minnesota Department of Health (MDH) Compliance Engineer Indran Kamalanathan.

MDH provided guidance regarding:

- System pressure restoration.
- Public notification requirements.
- Boil water advisory procedures.
- Bacteriological sampling requirements.
- Requirements for lifting the advisory.

Approximately 9:36 AM

Jeremy Anderson contacted Officer Nick and reviewed the MDH requirements and public notification process.

Approximately 9:45 AM

PeopleService staff arrived in Maple Plain and verified that the Water Tower was effectively empty.

10:00 AM – 11:00 AM

Initial troubleshooting focused on the Water Tower pressure transducer because:

- The Water Tower was empty.
- SCADA information appeared inconsistent with field conditions.
- No tower alarms had been received.

The transducer was:

- Removed.
- Inspected.
- Cleaned.
- Reinstalled.
- Tested.

At this stage, staff believed the transducer may have malfunctioned.

10:56 AM

City Administrator Jacob Schillander was briefed regarding:

- Current system conditions.
- MDH requirements.
- Sampling requirements.
- Potential laboratory testing options.

10:59 AM

The City issued an initial **Citywide Water Outage Notification** through City communication channels.

11:03 AM

The boil water advisory language was finalized.

11:36 AM

A boil water advisory notice was posted on the:

- City website.
- City Facebook page.

12:13 PM

The City issued a formal Emergency Notification titled:

“Drinking Water – Boil Water Advisory.”

Residents were advised to:

- Boil water prior to consumption.
- Use bottled or boiled water for drinking.

- Use boiled or bottled water for food preparation.
- Use boiled or bottled water for brushing teeth.

Approximately 12:15 PM

Following issuance of the advisory:

- Wells were manually placed into operation.
- Water service and pressure restoration began.
- The Water Tower refill process was initiated.

12:32 PM

At the request of the City, the West Hennepin Police Department coordinated with Hennepin County Dispatch to initiate an Integrated Public Alert and Warning System (IPAWS) emergency notification.

1:28 PM

Bacteriological Sample Collected:

- Maple Plain Apartments

1:45 PM

Bacteriological Sample Collected:

- Water Tower

1:55 PM

Bacteriological Sample Collected:

- Bryantwood Apartments

The samples were transferred to Engel Water Testing for expedited analysis.

Approximately 2:20 PM

Samples were received at Engel Water Testing laboratory for processing.

2:43 PM

During troubleshooting, TCS identified and re-enabled the disabled Water Tower and Well No. 1 communication alarms.

SCADA alarm events immediately began appearing, including:

- Tower #1 Radio Fail
- Well #1 Radio Fail

2:46 PM

TCS re-enabled Lift Station communication alarms.

SCADA alarm events immediately began appearing for:

- Lift Station Radio Fail

Afternoon Investigation

Staff contacted:

- Total Control Systems (TCS)
- Quality Flow Systems

Investigation determined:

- Water Tower level instrumentation was functioning correctly.
- Water Tower level information remained available locally at Well No. 1.
- The radio communication system had failed.
- Communication alarms had been disabled.

The radio communication failure was identified as the primary initiating event.

3:45 PM

Immediate corrective actions were completed.

Staff departed the site while continuing to monitor the system remotely.

4:45 PM

An updated boil water advisory was posted on:

- City website.

- City Facebook page.

5:52 PM

The City issued:

- A follow-up Emergency Notification.
- A detailed press release.

The communication informed residents that:

- Pressure had been restored.
- Water service had been restored.
- The advisory remained in effect pending laboratory results.

7:48 PM

City staff were notified of a water main break near:

Main Street and Maple Avenue

Approximately 8:00 PM – 9:00 PM

Response staff evaluated repair options.

9:20 PM

Following consultation with the City Administrator, the decision was made to:

- Restrict flow to the affected area.
- Schedule repair for the following morning.
- Continue monitoring water pressure overnight.

10:03 PM

Staff confirmed:

- The leak had been isolated.
 - Residents reported acceptable water pressure.
 - Barricades had been installed.
 - Valley Rich was scheduled to repair the line on July 12.
-

Sunday, July 12, 2026

Approximately 8:00 AM

Valley Rich began repair work on the water main break.

Approximately 9:30 AM

Water main repairs were completed and service restored.

2:30 PM

Engel Water Testing completed bacteriological analysis of all three samples.

Laboratory report findings:

- Water Tower: Negative
- Maple Plain Apartments: Negative
- Bryantwood Apartments: Negative

All samples met MDH and EPA drinking water standards.

Approximately 3:30 PM

PeopleService received verbal confirmation that all bacteriological samples tested negative.

Results were forwarded to:

- Jacob Schillander
- Greg Stang
- Jeremy Anderson
- Matt Yorks
- Alex McArdle
- Chad Meyer
- Minnesota Department of Health

4:19 PM

The City issued a final Emergency Notification titled:

“Maple Plain Drinking Water Is Safe – Drinking Water Problem Corrected.”

The boil water advisory was officially lifted.

The notification was distributed through:

- Emergency Notification System
- City website
- City Facebook page

4:19 PM

The boil water advisory removal notice was posted on:

- City website
 - City Facebook page
-

Monday, July 13, 2026

TCS and City Debriefing

A detailed incident review meeting was conducted involving:

- City staff
- PeopleService
- Total Control Systems

Discussion topics included:

- Radio communication failures.
- Disabled alarms.
- SCADA trend review.
- Alarm management practices.
- Communications redundancies.
- Corrective actions.
- Future improvements.

TCS demonstrated historical trend data showing:

- Water Tower levels began declining July 9, 2026.
- The declining levels were visible in SCADA trends.
- Earlier trend review likely would have identified the issue before pressure was lost.

Wednesday, July 15 – Thursday, July 16, 2026

Additional TCS Alarm Investigation

TCS reviewed available alarm history and event logs.

Key findings included:

- Event logs only retained records back to July 9, 2026.
- Water Tower and Well No. 1 communication alarms were functioning on June 28, 2026.
- The next communication alarm occurrence was July 11, 2026 after TCS re-enabled the alarms.
- Communication alarms were likely disabled sometime between June 28, 2026 and July 9, 2026.
- Prior radio communication failures occurred on April 22, 2026 and June 28, 2026.
- Prior radio communication failures had not been communicated to the City.

These findings were incorporated into the Root Cause Analysis and Contributing Factors sections of this report.

Appendix D

Total Control Systems (TCS) Investigation Report Summary

Purpose of Appendix D

This appendix summarizes the investigation performed by Total Control Systems (TCS), the City of Maple Plain's SCADA integrator, following the July 11, 2026 water pressure loss incident. The TCS investigation focused on communications systems, alarm management, SCADA trends, historical alarm activity, operational performance, and opportunities for corrective action.

The purpose of this appendix is to document the findings provided by TCS, identify the technical causes of the incident, summarize investigative conclusions, and present recommendations intended to reduce the likelihood of future incidents.

Investigation Scope

Following restoration of water service and issuance of the precautionary boil water advisory, the City requested that Total Control Systems (TCS), in coordination with City staff, PeopleService, and Bolton & Menk, perform a detailed review of:

- SCADA historical trend data.
- Communication system performance.
- Water Tower level data.
- Alarm configurations.
- Alarm history records.
- Event log records.
- Radio communication equipment.
- System operational redundancies.
- Opportunities for corrective action.

The investigation was conducted through a combination of remote SCADA review, alarm history analysis, discussions with utility operators and City staff, and on-site troubleshooting completed on July 11, July 13, and July 16, 2026.

Investigation Participants

Total Control Systems (TCS)

Kraig LaFreniere

SCADA Systems Specialist

Responsibilities included:

- SCADA systems review.
- Historical trend analysis.
- Communication system diagnostics.
- Alarm configuration review.
- Event-history analysis.
- Corrective action recommendations.

City of Maple Plain

Jacob Schillander

City Administrator

Responsibilities included:

- Incident coordination.
- Review of investigative findings.
- Coordination between responding agencies and consultants.
- Development of corrective action strategies.

Kevin Larson

Assistant City Administrator

Responsibilities included:

- Administrative support.

Julie Maas-Kusske

Mayor

Responsibilities included:

- Municipal leadership during the response effort.
 - Review of incident findings.
 - Participation in post-incident discussions.
-

PeopleService

Jeremy Anderson

Water/Wastewater Lead Operator III

Responsibilities included:

- Utility operations.
- Incident response coordination.
- Operational troubleshooting.
- Regulatory coordination.

David Medina

Utility Operations Representative

Responsibilities included:

- Field troubleshooting.
- System evaluation.
- Operational diagnostics.
- Water system restoration activities.

Greg Stang

Regional Manager

Responsibilities included:

- Regional oversight of utility operations.
 - Management support during the response.
 - Coordination of operational resources.
 - Participation in post-incident review and corrective action discussions.
-

Bolton & Menk

John Graupmann

Municipal Engineer

Responsibilities included:

- Engineering consultation during the investigation.
 - Review of utility system performance and operational impacts.
 - Evaluation of infrastructure-related findings.
 - Participation in corrective action and long-term improvement discussions.
 - Technical support regarding implementation of future recommendations.
-

Initial Findings – July 11, 2026

Water Tower Transducer Investigation

One of the initial assumptions during troubleshooting was that the Water Tower pressure transducer had failed.

Investigation revealed:

- The Water Tower pressure transducer was functioning correctly.
- Water Tower levels were being measured accurately.
- Water Tower level information remained available locally at Well No. 1.

Based on this information, TCS determined that the transducer was not the cause of the incident.

Finding

The Water Tower pressure transducer was operating properly and did not contribute to the loss-of-pressure event.

Radio Communication Failure

As troubleshooting continued, TCS evaluated communications between the Water Tower/Well No. 1 site and the Water Treatment Facility.

The investigation identified:

- A fault within the radio communication system.
- Loss of communications between facilities.
- Failure of information exchange between critical utility assets.

The communication failure prevented normal operation of the Water Tower refill process and contributed to depletion of stored water reserves.

Finding

Radio communication failure between the Water Tower/Well No. 1 site and the Water Treatment Facility was identified as the primary initiating event of the incident.

Communication Alarm Investigation

During review of alarm activity on July 11, 2026, TCS discovered that communication alarms were not generating notifications despite known communication failures.

Further investigation revealed:

- Communication failure alarms existed within the SCADA system.
- The alarms had been disabled.
- Operators therefore received no automated notification when communications failed.

Upon re-enabling the alarms, communication-failure events immediately began appearing within the system.

Events Generated

July 11, 2026 – Approximately 2:43 PM

- Tower #1 Radio Fail
- Well #1 Radio Fail

July 11, 2026 – Approximately 2:46 PM

- Lift Station #1 Radio Fail

Finding

Disabled communication alarms were a significant contributing factor because operators received no automated warning that communications had been lost.

Historical Trend Analysis

Water Tower Level Trends

During the July 13, 2026 review, TCS demonstrated historical SCADA trend data showing Water Tower performance prior to the incident.

The review indicated:

- Water Tower levels began declining on July 9, 2026.
- The declining levels were visible through SCADA trend data.
- The trend continued through July 10 and July 11.
- Water Tower depletion occurred gradually rather than suddenly.

TCS advised that the declining Water Tower levels represented an observable warning sign prior to the loss-of-pressure event.

Finding

TCS concluded that:

Routine review of SCADA trend data would likely have identified the abnormal Water Tower behavior before system pressure was lost.

Operational Observation

TCS further advised that although communication alarms were disabled, Water Tower levels remained visible within the SCADA system. Had routine trend review occurred, operators could have observed the declining Water Tower levels beginning July 9, 2026 and initiated corrective action before the Water Tower was depleted.

Alarm History Investigation

Review Conducted July 16, 2026

Following the initial investigation, TCS completed an additional review of available alarm records and historical alarm activity.

Water Tower and Well No. 1 Alarm History

The review showed documented radio-failure events on:

- April 22, 2026
- June 28, 2026
- July 11, 2026

Alarm history screenshots provided by TCS documented the radio-failure events.

The final documented radio-failure event prior to the incident occurred:

June 28, 2026 – Approximately 9:55 AM

Additional alarm activity continued until approximately:

June 28, 2026 – 10:22 AM

The next recorded radio-failure alarm did not occur until:

July 11, 2026 – Approximately 2:43 PM

when TCS re-enabled the disabled alarms.

Finding

TCS concluded that Water Tower and Well No. 1 communication alarms were likely disabled sometime between:

June 28, 2026 and July 9, 2026.

Lift Station Alarm History

TCS also reviewed Lift Station communication alarm history.

The review identified:

- Previous alarm activity occurring November 4, 2025.
- No subsequent Lift Station radio-failure alarms until July 11, 2026.

Alarm history records supporting this finding were provided by TCS.

Finding

TCS concluded that Lift Station communication alarms were likely disabled sometime between:

November 4, 2025 and July 9, 2026.

Prior Communication Failures

During the historical alarm review, TCS identified prior communication failures involving the Water Tower and Well No. 1 communication systems on:

- April 22, 2026
- June 28, 2026

The City was not notified of these communication failures and therefore had no indication that recurring communications issues existed.

Finding

TCS concluded that earlier communication of recurring radio failures may have provided the City an opportunity to investigate, evaluate corrective actions, or pursue communications upgrades before the July 2026 incident occurred.

Event Log Retention Review

TCS reviewed available SCADA event logs to determine who disabled the communication alarms.

The review determined:

- Event logs only extended back to July 9, 2026.
- Earlier user activity records were unavailable.
- Retention settings prevented investigators from determining:
 - Exactly when alarms were disabled.
 - Which user disabled the alarms.
 - Why the alarms were disabled.

Finding

TCS determined that current event-log retention periods are insufficient to support detailed incident investigations and audit reviews.

Corrective Actions Implemented by TCS

Following the incident, TCS implemented or initiated the following corrective actions:

Alarm Management

- Re-enabled communication failure alarms.
- Evaluated automatic alarm reactivation functionality.
- Evaluated alarm timeout provisions.
- Reviewed alarm management procedures.

System Operations

- Implemented temporary pressure-based fallback controls.
- Verified communication alarm functionality.
- Reviewed operational notification settings.

Administrative Controls

- Added additional notification recipients.
 - Initiated event-log retention review.
 - Assisted with development of alarm verification procedures.
-

TCS Recommendations

Communication Systems

- Replace or supplement aging radio communications.
- Evaluate cellular communication alternatives.
- Develop redundant communications pathways.

Alarm Management

- Perform monthly alarm verification reviews.
- Establish alarm disable tracking procedures.
- Implement automatic alarm reactivation controls.

Operational Practices

- Implement daily review of Water Tower trend data.
- Implement daily system documentation.
- Improve monitoring of communication system performance.

Security and Accountability

- Expand event-log retention.
- Implement individual user accounts.
- Implement user activity tracking.
- Implement automatic system logoff procedures.

Communication Protocols

- Establish formal notification requirements for recurring communication failures.
- Require escalation of critical communications issues to City administration.

- Improve documentation of recurring system faults.
-

TCS Investigation Conclusions

Based upon its review of SCADA records, historical trends, alarm history, communication systems, and operational data, TCS reached the following conclusions:

1. The Water Tower pressure transducer functioned properly.
 2. Radio communications between the Water Tower/Well No. 1 site and the Water Treatment Facility failed.
 3. Communication failure alarms were disabled.
 4. Water Tower levels began declining on July 9, 2026.
 5. The declining Water Tower levels were visible in SCADA trend data.
 6. Earlier trend review could likely have identified the issue before pressure was lost.
 7. Prior radio communication failures occurred before the incident and were documented on April 22 and June 28, 2026.
 8. These prior communication failures were not communicated to the City.
 9. Event-log retention limitations prevented determination of exactly when alarms were disabled or by whom.
 10. Communication failure alarms were a significant contributing factor to the incident.
 11. Additional monitoring, alarm management, communication redundancy, and record-retention improvements should be implemented.
-

Appendix D Conclusion

The TCS investigation provided the primary technical analysis used throughout this After Action Report. The investigation determined that the incident resulted from a radio communication failure compounded by disabled communication alarms, lack of recognition of declining Water Tower trends, failure to communicate recurring communication issues, and limitations in record-retention practices. The findings and recommendations provided by TCS form the foundation for the City's corrective actions and long-term policy recommendations.

Appendix E

PeopleService Incident Report Summary

July 11–12, 2026 Water System Pressure Loss Event

Purpose of Appendix E

This appendix summarizes the incident report prepared by PeopleService regarding the July 11–12, 2026 water system pressure loss event. The report was prepared by Jeremy Anderson, Water/Wastewater Lead Operator III, and documents the operational response, troubleshooting activities, regulatory notifications, water quality sampling efforts, restoration of service, and corrective actions undertaken during the incident.

The information contained in this appendix was reviewed and utilized in developing the Incident Timeline, Root Cause Analysis, Contributing Factors, Corrective Actions, and Policy Recommendations sections of this report.

Incident Notification and Initial Response

On July 11, 2026, at approximately **8:26 AM**, Jeremy Anderson received a WIN911 alarm notification indicating a low-pressure condition within the City of Maple Plain water system. At the time, he was conducting routine weekend rounds at the Winsted Wastewater Facility.

At approximately **9:01 AM**, David Medina contacted Jeremy Anderson and advised that the City of Maple Plain appeared to be out of water. Jeremy Anderson immediately began responding to Maple Plain.

At approximately **9:09 AM**, Jeremy Anderson contacted Greg Stang, Regional Manager with PeopleService, to provide an update and receive management guidance regarding the incident. Greg Stang remained involved throughout the response effort and received periodic updates regarding restoration activities and system status.

At approximately **9:17 AM**, Jeremy Anderson contacted the Minnesota Duty Officer and reported the loss of pressure within the City's water system. The Minnesota Duty Officer then coordinated a conference call with MDH Compliance Engineer Indran Kamalanathan.

MDH provided guidance regarding:

- Verification of system conditions.
- Public notification requirements.
- Boil water advisory procedures.
- Bacteriological sampling requirements.
- Conditions required to lift the advisory.

MDH advised that City staff should:

1. Verify the system was out of water.
2. Issue a boil water advisory.
3. Restore water service.
4. Collect bacteriological samples.
5. Submit samples to a certified laboratory.
6. Await satisfactory laboratory results before lifting the advisory.

Public Notification Coordination

During the incident response, Officer Nick Eldredge of West Hennepin Public Safety actively assisted with preparation and distribution of boil water advisory notifications.

At approximately **9:36 AM**, Jeremy Anderson spoke with Officer Eldredge regarding MDH requirements and the notification process.

At approximately **10:04 AM**, Jeremy Anderson assisted Officer Eldredge in completing the required boil water advisory notification forms and discussed the notification process for approximately twenty minutes.

At approximately **11:03 AM**, Officer Eldred advised that the boil water advisory notification had been completed and that notification efforts would include public communications through available emergency communication platforms, public safety channels, and City contacts.

Field Verification

Jeremy Anderson arrived in Maple Plain at approximately **9:45 AM** and verified that the Water Tower was effectively empty. Additional personnel, consultants, City officials, and elected officials also responded to the scene during the early stages of the incident.

PeopleService personnel confirmed that a loss-of-pressure condition existed and began troubleshooting activities to determine the cause of the event.

Initial Troubleshooting Activities

The initial working theory focused on a potential failure of the Water Tower pressure transducer.

PeopleService observed that:

- The Water Tower was effectively empty.
- The Water Treatment Facility SCADA system appeared to indicate sufficient Water Tower levels.
- Automatic Water Tower refill operations had not occurred.
- No communication failure alarms had been received.

Based on these observations, PeopleService initially believed that the pressure transducer may have failed or malfunctioned. The transducer was:

- Removed.
- Cleaned.
- Inspected.
- Reinstalled.
- Tested.

Following testing, the inconsistency remained and additional troubleshooting was initiated.

Subsequent investigation involving Quality Flow Systems and Total Control Systems eventually determined that the pressure transducer itself was operating correctly and that the issue was related to communications between facilities rather than instrumentation failure.

Water Service Restoration

Following preparation of the boil water advisory, PeopleService manually activated water production facilities and began restoring pressure to the distribution system.

Wells were manually placed into operation and Water Tower refill activities began. Restoration efforts continued while troubleshooting and public notification activities occurred simultaneously.

Laboratory Testing Coordination

At approximately **10:56 AM**, Jeremy Anderson discussed laboratory testing options with City Administrator Jacob Schillander. The City expressed interest in obtaining the fastest available testing turnaround given the weekend timing of the incident.

PeopleService initially contacted **UC Labs** regarding emergency bacteriological testing. UC Labs advised that testing could be completed; however, samples would need to be transported to Janesville and analysis would require approximately 24 hours.

Subsequently, Engel Water Testing advised that local emergency testing services were available and that personnel could retrieve samples directly from Maple Plain. This significantly reduced transportation requirements and improved logistical efficiency.

Three bacteriological samples were collected:

Location	Collection Time
Maple Plain Apartments	1:28 PM
Water Tower	1:45 PM
Bryantwood Apartments	1:55 PM

The samples were transferred to Engel Water Testing for laboratory analysis.

Discovery of Communication System Failure

After the initial transducer investigation failed to identify the cause of the incident, PeopleService requested assistance from:

- Quality Flow Systems.
- Total Control Systems (TCS).

Matt Yorks of Quality Flow Systems assisted with additional diagnostics, which led personnel to Well No. 1. There, staff observed that Water Tower level information was being measured accurately at the local control panel. This observation indicated that the transducer itself was functioning properly.

David Medina subsequently contacted Kraig LaFreniere of Total Control Systems.

TCS determined that:

- A communication failure alarm existed within the SCADA system.
- The communication alarm had been disabled.
- The radio communication system had faulted.
- The Water Treatment Facility was not receiving proper communication from the Water Tower/Well No. 1 site.

This finding redirected the investigation away from instrumentation failure and toward communication system failures and alarm management issues.

SCADA Programming Modifications

Following identification of the radio communication failure, TCS implemented temporary programming modifications to improve system operation.

TCS adjusted the SCADA programming to utilize pressure information available at the Water Treatment Facility, reducing dependence upon radio communications with the Water Tower.

The modification allowed the system to continue operating while additional investigation and long-term corrective actions were considered.

TCS also advised that portions of the existing radio communications infrastructure were aging and obsolete and recommended evaluation of cellular communications as a future improvement.

Water Main Break Response

At approximately **7:48 PM** on July 11, 2026, PeopleService received notification of a water main break near the intersection of Main Street and Maple Avenue.

Jeremy Anderson responded to the scene and discussed response options with City Administrator Jacob Schillander.

Following consultation, it was determined that:

- The leak would be isolated through valve operations.
- Water pressure would be evaluated.
- Valley Rich would perform repairs the following morning if adequate pressure could be maintained overnight.

Jeremy Anderson manually adjusted valves, evaluated local pressure conditions, and spoke with nearby residents, who reported acceptable water pressure. Barricades were installed around the affected area and Valley Rich was scheduled to perform repairs beginning the following morning.

Water Main Repair Activities

On July 12, 2026, Valley Rich completed excavation and repair of the damaged water main.

According to information provided to PeopleService:

- Water was shut off at approximately 8:00 AM.
 - Repairs were completed.
 - Water service was restored by approximately 9:30 AM.
-

Water Quality Results

At approximately **3:30 PM on July 12, 2026**, PeopleService received verbal notification that all bacteriological samples tested "Absent" for coliform bacteria.

Laboratory Report Numbers:

- 26-31058
- 26-31059
- 26-31060

The laboratory report confirmed that all samples met applicable MDH and EPA drinking water standards.

Following receipt of the results:

- Results were forwarded to the City.
 - Results were forwarded to MDH.
 - Authorization was received to lift the boil water advisory. ,
-

Additional Observations Discussed During the July 13, 2026 Review

During the July 13, 2026 review meeting, additional observations were discussed regarding the operation of the SCADA system.

It was noted that Water Tower levels were visibly declining within the SCADA system prior to the loss-of-pressure event. It was further observed that communication alarms did not generate notifications because the communication alarm had been disabled within the SCADA system. These observations became important considerations in the City's subsequent Root Cause Analysis and Contributing Factors review.

PeopleService Corrective Action Recommendations

As part of its report, PeopleService identified several actions intended to reduce the likelihood of future incidents.

Alarm Management

- Investigate why the low-pressure notification did not activate until the Water Tower was depleted.
- Investigate when and why communication alarms were disabled.
- Establish a monthly work order to verify all critical alarms remain enabled.

Public Notification Improvements

- Work with City Hall to streamline boil water advisory notification procedures and reduce the time required to notify residents following a loss-of-pressure event.
-

Summary of PeopleService Findings

PeopleService concluded that:

1. The Water Tower became depleted due to failure of normal operational controls.
 2. The Water Tower pressure transducer was initially suspected as the cause of the incident.
 3. Subsequent investigation determined that the pressure transducer was functioning properly.
 4. Radio communications between facilities failed.
 5. Communication failure alarms had been disabled.
 6. Earlier notification of the communication failure could have prevented the loss-of-pressure event.
 7. Water quality remained safe and laboratory testing confirmed the absence of bacterial contamination.
 8. Alarm management and communication protocols should be improved.
-

Source Document

PeopleService Incident Report

Prepared by: **Jeremy Anderson, Water/Wastewater Lead Operator III**

PeopleService

Date: July 12, 2026

This appendix summarizes the contents of the official PeopleService incident report and serves as supporting documentation for the findings and recommendations contained throughout this After Action Report.

Maple Plain Incident Report: July 12th, 2026

On July 11th at 8:26am, I received a text message notification from WIN911 stating “system pressure transducer low pressure alarm.” At this point in my day, I was in the middle of completing my weekend rounds at the Winsted Wastewater Facility. As I was finishing my rounds in Winsted so that I could address the text message, I received a phone call from David Medina at 9:01am. David told me that the City of Maple Plain was out of water. At this point I left Winsted and headed to Maple Plain to see what the problem was. While enroute to Maple Plain I called Greg Stang at 9:09am to fill him in and get his feedback. Once I was off the phone with Greg, I called the Minnesota Duty Officer to report that the City of Maple Plain’s water system had lost pressure at 9:17am. The Minnesota Duty Officer put me in a three-way call with an MDH compliance engineer whose name was Indran Kamalanathan. Indran at this point emailed me a boil order template to notify residents of the required boil order and then walked me through what their suggested next steps would be. His recommendations were as follows: verify that the system is out of water and then complete the boil order notification form and then you can notify your residents, then you may start to pump water into your system. After that is completed, you will need to collect multiple Bac-T samples from the distribution system to verify that bacteria is absent prior to discontinuing the boil order. He stated that he thinks we should collect 3 Bac-T samples, one at the water tower and then 2 more throughout the town (spread out). Once you collect the samples you need to send them to a certified lab and wait to receive the result of no bacteria present and at that point we could discontinue the boil order. While I was on the phone with the three people listed, I received a text message from Officer Nick at 9:04am. I called the Officer back at 9:36am and explained the process to him that Indran explained to me over the phone. David Medina stated that he would head to Maple Plain to give me a hand. I arrived in Maple Plain around 9:45am and verified that the tower was without water. While I was verifying this there was an engineer (Matt) that came and then a few council members as well. At approximately 10:04am I assisted officer Nick over the phone in filling out the boil order notification form. I spoke with him for approximately 20 minutes.

David Medina arrived in Maple Plain at approximately 10:30am. We began to troubleshoot what issues could have caused the tower to go empty without alerting anyone. Looking at the SCADA at the Water Treatment Facility we were able to see that it was registering that there was sufficient water in the tower even though it was empty. This was the reason that the wells did not turn on to fill up the tower because it was reading that it was good and not low. That tells me that the most likely and probable cause of this is that the pressure sensor

which is located at the base of the tower either failed or malfunctioned. The point of the pressure sensor is that when the water level gets low enough it will tell the wells to turn on to start pumping more water to the water tower and then when the level gets high enough again it will shut off. We did not get a low tower alarm or any alarm in general so that made me think that the culprit had to be the pressure sensor.

David then turned the wells from auto to off so that the system would not pressurize automatically without our authorization. He then disconnected the pressure sensor, took it to the water treatment facility to clean it and then brought it back to the water tower to install it again. Once it was reinstalled, we checked the pressure on the SCADA again and it was still reading the same as it was, which was inaccurate. At 10:56am I received a call from Jacob, and I explained what was going on and what that process looked like including the Bac-T sampling prior to lifting the boil order. Jacob suggested that we try reaching out to different laboratories to see if we could get testing done as soon as possible and since it was a weekend if that was possible to get it done. I contacted UC Labs right away and they answered and they stated that they would be willing to run emergency Bac-T samples, but we had to get those to Janesville as soon as possible as those labs take 24 hours to run. At this point, it was about 11:03am and I received a text from officer Nick that the boil order notice was completed. He stated that it was going to be published on the West Hennepin Facebook page as well as a text message alert system and notify city staff and council members as well. After that we turned a well on to begin supplying the system with water. While the tower was filling, I asked David to figure out two sample sites using his normal Bac-T sample site plan while I ran back to Lester Prairie to retrieve Bac-T sample bottles at my facility. When I returned with the bottles David stated that Engle Water Testing out of Minnetrista had contacted him stating that they would be willing and able to run Bac-T samples for us if needed. This was a much closer option than Janesville. They also were able to come to Maple Plain and collect them from us. We collected 3 samples from the distribution system. The sample locations were the water tower, Maple Plain Apartments and Bryantwood Apartments. These samples were collected at 1:28pm, 1:45pm and 1:55pm and then handed off to Engle water testing to bring back to their laboratory. They told us that analysis would take about 24 hours.

I then called Greg to let him know that everything had been completed and at this point we were just waiting for the results from the lab to lift that boil order. David and I started to try to figure out how we were going to be able to have the water treatment facility in automatic mode vs manual. Assuming that it was a pressure transducer failure at the water tower, I

contacted Matt Yorks with Quality Flow Systems to see if they would have a replacement on hand. Matt helped us begin troubleshooting which then led us to well house #1 where we saw that the panel there was getting an accurate reading of the water tower level. This made us believe that the pressure sensor transducer was working correctly and it was a problem with our SCADA system. David then contacted Kraig who is with InControl, the integrator for Maple Plains SCADA system. Kraig began looking into the SCADA to see what he could see from his end, and he found that there was a communication failure alarm present, however it did not call out because the alarm was disabled. This information came as a surprise to both David and I.

Now that we were informed that it was a communication failure, Kraig directed us to the radio at the water treatment facility to verify that that was working/communicating correctly, and we found that it was faulted. This radio failure was the reason that we were getting a false water tower level reading. We attempted to power it down and reset the system to see if it would communicate then. This attempt did not work. Kraig then adjusted the SCADA programming to read the pressure at the water treatment facility vs. the pressure at the water tower. This eliminated the need for radio communication between the water treatment facility and the water tower. At this point in the day, we were confident that this fix was going to get us through the night and everything was operating as it should, however, he mentioned that the radios that are currently being utilized are outdated and obsolete and he suggested that they be replaced with cellular communication as soon as possible. We packed up and went home and would follow up with the lab tomorrow. We left Maple Plain around 3:45pm. We kept our work phones and monitored the situation closely for the next few hours to make sure everything was going smoothly.

At 7:48pm I was called by a police officer and made aware that there was a water main break at the intersection Main St and Maple Ave. I responded to this call and left my house and went back to Maple Plain. On my way there I called Jacob to get an idea of how he wanted to handle the situation with the water main break. I had 3 different ideas on how we could resolve the issue and wanted his input.

1. Was to call an excavating company and have them dig and then repair the water line tonight

2. We could idle the valves down to reduce the flow going to the specific area until morning and then have an excavating company come in and dig (cheaper than option 1)
3. We could idle the valves down to reduce the flow and then we could let it leak until Monday when a construction company was already scheduled to repair that specific spot anyway.

After speaking with Jacob, he said he would get back to me and then he texted me and at 9:20pm “tamper it down, then check with the houses affected to see if they have okay water pressure if they do, have valley rich come out tomorrow to fix it. If they don’t have sufficient water pressure, then call valley rich tonight.”

I arrived on site and began operating valves to isolate and idle the break. There were multiple people standing around and watching the watermain break while I was working and I went up and spoke with about 2-3 people and all of them lived in the affected area. They stated that their water pressure was okay. I called David and had him call valley rich and have them schedule a dig for the next morning. At 10:03pm I texted Jacob stating, “I have it tampered down with the valves and valley rich will be out at 8am. Sounds like water pressure is “okay” plus it's 10pm so I wouldn't expect much more water usage throughout the night. I put some barricades around where it is bubbling up to try to prevent someone from driving or walking into it. Then I went home.

David handled the water main repair on 7/12/26. It is my understanding that the water was shut off at about 8am, the repair was made, and water was back on by about 9:30am.

At approximately 3:30pm on 7/12/26, I called Engel Water Testing to see if the Bac-T sample results were ready. There was no answer, so I left a voicemail. About 5 minutes after leaving that voicemail, David called me state that Engel had called him with the results and all 3 Bac-T samples were “absent” meaning we were then good to lift the boil order. I instructed David to forward the sample results to Jacob, Greg, Matt, Alex, Chad, and myself as soon as he received them from the lab. I then forwarded it to the MDH compliance engineer, Indran. I received an email from Jacob around 2pm stating that he wanted a full report and review of what happened this weekend and wanted it to him by noon on July 13th and that they will be having an independent audit done of the water plant and after it's been reviewed, they will do a debriefing meeting.

Current actions being taken by PSI to reduce the chance of similar incidents in the future-

1. Will have Kraig Investigate why the water treatment plant low sensor alarm only went off when the tower was empty, it only called once town was out of water.
2. Will have Kraig investigate when/why the communications alarm got disabled.
3. Will produce a monthly work order to verify all pertinent alarms are enabled.
4. Work with City Hall to try to streamline a way to get a boil order out to reduce the timeline of the system being out of water.

Jeremy Anderson

Water/Wastewater Lead Operator III



18171 Co Rd 9 – P.O. Box 25

Lester Prairie, MN 55354

Cell: 320-223-2034

Appendix F

Engel Water Testing Laboratory Results

July 11–12, 2026 Water Quality Testing

Purpose of Appendix F

This appendix contains the laboratory results associated with bacteriological testing performed following the July 11, 2026 loss-of-pressure event and precautionary boil water advisory.

The purpose of this appendix is to document the sampling process, laboratory analysis, and testing results used to verify the safety of the City's drinking water system prior to lifting the boil water advisory. The results contained in this appendix were reviewed by the Minnesota Department of Health (MDH) and served as the basis for authorizing removal of the advisory. ,

Laboratory Information

Laboratory Name: Engel Water Testing, Inc.

Laboratory Address:

9300 County Road 15
Minnetrista, Minnesota 55359

Minnesota Certified Laboratory Number:

027-003-105

Laboratory Director:

Kathryn M. Engel

Public Water System Number:

1270021 (City of Maple Plain)

Sampling Overview

Following restoration of water pressure on July 11, 2026, PeopleService personnel collected bacteriological samples from representative locations throughout the municipal water system in accordance with guidance provided by the Minnesota Department of Health.

The sampling plan included:

- One sample from the Water Tower.
- Two samples from locations within the water distribution system.

The selected locations were intended to provide a representative evaluation of water quality throughout the system following the loss-of-pressure event.

Sample Collection Information

Laboratory Test No.	Sample Location	Collection Date	Collection Time
26-31058	Water Tower	July 11, 2026	1:45 PM
26-31059	Maple Plain Apartments	July 11, 2026	1:28 PM
26-31060	Bryantwood Apartments	July 11, 2026	1:55 PM

Samples were delivered to Engel Water Testing on July 11, 2026 for expedited analysis. ,

Laboratory Analysis Information

Date Samples Received:

July 11, 2026 at 2:20 PM

Date Samples Prepared:

July 11, 2026 at 2:20 PM

Date Samples Analyzed:

July 12, 2026 at 2:30 PM

Analytical Method:

Standard Method 9223B (Colilert®) 20th Edition

Analysis Performed By:
Kathryn M. Engel Laboratory Staff

Laboratory Results

Coliform Bacteria Testing

The allowable limit established by MDH and EPA for the samples collected was:

Negative (Absent) for Coliform Bacteria.

Sample Results

Laboratory Test No.	Sample Location	Coliform Result	Meets MDH & EPA Standards
26-31058	Water Tower	Negative	Yes
26-31059	Maple Plain Apartments	Negative	Yes
26-31060	Bryantwood Apartments	Negative	Yes

Interpretation

All three samples tested **Negative** for coliform bacteria, indicating that coliform bacteria were not detected in any sample collected following the loss-of-pressure event. All samples met applicable Minnesota Department of Health and Environmental Protection Agency drinking water standards.

Chlorine Residual Results

In addition to bacteriological testing, chlorine residual information was documented for each sample location.

Laboratory Test No.	Sample Location	Chlorine Residual
26-31058	Water Tower	5.18 ppm
26-31059	Maple Plain Apartments	0.10 ppm

26-31060	Bryantwood Apartments	0.08 ppm
----------	-----------------------	----------

These readings documented that disinfectant residuals remained present within the municipal water system at the time samples were collected.

Laboratory Report

The certified laboratory report was issued by Engel Water Testing on July 12, 2026.

The report concluded that all samples complied with the allowable limit of negative for coliform bacteria and met applicable MDH and EPA requirements.

Water Quality Determination

Based upon the results of the laboratory analysis:

- No coliform bacteria were detected.
- All samples met MDH requirements.
- All samples met EPA drinking water standards.
- No evidence of bacterial contamination was identified within the municipal water system.

The results confirmed that the loss-of-pressure event did **not** result in detectable bacteriological contamination within the City's water distribution system.

Advisory Removal Authorization

At approximately 3:30 PM on July 12, 2026, PeopleService received notification that all samples tested absent for coliform bacteria. The results were immediately forwarded to:

- City Administration.
- PeopleService management.
- Minnesota Department of Health.

Following review of the laboratory results, MDH authorized the City to remove the precautionary boil water advisory. ,

At **4:19 PM on July 12, 2026**, the City issued public notification that:

Maple Plain Drinking Water Is Safe – Drinking Water Problem Corrected.

Appendix F Conclusion

The laboratory testing performed by Engel Water Testing, Inc. confirmed that the City of Maple Plain's drinking water system remained free of detectable coliform bacteria following the July 11, 2026 loss-of-pressure event. All samples complied with applicable MDH and EPA standards, and the results provided the basis for lifting the precautionary boil water advisory on July 12, 2026

Laboratory Test Report

Engel Water Testing, Inc.

9300 County Rd. 15 * Minnetrista, MN 55359

Contact: John Engel: Phone: (952) 955-1800 Contact: Kathryn Engel Email:kathrynengel3@gmail.com
Minnesota State Certified Laboratory #027-003-105

Maple Plain Public Works
P.O. Box 97
Maple Plain, MN 55359

Report Issue Date:	July 12, 2026	Discussion Notes: (**Chlorine Residual test taken & reported by Municipality Personnel.)
Sample(s) Collected By:	JA	
Analyst:	kme	
Date/Time: Sample(s) Recd. in Lab:	7/11 2:20pm	
Date/Time of Sample Preparation:	7/11 2:20pm	Sample Type: Water
Date/Time of Sample Analysis:	7/12 2:30pm	Approved Method: SM 9223 B 20 th ED Colilert®
Test Report Unique ID Number:	26-31060	PWS Number: 1270021

Laboratory Test No.	Water Test Location	City, State	Test Results (units)	Meets MDH and EPA Guidelines?		Date/Time Sample Collection	**Chlorine Residual (CL2) ppm
				Does	Does Not		
26-31058	Water Tower	Maple Plain, MN	Negative	X		7/11 1:45pm	5.18
26-31059	Maple Plain Apt	Maple Plain, MN	Negative	X		7/11 1:28pm	.10
26-31060	Bryantwood Apt	Maple Plain, MN	Negative	X		7/11 1:55pm	.08

Allowable Limits:

- Coliform Bacteria: Allowable Limit is NEGATIVE

Report authorized by:



Kathryn M. Engel, Laboratory Director

If applicable, Engel Water Testing Inc., followed sampling procedures as described in its Standard Operating Procedures and Quality Assurance Manual for Analyzing Drinking Water dated October 31, 2023 when sampling was done by this Laboratory personnel. The results listed within the report relate only to the samples received on the dates indicated. This report must not be reproduced, except in full, without the written approval from Engel Water Testing, Inc.

Appendix G

Public Notifications, Press Releases, and Public Communications

July 11–12, 2026 Water System Pressure Loss Event

Purpose of Appendix G

This appendix documents the public communications issued by the City of Maple Plain during the July 11–12, 2026 water pressure loss incident and precautionary boil water advisory.

The City utilized a layered communication strategy intended to maximize public awareness through direct notifications, website updates, social media communications, press releases, emergency alert systems, and coordination with public safety and regulatory agencies.

The communications included in this appendix demonstrate the City's efforts to provide timely information to residents, businesses, institutions, and visitors regarding the incident, required health precautions, restoration activities, laboratory testing, and eventual restoration of normal operations.

Public Communication Timeline

Saturday, July 11, 2026

Time	Communication
10:59 AM	Citywide Water Outage Notification
11:36 AM	Website and Facebook Boil Water Advisory
12:13 PM	Emergency Notification – Boil Water Advisory
12:32 PM	IPAWS Activation Requested
4:45 PM	Updated Boil Water Advisory Posted
5:52 PM	Follow-Up Press Release and Emergency Notification

Sunday, July 12, 2026

Time	Communication
4:19 PM	Boil Water Advisory Lifted

Communication No. 1

Citywide Water Outage Notification

Date: July 11, 2026

Time: 10:59 AM

Summary

The City informed residents that a water service disruption was occurring and that utility staff were actively responding to the situation.

The notification advised residents that crews were investigating the cause of the outage and additional information would be provided as it became available.

Purpose

- Notify residents of the developing outage.
 - Acknowledge service disruption.
 - Inform residents that response efforts were underway.
-

Communication No. 2

Website and Facebook Boil Water Advisory

Date: July 11, 2026

Time: 11:36 AM

Summary

The City posted a boil water advisory notice to its website and Facebook page.

The communication informed residents that a loss of system pressure had occurred and that a precautionary boil water advisory would be issued. Residents were advised to monitor official City communication channels for updates.

Purpose

- Provide an early public warning.
 - Direct residents to official communication channels.
 - Prepare residents for the formal advisory.
-

Communication No. 3

Emergency Notification – Drinking Water Boil Water Advisory

Date: July 11, 2026

Time: 12:13 PM

Notification Issued

DRINKING WATER – BOIL WATER ADVISORY

Maple Plain water may be contaminated due to loss of pressure.

Residents were instructed to:

- Not drink tap water without first boiling it.
- Bring water to a rolling boil for at least one minute.
- Use boiled or bottled water for:
 - Drinking.
 - Brushing teeth.
 - Making ice.
 - Food preparation.

The advisory identified the cause of the incident as a communication failure between the Water Tower and Water Treatment Facility and advised residents that water quality testing would be completed before the advisory could be removed. [SiteTurn46search1](#)

Purpose

- Meet MDH public notification requirements.
- Protect public health.
- Inform residents of required precautions.

Communication No. 4

IPAWS Activation Request

Date: July 11, 2026

Time: 12:32 PM

Summary

At the request of the City, West Hennepin Public Safety coordinated with Hennepin County Dispatch to initiate an Integrated Public Alert and Warning System (IPAWS) notification related to the boil water advisory.

Participating Agencies

- City of Maple Plain
- West Hennepin Public Safety
- Hennepin County Dispatch

Purpose

- Extend notification beyond emergency-alert subscribers.
 - Reach visitors and temporary occupants.
 - Provide broad public awareness throughout the affected area.
-

Communication No. 5

Updated Boil Water Advisory

Date: July 11, 2026

Time: 4:45 PM

Summary

An updated advisory was posted to the City website and Facebook page.

The communication informed residents that:

- Water pressure had been restored.
- The boil water advisory remained in effect.
- Laboratory testing was underway.
- Residents should continue following advisory instructions until further notice.

Purpose

- Provide status updates.
 - Maintain public awareness.
 - Reinforce public health precautions.
-

Communication No. 6

Follow-Up Press Release and Emergency Notification

Date: July 11, 2026

Time: 5:52 PM

Title

City of Maple Plain Issues Precautionary Boil Water Advisory Following Water System Pressure Loss

Summary

The press release provided a detailed explanation of:

- The cause of the incident.
- Restoration of water service.
- Public health considerations.
- Laboratory testing procedures.
- Corrective actions underway.
- Expected timeline for test results.

The release explained that water service and pressure had been restored; however, the boil water advisory would remain in effect until laboratory testing confirmed the safety of the water supply.

The release further explained that utility operators were:

- Reviewing communications systems.
- Reviewing alarm systems.
- Reviewing backup controls.
- Evaluating system redundancies.

Residents were encouraged to continue monitoring official City communication channels for updates.

Purpose

- Provide detailed public information.
- Increase transparency.
- Explain response and recovery activities.
- Reduce confusion and misinformation.

Communication No. 7

Drinking Water Problem Corrected – Boil Water Advisory Lifted

Date: July 12, 2026

Time: 4:19 PM

Notification Issued

MAPLE PLAIN DRINKING WATER IS SAFE

DRINKING WATER PROBLEM CORRECTED

Residents were informed that:

- The communication issue had been corrected.
- Water quality testing confirmed safe drinking water.
- The boil water advisory had ended.
- Normal water use could resume.
- Plumbing systems should be flushed before returning to normal use.

The notification advised residents that all bacteriological samples tested absent for coliform bacteria and confirmed the municipal water system met applicable drinking water standards.

Purpose

- Notify residents that the advisory had ended.
- Confirm water quality compliance.
- Provide instructions for returning to normal operations.

Communication Methods Utilized

During the incident, the City utilized multiple communication methods to maximize public awareness.

Direct Communications

- Emergency Notification System
- IPAWS emergency alerts

Digital Communications

- City website
- City Facebook page

Traditional Communications

- Press releases
- Media outreach
- Public safety coordination

Intergovernmental Communications

- Minnesota Department of Health
 - Minnesota Duty Officer
 - West Hennepin Public Safety
 - Hennepin County Dispatch
-

Public Communications Assessment

The City issued multiple notifications over the course of the incident, beginning with notice of the water outage, followed by issuance of a boil water advisory, multiple status updates, and a final notification announcing that the advisory had been lifted.

The communication strategy utilized:

- Multiple communication platforms.
- Multiple notification cycles.
- Regulatory coordination.
- Public safety coordination.
- Federal emergency alert systems.

The response demonstrated the value of maintaining several communication methods to ensure that residents could receive important information through a variety of channels.

The incident also highlighted the importance of maintaining continuity of communications during emergencies. Throughout the response, City Administration played a significant role in coordinating emergency notifications, public information releases, website updates, social media communications, communication with regulatory agencies, and communication with elected officials and response partners.

As a result of lessons learned during this incident, the City has begun developing a formal succession and continuity plan for emergency communications. The goal of the plan is to ensure that emergency notifications, public updates, media communications, regulatory communications, and resident outreach can continue without interruption in situations where City Administration is unavailable or otherwise unable to perform those duties.

The communication continuity plan is expected to identify:

- Primary and secondary communication coordinators.
- Emergency notification responsibilities.
- Website and social media administration procedures.
- Media communication protocols.
- Emergency contact lists.
- Communication authorization procedures.
- Continuity responsibilities during extended emergencies.

The City expects this effort to improve organizational resiliency, reduce reliance on any single individual, and ensure timely public communications during future emergency events.

Communications Lessons Learned

The incident identified several opportunities for continued improvement in public communications:

1. Continue expanding use of multiple communication platforms.
2. Maintain strong coordination with public safety partners.
3. Continue utilizing IPAWS for broad community notifications when appropriate.
4. Streamline boil water advisory and emergency messaging templates.
5. Improve public education regarding emergency notification enrollment.
6. Implement a formal emergency communications succession plan.
7. Regularly review communication procedures as part of emergency preparedness planning.

These lessons learned have been incorporated into the corrective actions and policy recommendations identified elsewhere in this report.

Appendix G Conclusion

The City of Maple Plain utilized a comprehensive public communication strategy during the July 2026 water pressure loss incident. Through emergency notifications, website updates, social media communications, press releases, public safety coordination, and IPAWS emergency alerts, the City provided residents and businesses with information regarding the outage, boil water advisory requirements, restoration activities, laboratory testing results, and eventual lifting of the advisory.

The incident also highlighted the importance of organizational continuity in emergency communications. The City has since begun developing a formal communications succession and continuity plan to ensure critical public information functions can continue during future emergencies regardless of staff availability.

These communications were an essential component of protecting public health, maintaining public awareness, supporting regulatory compliance, and reinforcing public trust throughout the incident response and recovery process.