



**CRESTON
VALLEY**

TOWN of CRESTON

Corporate Policy

Policy #:	SER-001-001
Division:	Infrastructure Services
Effective Date:	May 26, 2026
Review Period:	Annual

Policy Title: Water Utility – Reliability – Level of Service Policy

Purpose & Scope

This policy defines the Town of Creston's expected level of service for safe water, reliability, outage communication, and public notification. It ensures consistent, transparent, and measurable service standards aligned with Council direction and the corporate LOS framework that emphasizes reliability, responsiveness, and clarity for residents.

This policy applies to:

- All treated water delivered through the municipal distribution system and reservoirs;
- Routine maintenance, planned outages, emergency interruptions, and public notifications;
- Infrastructure Services, Corporate Communications, and Emergency Management staff.

Definitions

Boil Water Notice (BWN): A public notification requiring water to be boiled before use due to potential contamination.

Distribution System: Network of pipes, valves, hydrants, and appurtenances delivering water to users.

Notice: Any public information update issued via Town website, alerting system, or other communication channels.

Planned Outage: A scheduled service interruption required for maintenance, repairs, or capital work.

Potable Water: Water that meets provincial drinking water quality standards.

Unplanned Outage: A service interruption caused by breakage, equipment failure, or unforeseen conditions.

Water Quality Advisory (WQA): A public notification used in situations where the public health threat is modest, and actions can be taken to reduce the risks by ways other than requiring a boil water notice or do not use water notice.

Water Quality Parameter: A measurable indicator (e.g., turbidity, chlorine residual) used to confirm water is safe to drink.

Service Statement (what residents receive, in plain language)

Residents can expect the Town to:

- Provide reliable, safe drinking water with minimal service interruptions;
- Supply water at a pressure adequate for normal household needs and fire protection requirements;
- Notify residents promptly when outages or water quality concerns occur and give estimated restoration times;

- Provide clear instructions during boil-water notices or emergency water situations;
- Maintain and monitor water quality in accordance with regulatory standards;

Performance Targets (3-7 KPIs; with exact definitions)

KPIs follow the Creston Service Excellence Initiative (CSEI) standard: clear, measurable, understandable.

KPI 1 — Water Service Reliability

Target: ≥ 99.5% annual water system availability to connected users.

Definition: Percentage of time drinking water service is available to all connected users (annually + 3-year trend), excluding planned outages.

KPI 2 - Water Quality Compliance

Target: ≥ 99% water quality test results are within regulatory standards for drinking water.

KPI 3 — Water Quality Assurance

Target: ≥95% regulatory sampling completed on schedule.

Definition: Percentage of mandated water quality samples collected, analyzed, and reported within required timeframes, as defined by regulations.

KPI 4 — Planned Outage Notification Timeliness

Target: Public notice issued ≥ 24 hours before any planned outage.

Definition: Time between public notification and the start of a planned water service interruption.

KPI 5 — Unplanned Outage Notice

Target: Public notice issued ≤ 60 minutes of reported the outage.

Definition: Time from confirmed water service disruption to public communication with estimated time of repair.

KPI 6 — Boil Water Notice Communication

Target: 100% of Boil Water Notice communicated ≤ 60 minutes.

Definition: The time between water quality test results that are below regulatory drinking water standard and the Boil Water Notice being issued.

Measurement & Data Sources (systems, owners, frequency)

KPI	System / Source	Owner	Frequency
Water Reliability	SCADA logs; outage records	Utilities Superintendent	Monthly
Water Quality	Internal & third-party lab data	Utilities Superintendent	Weekly
Water Quality Assurance	Internal lab data collection record	Utilities Operator	Weekly / Biannual

KPI	System / Source	Owner	Frequency
Planned Outage Notice Time	Infrastructure Reporting Log	Utilities Superintendent/PW Office Clerk	Per event
Unplanned Outage Notice	Infrastructure Reporting Log	Utilities Superintendent/PW Office Clerk	Per event
BWN Communication	Interior Health advisories; lab results	Utilities Superintendent/Emergency Management Coordinator/Communications	Per event

Variance & Risk Tolerance (how/when LOS flexes; escalation & comms)

Following corporate variance rules where LOS may flex due to circumstances.

LOS may temporarily vary due to:

- Major water main breaks or infrastructure failures;
- Source water contamination events;
- Staffing shortages or supply chain delays;
- Extreme weather events affecting infrastructure.

Flex Protocol:

- An on-duty supervisor assesses operational constraints;
- Director of Infrastructure Services authorizes LOS variance;
- Emergency Management Coordinator notified of events when infrastructure fails or extreme weather events threaten water quality or infrastructure affecting potential loss of service to three or more Town properties or one critical/priority customer;
- CAO notified for events exceeding 24 hours;
- Communications Coordinator issues a public update when standard LOS cannot be met.

Roles & Responsibilities (Council/CAO/Director/Managers)

Based on structure and clarity used across municipal LOS policies.

Council

- Approves LOS policy and major service-level changes;
- Receives quarterly performance reports.

CAO

- Ensures compliance and adequate resourcing;
- Supports emergency or high-risk decisions.

Director of Infrastructure Services

- Oversees water utility operations and service-level adherence;
- Approves variance and escalations.

Public Works Manager / Utilities Team

- Conducts maintenance, testing, and outage response;
- Ensures accurate record-keeping for KPIs.

Communications Coordinator

- Issues public notices (planned, unplanned, and BWN's, WQA's);
- Maintains website and alerting system updates.

Emergency Management Coordinator

- Assists during major disruptions of service;
- Assists with BWNs or contamination events;
- Coordinates multi-agency communication.

Reporting (monthly internal; quarterly Council; annual public)**Monthly (Internal Ops Dashboard)**

- KPI dashboard (uptime, outages, notices, water quality).

Quarterly (Council)

- Reliability trends, outage summaries, compliance status.

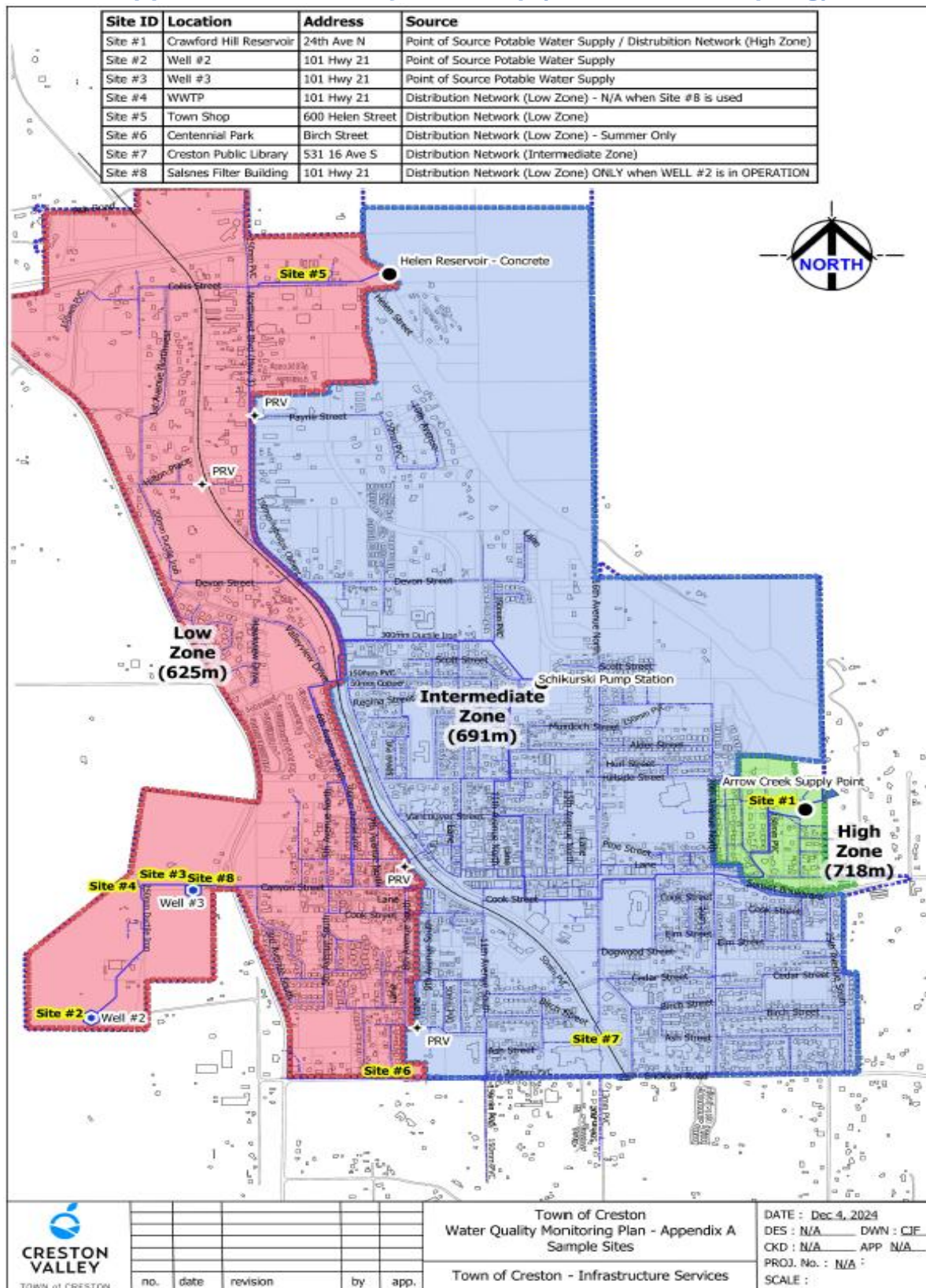
Annual (Public)

- Summary of system reliability, major events, improvements.

Continuous Improvement (how targets evolve; lessons learned)

- Review KPIs annually to ensure relevance and accuracy;
- Conduct post-incident reviews after major outages or contamination concerns;
- Update procedures based on lessons learned and regulatory changes;
- Incorporate asset management data into upgrades and capital planning.

Appendix A: Water System Map (zones, site sampling)



Appendix B: Water Quality Sampling Sites

Sampling Sites

Sample Site Identification	
Site 1 - Crawford Hill Reservoir	Point of Source Potable Water Supply/ Distribution Network (High Zone)
Site 2 - Well 2	Point of Source Potable Water Supply
Site 3 - Well 3	Point of Source Potable Water Supply
Site 4 - WWTP (Wastewater Treatment Plant)	Representative Sites - Distribution Network Location (Low Zone)
Site 5 - Town Shop	Representative Sites - Distribution Network Location (Low Zone)
Site 6 - Centennial Park	Representative Sites - Distribution Network Location (Low Zone)
Site 7- Creston Public Library (531 16 Ave S)	Representative Sites - Distribution Network Location (Intermediate Zone)

Appendix C: Water Quality Sampling Parameters

KPI	System / Source	Owner	Frequency
Bacteriological	E.coli Total Coliform	All	Weekly
Chemical	Free Chlorine	Site #1 - Crawford Hill Site #2 - Well 2 Site #3 - Well 3 Sites #4 to #7 - Representative Sites	Daily Weekly Weekly Weekly
Physical	Turbidity	Site #1 - Crawford Hill Site #2 - Well 2	Daily Weekly
Disinfection by-products	Haloacetic Acids Trihalomethanes	Sites #4 to #7 - Representative Sites	Semi-annually
Metals	Copper, Iron, Lead, Zinc, etc	Site #1 - Crawford Hill Site #2 - Well 2 Site #3 - Well 3	Semi-annually
Volatile Organic Compounds	Benzene, Toluene, Bromoform Chloroform, other	Site #1 - Crawford Hill Site #2 - Well 2 Site #3 - Well 3	Semi-annually
Aesthetic	Taste & Odour	All Town Connections	Complaint Basis

Appendix D: Drinking Water Quality Regulatory Framework

1. Legislative framework (what actually drives the requirements)

For a municipality like Creston, the legal obligation comes primarily from:

► BC Drinking Water Protection Act & Regulation

- Requires water suppliers to:
 - Provide potable water
 - Conduct monitoring and testing
 - Use approved labs
 - Comply with operating permit conditions set by Interior Health's Drinking Water Officer

🔗 Direct link (BC Government drinking water quality):

- [BC Drinking Water Quality Overview](#)

2. Interior Health's role (what they require/oversee)

- Issues Operating Permits for municipal systems
- Sets site-specific sampling and monitoring requirements
- Reviews sampling results and enforces compliance
- Can require upgrades, additional sampling, or reporting

🔗 Direct link (IH guidance):

- [Drinking Water Providers & Operators – Interior Health](#)

Interior Health doesn't set "one-size" testing rules— **The Town's water permit and provincial regulation together define your exact testing program.**

3. Core testing requirements (what municipalities must do)

A. Mandatory microbiological testing

- Water must be tested for:
 - E. coli
 - Total coliforms
- Testing must be done by a provincially approved lab

B. Chemical and physical testing

- Required under provincial guidelines and permit conditions:
 - Metals (e.g., lead, arsenic)
 - Nitrates
 - Turbidity
 - Disinfection residuals (chlorine)
- Monitoring plans must define:
 - What to test
 - How often
 - Where to sample

C. Continuous operational monitoring

Typical requirements include:

- Chlorine residual monitoring
- Turbidity monitoring
- Pressure and system integrity monitoring

These are part of the **multi-barrier approach** to safe drinking water.

D. Reporting & notification requirements

Municipalities must:

- Immediately report health hazards or test failures
- Issue:
 - Boil water advisories
 - Water quality advisories
 - Do-not-use orders (if required)

4. Interior Health monitoring and public transparency tools

Interior Health maintains:

- Water sample databases
- Advisory tracking systems
- Public water advisories

Appendix E: Outage Communication Protocol

Communication is initiated when one or more of the following conditions occur:

1. **Planned Service Impacts**
 - Scheduled maintenance, capital works, or operational activities that may reduce service levels (e.g., pressure fluctuations, temporary shutdowns)
2. **Unplanned Service Variances**
 - Equipment failure, water quality exceedances, main breaks, power outages, or operational disruptions affecting supply, pressure, or quality.
3. **Environmental or System Risk**
 - Drought conditions, source water constraints, extreme weather, wildfire risk, or regulatory directives affecting system capacity or reliability.

Emergency Operations Centre will be notified of an issue in the following circumstances:

- A potential water interruption to any critical/priority customers.
- Any suspected water main break before excavation begins.
- Unplanned water outage to more than 15 residences.

Communication Channels

The following channels are used based on impact level and urgency:

- Town website (service alerts/water notices)
- Direct resident notification (door hangers, email lists, automated calls where applicable)
- Social media updates
- Public notices and signage

Key Messages

All communications must clearly address:

- What is happening
- Who is affected
- What residents should expect
- Actions residents may need to take
- Expected time of service restoration
- Where to find updates
- Contact information for inquiries

Appendix F: Critical / Priority Customers

- Creston Valley Hospital
- Swan Valley Lodge
- Crestview Village
- Kootenay River Secondary School
- ARES Elementary School
- Creston Education Centre
- Columbia Brewery
- Creston and District Community Complex
- Creston Valley Public Library
- Pealow's Independent Grocer
- Save on Foods