

	INTERLAKE WATER UTILITY POLICY	NO.	2021-04
	POLICY TITLE: LEAK DETECTION PROCEDURES	EFFECTIVE DATE:	July 14, 2016
		REVISION LETTER:	A
		FINAL APPROVAL	Resolution: 95-21

1.0 PURPOSE

- 1.1 To ensure that the **Interlake Water Utility Board**:
- a) Establishes procedures for the identification of water leaks within the natural environment.
 - b) Highlight strategies to reduce water loss for the Interlake Water Utility.
 - c) Educate consumers on how to visually detect water leaks in the natural environment.

2.0 DEPARTMENT(S) AFFECTED (SCOPE)

- 2.1 Department(s) Affected: **INTERLAKE WATER UTILITY OPERATIONS**

3.0 POLICY

- 3.1 **Policy Statement:**
- a) The Interlake Water Utility Board is a publicly owned and operated public utility created to provide safe drinking water to subscribers. The Utility has a fiduciary responsibility to maintain its infrastructure and monitor the product available for purchase: safe and reliable drinking water.
 - b) It is in the best interest of Interlake to reduce the amount of water loss through infrastructure leaks and breaks to ensure financial repayment for products provided.
 - c) Water loss can be actively reduced through the quick identification of water line leaks.
 - d) The Iffley-Hatherleigh Aquifer has finite water resources, and the sustainability of this natural resource is tied to ensuring water is consumed as efficiently as possible, and leaks are repaired quickly.
 - e) Leak detection is difficult, and visual signs may not be as evident as individuals expect. Water loss may remain below the surface and not be visually seen above ground.

4.0 DEFINITIONS

- 4.1 The following terms are defined as such but limited to:
- “Administrator”**: the individual appointed by the Interlake Water Utility Board for administering the procedures and policies of the public utility.
- “Consumer”**: shall mean the registered owner, purchaser, occupant or other person in charge of the land or building to which water is being supplied by Interlake, and in whose name a water billing account has been established.
- “Depressurization”**: where the integrity of water quality pressure has been compromised due to a breach in a distribution line.
- “Distribution Line, Local”**: the individual, smaller, water pipelines that are located within each sector of the Interlake water distribution system. This typically includes lines located in: West

Chatfield, Day’s Beach, Trevesa Beach, Summerfield Beach, and/or Cochin.

“Distribution Line, Main”: the main water pipeline that connects to all local distribution lines and the Water Treatment Plant.

“Distribution System”: the entire Interlake pipeline system that disperses water within the Interlake service area.

“Foreman”: the individual appointed by the Interlake Water Utility Board for the completing and monitoring the operations of the public utility.

“Interlake”: means the Interlake Water Utility corporation.

“Interlake Water Utility Board”: means the individuals appointed from the Resort Village of Cochin and the Rural Municipality of Meota No. 468 to represent each municipality on the decision-making board for the public utility.

“Meter”: shall mean the individual or compound water meter and all other equipment and instruments supplied and used by the Interlake Water Utility Board to calculate and registered the amount of water consumed relative to the land and buildings which the meter is designed to monitor.

“Water Security Agency”: the provincial agency responsible for the operation of the Water Treatment Plant.

“Water Treatment Plant”: the facility that chemically treats the intake water from the source well prior to distributing the water for private consumption through distribution lines.

5.0 RESPONSIBILITIES

- 5.1 The Administrator is responsible for ensuring compliance to this policy.
- 5.2 The Utility Board shall review all policies every three years for compliance and effectiveness of the policies.

6.0 IMPLEMENTATION

- 6.1 It is the responsibility of Interlake to repair all water systems, unless where alternative agreements have been passed by the Board (i.e., summer lines in Cochin).
- 6.2 Active maintenance is the most effective way to prevent water loss through infrastructure breaks or leaks.

Types of Leaks

- 6.3 Various types of infrastructure leaks occur, such as:
 - a) Service line leaks
 - b) Valve leaks
 - c) Supply line leaks
- 6.4 Causes of leaks can occur because of any number of factors:
 - a) Tampering of line infrastructure (unauthorized joints and connections into lines)
 - b) Material and composition of line infrastructure
 - c) Age of infrastructure
 - d) Joins intersections and rusting from age or stray electric currents from other underground utilities.
 - e) Quality of installation of distribution system components
 - f) Seasonal changes (spring thaw, and winter freezing), frost loads

- g) Human error
- h) Proximity and contact with other structures (i.e., fence posts)
- i) Traffic vibrations and pressure from vehicular traffic on shallow lines.
- j) Transient high-pressure events, such as opening and closing valves, or charging systems too quickly.

Visual Signs of Underground Leaks

- 6.5 There are various signs individuals can look for when it comes to water line leaks:
- a) Unusually wet spots in landscaped areas and/or water pooling on the ground surface.
 - b) An area that is green, moldy, soft, or mossy surrounded by drier conditions.
 - c) A notable drop in water pressure or flow volume inside a building.
 - d) A sudden problem with a rusty water, dirt, or air in the water supply line.
 - e) A portion of an irrigated area is suddenly brown, or dead, or dying when it used to be thriving.
 - f) Water pressure is too low to enable pop-up sprinkler heads.
 - g) Sink holes or potholes.
 - h) Uneven floor grade or leaning of structure when grades were previously solid.
 - i) Unexplained sudden increase in water usage, consistently high usage, or water use continually climbs at steadily increasing rates for several billing cycles.

Benefits of Prompt Leak Repair

- 6.6 It is in the best interest of the Interlake Water Utility to repair infrastructure breaks and leaks because:
- a) Improves operational efficiency
 - b) Lowers water system operational costs
 - c) Reduces potential for contamination of water
 - d) Extends lifecycles of facilities
 - e) Reduces potential property damage, and thereby water system liability
 - f) Reduces frequency of water outage events
 - g) Increase public relations
 - h) Decreases frequency of public notification for drinking water advisories

Resolving Potential Leaks

6.7 Should a leak be detected the individual shall contact the **Administrator**:

6.8 The contact information for the Interlake Water Utility Board is as follows:

Physical Office: 1006 Highway #4, Cochin, SK S0M 0L0
Mailing Address: Box 240, Cochin, SK S0M 0L0
Phone: (306) 386-3152
Email: interlakewater@sasktel.net

If calling after hours, a message manager will pick up the call, and the Administrator shall return the call when available.

- 6.9 **Administration** shall contact the **Foreman** for inspection of the property for proposed leaks and shall advise the **Administrator** should any specific contract work be required to fix the leak.
- 6.10 **Administration** shall inform the **Water Security Agency** representative of the potential leak and shall follow the procedures outlined in the *Emergency Procedures for Depressurization or Breach of Water Quality Policy*. Should additional precautions be required, **Administration** shall advise the public following the *Precautionary Water*

Advisory Contact Policy.

- 6.11 The **Administrator** shall maintain a register of all leaks within the Interlake water distribution network.
- 6.12 If conditions exist on private property a professional contractor selected from the list of approved contractors to work on the Interlake water distribution system needs to be hired to perform the investigation and complete all necessary repairs.
 - a) The **Contractor** is required to inform the **Administrator** of the situation and how it was resolved.
 - b) This information is compiled to contribute to Interlake’s asset management plan to determine future infrastructure priorities for the public utility.

Sudden Consumption Increases Noticed by Interlake

- 6.13 Should the **Foreman** collect an unusually high meter reading of water consumption, the **Foreman** shall consult with the **Administrator** to compare the readings with historical meter readings to evaluate whether this is typical for the property.
- 6.14 The **Administrator** shall communicate with the **Water Security Agency** representative to investigate whether a leak is occurring, and depressurization, by reviewing water flow meters at the Water Treatment Plant.
- 6.15 The **Administrator** shall provide notice in writing to the consumer of the highwater consumption rate and encourage the consumer to investigate the cause of the high rate.
- 6.16 Unless the consumer can demonstrate that the cause of the leak was the distribution line infrastructure, all costs associated with the invoicing for the high-water consumption rate, shall be paid for, in full, by the consumer.

7.0 DOCUMENT APPROVAL

ROLE	POSITION	NAME OF THE APPROVER	DATE APPROVED
Author	Administrator	Public Utility Board – Resolution 82/2016	July 14, 2016
Final Approver	Public Utility Board	RESOLUTION: 95-21	Sept 22, 2021

8.0 REVISION HISTORY

EFFECTIVE DATE	REVISION LETTER	DOCUMENT AUTHOR	DESCRIPTION OF CHANGE
September 16, 2021	A	Northbound Planning	Update with new contact information, and additional prevention procedures.