

Report

Date

August 12, 2025

File:

Subject

Quamichan Park Road Water Main Replacement (Jaynes Road to Somenos Creek)

PURPOSE

To request authorization to add a capital project to the 2025 Financial Plan with an estimated budget of \$630,000 to replace approximately 230 m of Asbestos Cement (AC) water main between Jaynes Road and Somenos Creek and to abandon another 80 m of AC water main between Murison Place and Quamichan Park Road.

BACKGROUND

On July 24, there was a water main break on Quamichan Park Road between Jaynes Road and Somenos Creek (Figure 1). There were also breaks on December 19, 2023, November 26, 2024, and June 11, 2025 (roughly seven weeks prior to the most recent break on July 24, 2025). The breaks occurring on November 26, 2024, June 11, 2025, and July 24, 2025, caused property damage. Pictures from the most recent break are provided in *Figure 2* through 5.

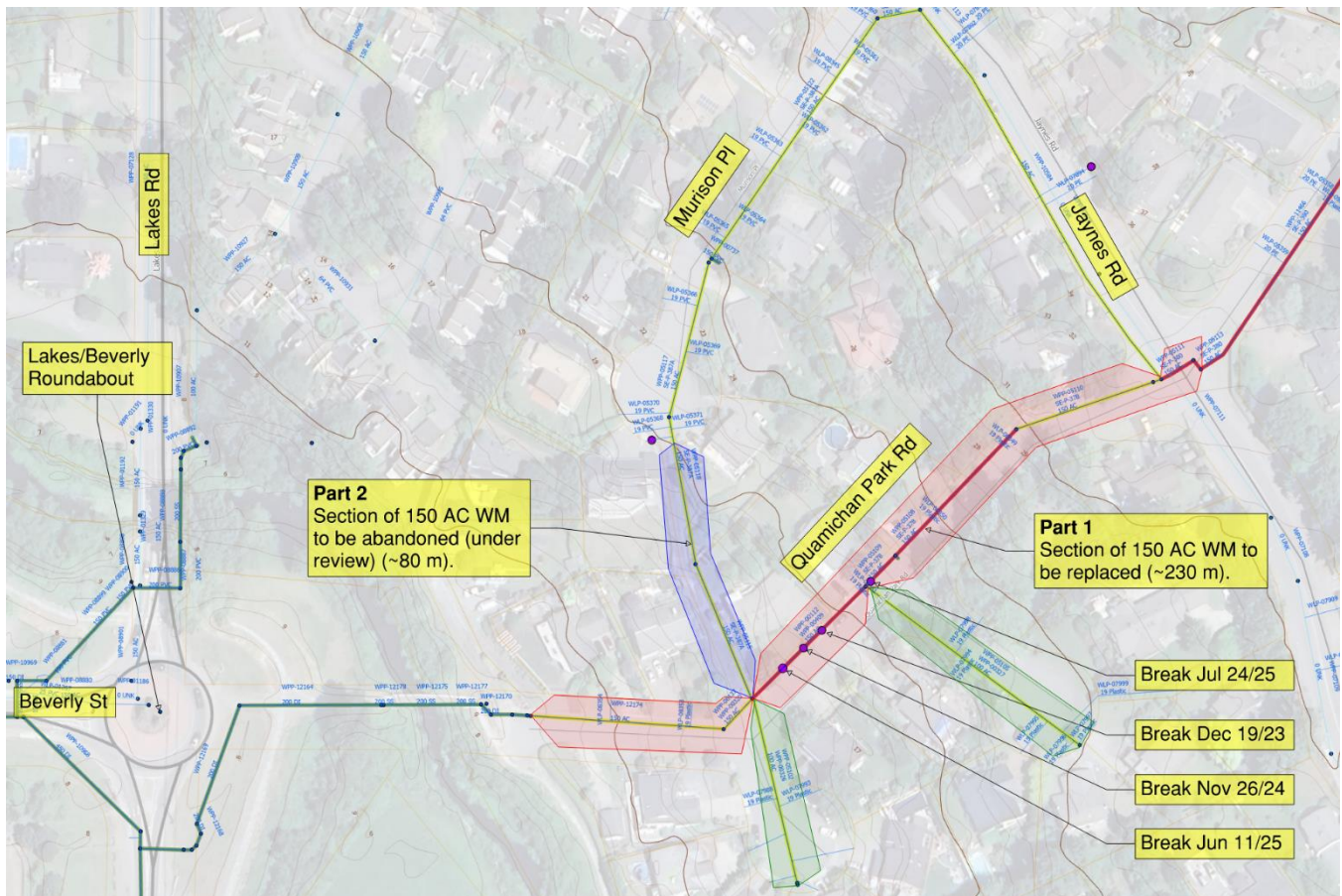


Figure 1 – Project location and break history.

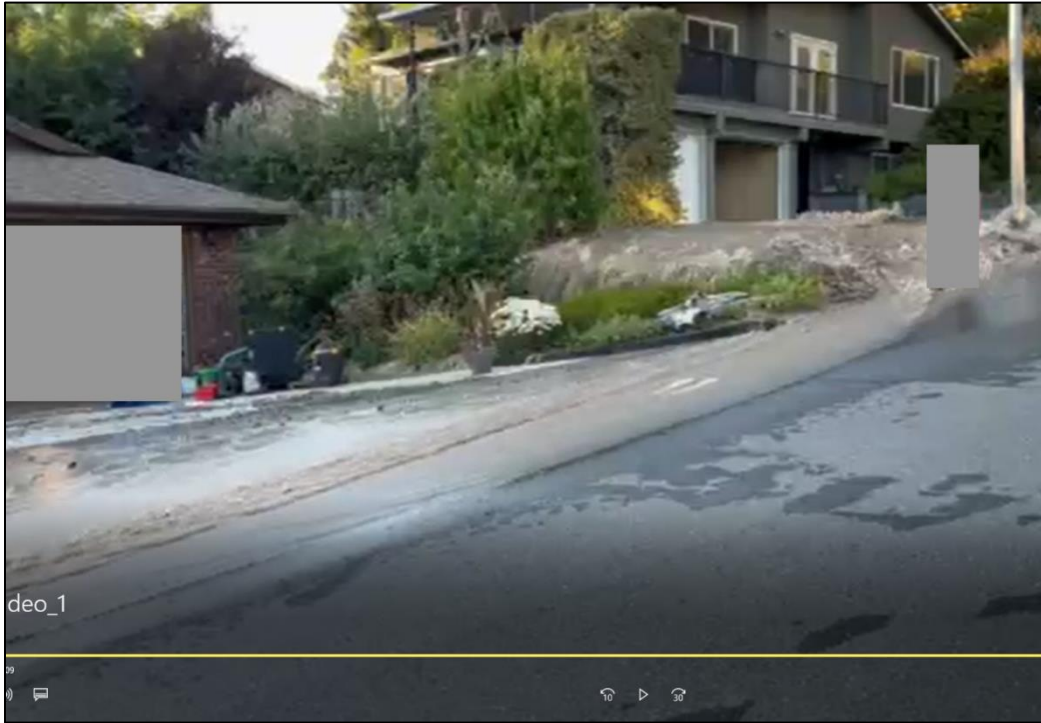


Figure 2 – Flooding from immediately downstream of water main break.



Figure 3 – Flooding downstream of water main break.



Figure 4 – Flooding downstream of water main break over retaining wall.



Figure 5 – Flooding downstream of water main break over retaining wall and into backyard.

The on-call duty foreman was advised of the water main break around 7:30 PM on July 24. Water was restored to residents on July 25 at 10:30 PM.

DISCUSSION

There is approximately 69 km of aging AC water mains in North Cowichan, with 52 km (75%) in the South End. The total replacement cost for all the AC water mains in the South End is estimated to be \$75,000,000. Most of the AC mains installed in the 1960s are nearing the end of their expected useful life (EUL) and will need to be replaced within the next 10 years.

The section of main where the breaks are occurring is located relatively close to the Boys Road Water Pump Station and is at a low elevation (Figure 6). This results in the mains in the area operating at a higher pressure. Due to this operational constraint, older AC water mains will have a higher chance of failure.

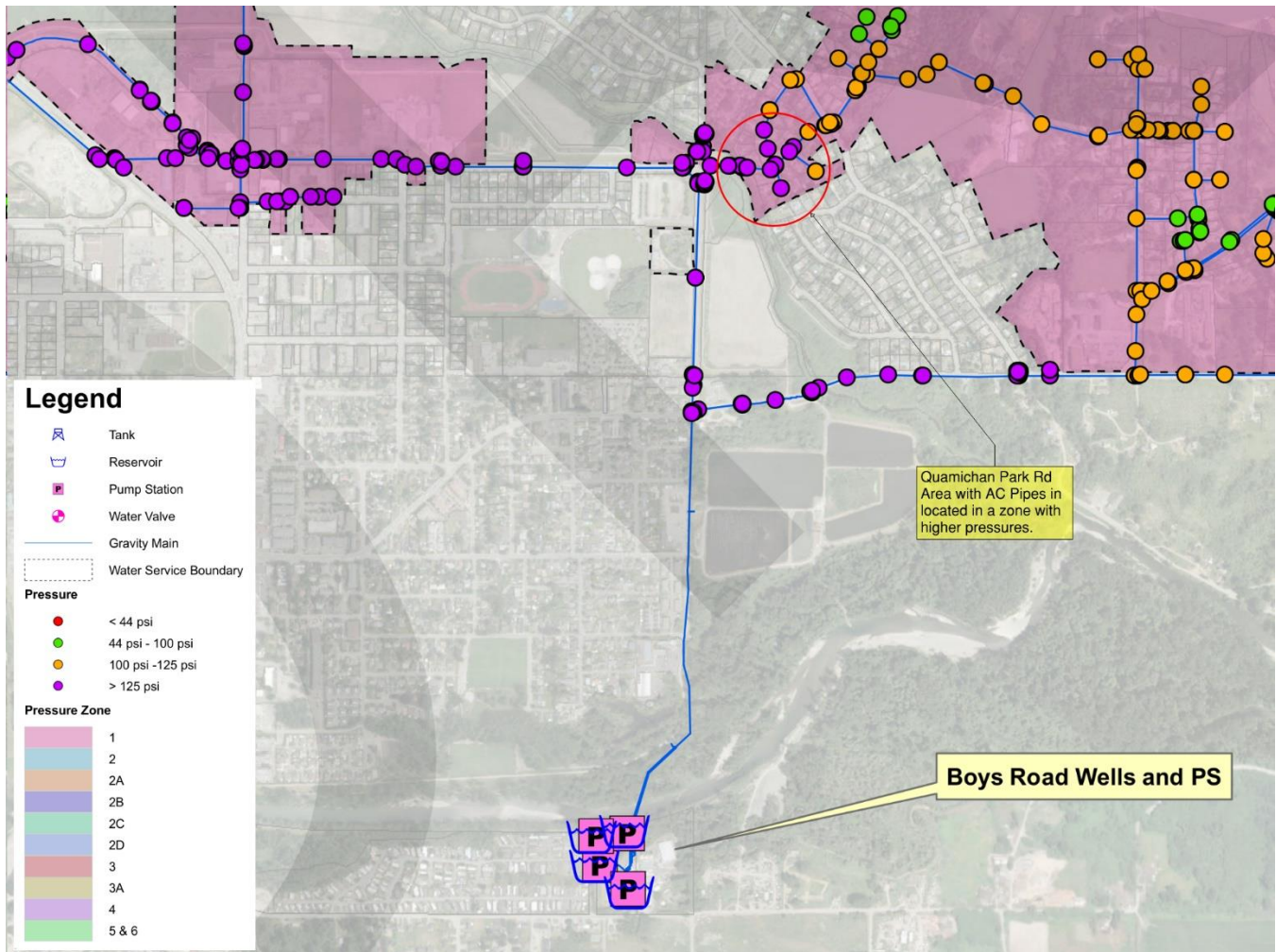


Figure 6 – Water pressure in the Quamichan Park Road area.

North Cowichan has been replacing AC trunk mains, including those along Lakes Road (2013) and Beverly Street (2013 and 2017). There are plans to replace the 350 mm AC trunk main along the Trans-Canada Highway from Beverly Street to Drinkwater Road with a new 500 mm AC trunk main in the next few years. The design is complete. Staff have applied for a grant that will provide \$3.1M (40% co-funding) to help offset the \$7.8M cost for the said project. In terms of local distribution, mains staff are using a combination of break data and life remaining to prioritize the replacement of old AC water mains. Quamichan Park Road (the water mains that are the subject of this report) and some other priority areas were scheduled for design and construction in the next couple of years (budget permitting).

Staff recommend that the water mains encompassed by the red and orange polygons (Figure 1) be replaced and abandoned, respectively. The water main encompassed by the two green polygons is a PVC pipe and does not need to be replaced. With the two most recent breaks (7 weeks apart), the Quamichan Park Road water main should be elevated in priority. This is further reinforced by the resulting property damage incurred by residents in the area.

Approximately 230 m of AC water main along Quamichan Park Road needs to be replaced (Part 1, pipes encompassed by the red polygons in Figure 1), and approximately 80 m of AC water main needs to be decommissioned between the end of Murison Place and Quamichan Lake Road (Part 2, pipes encompassed by the blue polygon in Figure 1). The water mains encompassed by the blue polygon would likely require the removal of fences and hedges, and replacing them would be expensive. Staff are having modelling done to determine if there would be sufficient fire flow for the homes along Murison Place if the water mains encompassed by the blue polygon were abandoned. If there is insufficient fire flow with the water main abandoned, then it will have to be replaced as well. The total cost, including an estimated contingency, is expected to be up to \$630,000. This cost allows for the replacement of 80 m of pipe encompassed by the blue polygon. Staff propose to use money currently in the 2025 budget to cover the costs of this work.

Staff have also reached out to residents who are anxious to know what North Cowichan's plans are to address the repeated breaks in this area. Residents have been advised that North Cowichan staff will be approaching Council to consider advancing a project to address the water main breaks in this area.

OPTIONS

1. (Recommended Option) THAT Council:

1. Authorizes the allocation of \$630,000 from the 2025 South End Water budget to:
 - Replace approximately 230 metres of water main along Quamichan Park Road (from Jaynes Road to Somenos Creek), and,
 - Decommission approximately 80 metres of water main between Murison Place and Quamichan Park Road.
2. Authorizes the Chief Administrative Officer to enter into a construction contract for up to \$630,000 to carry out the above works.

- This would allow staff to complete the design and have the said works constructed in the current budget year.
- This would significantly reduce the probability of another water main break along Quamichan Park Road.

2. THAT Council does not authorize the allocation of funds for this project.

- This would not permit staff to proceed with the design and construction of the said works in the current budget year. This could result in additional breaks along this water main occurring.
- Staff would prioritize this project for design and construction in 2026.

IMPLICATIONS

While we are only halfway through 2025, staff believe that there are sufficient funds within the 2025 South End water budget to complete this project within the current budget year, given this project's limited scope (only the most problematic 230 m of pipe will be replaced at this time). Not approving the allocation of the budget to this project will result in a significant risk of further breaks occurring.

RECOMMENDATION

THAT Council:

1. Authorizes the allocation of \$630,000 from the 2025 South End Water budget to:
 - Replace approximately 230 metres of water main along Quamichan Park Road (from Jaynes Road to Somenos Creek), and,
 - Decommission approximately 80 metres of water main between Murison Place and Quamichan Park Road.
2. Authorizes the Chief Administrative Officer to enter into a construction contract for up to \$630,000 to carry out the above works.

Report prepared by:



Clay Reitsma, M.Eng., P.Eng.
Director, Engineering

Report reviewed by:



George Farkas
General Manager, Planning, Development and
Community Services

Approved to be forwarded to Council:



Bill Corsan
Acting Chief Administrative Officer