

Type	Committee Recommendation		
Title	Infrastructure Project Recommendations to Council for 2025 Budget		
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Issued for	CotW Mtg December 03 and RCM December 17, 2024		

Recommendation:

THAT Council consider the Committee's Infrastructure project recommendations below for Budget 2025.

Key Information:

The Infrastructure Committee reviewed Public Works's extensive list of infrastructure projects for 2025 at its 28 November meeting, and based on safety, life expectancy, need and budget criteria, settled on recommending the following projects for 2025.

1. Top priority is to make a start on replacing remaining undersized, cast iron and asbestos cement water distribution network in bite-size pieces.

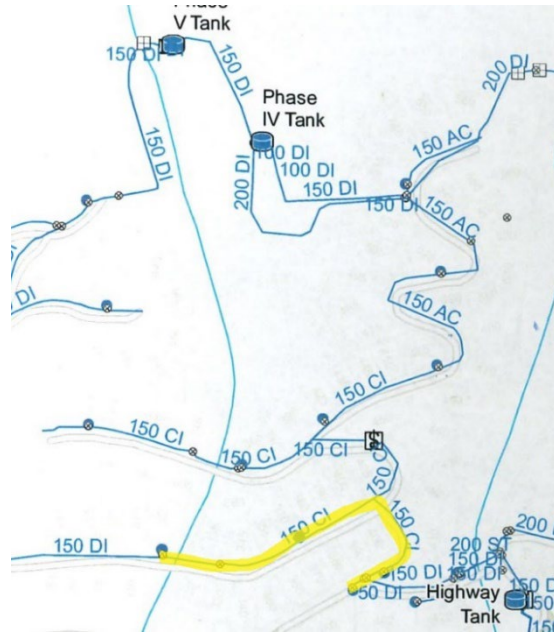
In the previous budget cycle the Committee had recommended two separate watermain projects; namely \$225,000 for design and replacement of the 90 m of 8" cast iron water main on Creekview Place (green adjacent) and \$100,000 for the design for the replacement of the 6" cast iron water main along Highview Place (purple adjacent), which were both deferred to future years.



But CUBB.3, replacement of 400 m of the 150 mm (6") cast iron Bayview watermain from Alberta to the store (yellow in the diagram overleaf) at an estimated cost of \$1,300,000¹ has emerged as a higher priority need due to recent discovery of severe rust nodules, with resultant reduced potable- and fire-flow to three strata-owned multi-family facilities of 5 residences each, 22 single family properties, the Public Safety Building and the municipal Office. As to funding this large spend, last year Council funded \$200,000 in drought

¹ \$100,000 setup including design, 400 m @ \$3000/m for main, drain, road and Alberta Ck bridge crossing.

emergency reserve that was not required, and \$900,000 for water contingency. \$100,000 had been funded in 2021 for similar purposes, unspent. 2024's ASAP water contingency project will cost approx. \$700,000, leaving a funded \$500,000 available for projects similar to those the taxpayer expected originally. The Committee recommends that these funds be dedicated to CUBB.3, leaving \$800,000 to fund. In the alternative, Council may wish to reconsider the smaller Creekview and Highview projects.



2. [\$180,000] was funded in 2024 for bridge end repairs; three will be done in 2024 at a cost of \$95,000, leaving \$73,333 $([180,000] - 95,000 + 95,000/3 \times 5)$ to fund for the remaining five bridges. The salient issue with bridge ends is pooling of water, especially salty water, along their end joints to the road grade, and the sooner they are addressed, the better. These funding levels assume all that will be required is some remediation of concrete at the very ends of the decks, replacement of asphalt, and milling of the approaches to eliminate pooling.
3. Staff have requested \$300,000 total for Project SCORE (SCADA Operations Rework): \$205,000 has been funded through 2024, of which approx. \$115,000 has been spent (subject to expected spending actuals)² with \$95,000 required to top up the funding. Project SCORE will:
 - a. improve water and wastewater system uptimes
 - b. allow chlorine injection to be reduced yet still accommodate our system's unique spikes in demand
 - c. ground intake pipes at both plants against lightning strike
 - d. add a powered actuator to Mountain control valve to allow it to serve its intended purpose

² Replacement of copper data lines with fibreoptic at Harvey Plant, Mag Plant, WWTP and Yard including Wi-Fi; cameras at Oceanview pumphouse, Mag Intake, Harvey Plant, replace 6-channel voice alarm dialler with cloud alarm platform to provide unlimited channels, obsoleting the PLC panel at the Works Yard; realtime chlorine and pH at KG watermain endpoint; MAGIIC.1: power and data to Mag Intake for realtime turbidity and UVT as part of ENSURE (plus floodlighting, weather station); zone flow metering at PRV 10 (Brunswick); motor health monitoring for WWTP RBC and ASAP pump; display of further parameters available on SCADA platform and user interface improvements; Harvey and Mag creek flowrates to Flowworks and SCADA.

- e. improve our claim for continued filtration exemption by further addressing the water regulator's requirements to only take in on-specification water though installation of powered control valves at both main intakes
 - f. introduce zone metering with a long-term view to remediating unintended consumption so far as to not require Magnesia supply even in summer.
4. The previously recommended reconstruction of the Magnesia Creek Intake, dubbed Project WHIRL (Weir Height/Inclination Realign), is now recommended to be deferred to await results from MAGIIC.
5. Provide pH adjustment to finished water to bring into compliance with the Guidelines for Canadian Drinking Water Quality. It is too late for the remaining cast-iron mains to now reduce the acidity of our 6.8 pH water, but with guidelines being to deliver 7.0 – 9.0 pH, this is a low-cost water quality issue for Lions Bay's lead-copper residential plumbing. A 2021 estimate indicated 2 dry soda ash feeders would total \$100,000. A less expensive option is to provide hydroxide alkalinity using a small positive displacement pump to inject liquid caustic soda). Current budget costing is being developed by the Committee, but \$200,000 for two plants is a good placeholder.

Options to Pursue Desired Result:

- (1) Staff to confirm unspent budget available from previous budgeting cycles for these items.
- (2) DoO to incorporate these recommendations into his Supplemental Budget Requests for 2025.
- (3) Council to consider these requests during the CotW (budget session) on 03 December 2024.
- (4) CotW recommendations to be presented to RCM on 17 December 2024 for approval on a case-by-case basis or in entirety.

Communication Plan: budget deliberations are open to the public..