Item 5.2

POTABLE WATER STUDY UPDATE

Municipality of Chester
NOVA SCOTIA

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Potable Water Study Update

- Capital Project Background
- Scope of Work
- Interim Findings
- Early Estimate of Costs
- Proposed Next Steps

Capital Project Background

- Two-year Project, started in 2025-2026 with a budget of $300,000.
- $102,841.40 through the Provincial Capital Assistance Program (PCAP), 50% of minimum eligible project costs of $205,642.80
- First phase of work awarded to Dillon Consulting.
  - Award of $132,021.64 for Potable Water Study
  - Exit 6 water supply exploration: $6,425.39
  - Watershed & flow measurement costs of $80,081.52 applied to 2024-25 PCAP grant with scope amended
- Remaining project budget $213,493.09
- Above budget numbers are net HST.

Scope of Work

- Background review and initial screening (completed);
- Bathymetric survey and drone aerial (completed);
- Watershed understanding and desktop hydrologic review (completed);
- Field program (In progress);
- Concept engineering study (In progress);
- Preliminary regulatory consultation (NSE, DNRR, DPW) (complete); and
- Regulatory liaison (ongoing).

Interim Findings

- Four lakes identified as potential sources: Vaughan's Lake, Bezanson Lake, Connaught Lake and Henry Lake. Henry Lake was selected for field monitoring, further analysis, and concept engineering.
- Three communities/general areas identified for servicing considerations: Western Shore, Chester Basin, and Chester.
- Projected population growth from 2030 to 2060 (1.8%) used for water demand, to be reviewed by staff.
- Typical lake water quality, no significant signs of contamination.
- Completion of remaining phase 1 work and regulatory liaison is required before a final water production yield is finalized but water supply to all three communities looks promising.

Early Estimate of Costs

- Construction: $48,491,750
- Engineering: $2,424,587.50
- Contingencies: $7,273,762.50
- Escalation Contingency (3 years): $4,849,179
- Subtotal: $6,303,927.50
- Further 20% Contingency: $17,607,855
- Subtotal: $75,647,130
- Our HST: $2,919,979
- Total: $78,567,109, say $78,600,000. (land costs to be determined)

Proposed Next Steps

- Continued water quality sampling and level monitoring: $30,000 to $60,000.
- Downstream environmental studies: $30,000 to $75,000
- Public consultation and developer survey: $30,000 to $60,000
- Infrastructure phasing review (based on population growth): $10,000 to $25,000
- Total Estimate: $100,000 to $220,000. This would include our HST and contingencies.

Summary and Recommendation

- The Henry Lake watershed appears to be a promising candidate for central potable water system for the communities of Western Shore, Chester Basin, and Chester. A bulk water station is also being considered which would assist other areas in the Municipality.
- Completion of Phase 1 Report by Dillon Consulting Limited will continue.
- Completion of "Proposed Next Steps" with Dillon Consulting Limited as an extension of the existing contract or as a new contract is recommended. All work to be within remaining project budget unless authorized by Council.

Questions