



Subject: SCADA Master Plan

Department: Infrastructure Services

Division: Public Works

Report #: INS-2025-004

Meeting Date: 2025-01-27

Recommendations

That report INS-2025-004, SCADA Master Plan be received; and

That the SCADA Master Plan Final Report be approved.

Overview

The purpose of this report is to provide a summary of the changes made to the SCADA (Supervisory Control and Data Acquisition) Master Plan document to finalize the report now titled SCADA Master Plan Final Report. The SCADA Master Plan Final Report provides detail of the various aspects of the Town's SCADA system and its current state, issues, and project costing over the next 7 years.

Background

SCADA is a comprehensive computer-based system used to monitor, control, and manage critical infrastructure and industrial processes in real-time. It enables our organization to remotely oversee and operate equipment, collect data from sensors and devices, and automate complex processes across various locations. By providing real time insights and automated control capabilities, SCADA helps us reduce costs, minimize human error, and respond swiftly to potential issues or emergencies. Currently, this technology is particularly crucial for managing our utilities, such as water and wastewater treatment and distribution, allowing us to maintain high standards of service to our community

The Draft of the SCADA Master Plan was presented to council at the December 2, 2024, council meeting, and direction was provided to finalize the SCADA Master Plan and report back to Council for approval.

No changes were made to the Analysis/Current Situation, Proposed Implementation Plan, and Key Benefits sections of the INS-2024-053 report, which was presented December 2, 2024. Adjustments were made to work package timelines and financial estimates to better align with the Town's procurement policy and resources available.

Analysis/Current Situation

Public Works staff have begun working on the Request for Proposal for selecting the new SCADA software and anticipate that this procurement will be completed by Q3 of 2025. After the selection of a new SCADA software, staff will start the procurement process for hiring a consultant to design the SCADA upgrade based on the software selected.

Corporate Implications

Budget numbers and timelines of the SCADA Master Plan Final Report were made to reflect those that were approved in the Corporate Implications section of the INS-2024-053 report. The changes in the SCADA Master Plan now match the Town's 2025 approved Capital Budget as follows:

Year	Description	Expense	Approval Status
2025	Consultant to start on SCADA standards	75,000	Approved 2025 Budget
2026	Design of Upgrades	505,000	2026-2034 Capital Plan
2027	Architecture and Pilot Site Upgrades	2,745,000	2026-2034 Capital Plan
		402,163	Approved Carryforward
	Filter PLC Project	375,000	Approved Carryforward
2028	Remaining Site Upgrades	1,195,000	2026-2034 Capital Plan
2031	System Modelling	300,000	2026-2034 Capital Plan
2032		150,000	2026-2034 Capital Plan
	Total Costs	5,747,163	

Funding Sources:	
Development Charges	823,600
Water Reserve	2,035,200
Wastewater Reserve	2,338,363
General Capital Reserve	550,000
Total Funding	5,747,163

As noted in report INS-2024-053, in addition to Capital costs, SCADA has regular ongoing operational costs that have already been built into the Water and Wastewater operating budgets. The total Water operating budget for 2025 SCADA related costs is

approximately \$460K including salaries and benefits and the total Wastewater operating budget for 2025 SCADA related costs is approximately \$380K including salaries and benefits. As staff work through the various stages of the upgrades, these operating costs will be better refined.

Conclusion

The SCADA Master Plan Final Report represents a comprehensive and finalized document that outlines the Town's current SCADA system, its challenges, and a strategic implementation plan for the next seven to ten years. With Council's approval, the report incorporates budget adjustments aligned with the Corporate Implications section of the INS-2024-053 report while maintaining the integrity of key analysis and planning sections. This finalized report serves as a critical roadmap for ensuring the reliability, efficiency, and sustainability of the Town's SCADA system, supporting informed decision-making and long-term infrastructure planning.

Strategic Alignment

Strategic Plan

Strategic Goal: Future-Readiness

Objective: Sustainability, ensuring financial viability.

Sustainable Neighbourhood Action Plan

Theme: Natural resources and environment.

Strategy: Protecting, improving and restoring the quality and quantity of water resources, continuing to provide access to safe drinking water that meets the needs of the community and enhancing the culture of water conservation and efficiency.

Notice Provisions

Not applicable.

Respectfully submitted,

Tim Kocialek, P.Eng., PMP
General Manager, Infrastructure Services

Reviewed by:

Ryan Ondusko, C.E.T., PMP
Manager, Public Works, Infrastructure
Services

Prepared by:

Courtney Offet, P.Eng.
SCADA Technologist, Infrastructure Services

Attachment(s): 1. SCADA Master Plan Final Report