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**Date** December 5, 2023 **Report No.** 2023-694  
**To** Mayor and Members of City Council  
**From** Inderjit Hans, P. Eng., PMP  
Commissioner of Public Works

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### 1.0 Type of Report

Consent Item  [X]  
Item For Consideration  [ ]

### 2.0 Topic **Water Meter Upgrade Project – Notice of Project Commencement [No Financial Impact]**

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### 3.0 Recommendation

THAT Report No. 2023-694 titled “Water Meter Upgrade Project – Notice of Project Commencement [No Financial Impact]” BE RECEIVED.

### 4.0 Executive Summary

The purpose of this report is to inform City Council that the City, through contractor, KTI Utility Services Inc. (KTI), is commencing the deployment phase of the Water Meter Upgrade Project (the “Project”) in January 2024. A [November 2021 report to council](#) provided an overview of the project scope, business drivers, benefits and budget. A [virtual Public Information Center \(PIC\)](#) was hosted in December 2021 to present preliminary project information to Brantford residents and business owners.

This Project is a significant step towards ensuring more accurate, efficient, and reliable water metering. The Project involves replacing outdated water meters

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with state-of-the-art technology and eliminating ‘manual reads’ and estimated billing, through the use of radio transmitters and a network of data collectors.

Participation in this Project is mandatory for all water utility customers including residential and commercial customers. There is no direct cost to the customer for participation in this project. Once completed, the Project will provide customers with access to hourly water usage and billing, alerts and notifications through the City’s web portal.

The Project will be deployed across the City over the next two years in seven (7) phases (Appendix A – City map shows the area of various phases), as follows:

- **Phase 1** – Initial Phase: Proof of Concept—Limited deployment to a mixture of Industrial, Commercial, Institutional and Residential customers within Ward 1 (Implementation in Q1 2024);
- **Phase 2** – Ward 1: excluding Brant County Service Area (Q1/Q2 2024);
- **Phase 3** – Ward 2 (Q2 2024);
- **Phase 4** – Ward 3 (Q1 2025);
- **Phase 5** – Ward 4 (Q3 2025);
- **Phase 6** – Ward 5 (Q4 2025); and
- **Phase 7** – Tutela Heights/Mount Pleasant: Brant County Service Area (Q1 2026).

To ensure compliance with the Project and keep City water customers well informed on the coming changes to City water meters, staff developed a detailed public communication plan in consultation with Communications staff and the project contractors. A combination of personalized contact letters, social media posts, a project website and Public Information Centers (PICs) will be utilized throughout the Project, as outlined in the communication plan.

Staff is committed to completing this Project with a high degree of compliance and the utmost care and consideration for our water customers. Every effort will be made to educate customers on the Project and encourage compliance, prior to taking enforcement measures under the Water Service Connection By-Law—Chapter 650 of the City of Brantford Municipal Code.

## 5.0 Purpose and Overview

The purpose of this report is to inform City Council that the City, through our contractor KTI Utility Services Inc. (KTI), is commencing the deployment phase of the Water Meter Upgrade Project (the “Project”) in January 2024.

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## 6.0 Background

### 6.1 Project Overview

In November 2021, [Report No. 2021-614 titled “Advanced Metering Infrastructure \(AMI\) and Water Meter Replacement Project Update”](#) provided a comprehensive overview of the water meter upgrade project objectives, benefits and business drivers. A [virtual Public Information Center \(PIC\)](#) meeting was hosted in December 2021 to present preliminary project information to Brantford residents and business owners.

This Project is a significant step towards ensuring more accurate, efficient, and reliable water metering. The Project involves replacing outdated water meters with state-of-the-art technology and eliminating ‘manual reads’ through the use of radio transmitters and a network of data collectors.

### 6.2 Installation Contractor

In April 2023, the City retained a contractor, KTI Utility Services Inc. (KTI), through the public tender process (RFP 2022-59) to supply and install water meters, radio transmitters and a network of data collectors across the City. In addition to implementing the Project, as a component of the public tender, KTI was also awarded a 5-year contract to perform reactive maintenance and new construction installations of water meters in the City; and a 5-year contract to maintain the network of data collectors.

### 6.3 Customer Benefits

This Project benefits the City by improving water management, but also provides several advantages to our customers, including:

- **Accurate Billing:** The new meters will ensure more accurate and equitable billing for residents, as they will accurately measure water consumption.
- **Leak Detection:** Advanced meters can help identify leaks and promptly send alerts, preventing water wastage and saving residents money.
- **Conservation:** Accurate data collection and usage monitoring tools provided through the City’s Utility Customer Portal will support our customer’s water conservation efforts and manage their water bills.
- **Environmental:** Reduced water waste and eliminating vehicle usage for manual meter reading contributes to our environmental sustainability goals.

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There is no direct cost to the customer for participating in this Project.

## **6.4 Water Service Connection Bylaw**

The City of Brantford Municipal Code, Chapter 650, also known as the Water Service Connection By-law (the “By-law”), regulates the use of, and connection to, the City's Water Distribution System and provides enforcement tools for the protection of the same. Administration of the City's Water Distribution System and the By-law is the responsibility of the Public Works Commission.

According to the By-law, the City retains ownership of all water meters, and components supplied by the City. All other private water service pipes and components are the responsibility of the property owner. The City is required to replace existing water meters, at the City's expense, where replacement is required due to normal wear and tear. Every property owner and occupant shall, at reasonable times and on reasonable notice, permit the City access to inspect, alter or replace a City water meter. If access to the water meter is obstructed or denied by the owner or occupant, the City may shut off or reduce the supply of water to the property.

## **7.0 Corporate Policy Context**

This water meter replacement project aligns with Council Priorities, 2021-2022, #7 Desired Outcome “The City is mitigating its environmental footprint and adapting to climate change” Tier 1 a) Priority “Demonstrate the City's commitment to environmental leadership through visible projects”.

This water meter replacement project aligns with Brantford's Corporate Climate Change Action Plan (CCAP) short-term goal to implement water conservation programs, as well as, the City's emissions reductions ethos, “reduce, improve, switch”.

This water meter replacement project aligns with Brantford's Vision “to be recognized as a fiscally responsible and well-managed City that provides efficient and effective government services to its customers and stakeholders while ensuring accessibility through a wide range of service channels, making it an easier and more positive experience to deal with the City”.

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## 8.0 Input From Other Sources

Input for this report has been provided by the project team, consisting of staff from the Environmental Services, Finance (Customer Service—Utilities) and Communications, Community Engagement & Customer Services Departments.

## 9.0 Analysis

### 9.1 Public Outreach Campaign

Environmental Services staff developed a detailed Public Communication Plan—See Appendix B—in consultation with Communications staff and the contractor to educate water customers on the project and upcoming changes to City water meters.

To ensure compliance with the project and to keep water customers well informed, the City will mail an introductory letter—Contact ‘0’, See Appendix C—to all water utility customers within each deployment phase, once the contractor is ready to move into their area. The introductory letter will include information about the Project objectives, introduce our contractor—KTI, and invite customers to attend a local Public Information Center (PIC).

A PIC will be held prior to each deployment phase outlined in section 9.2 of this report. Further details about the Project and the next steps to book an appointment will be presented to customers at the PIC. City Staff and our Contractor, KTI, will be available during the PIC to answer any questions water customers may have and to start booking appointments. Following the PIC, KTI will mail out a brochure to customers—Contact ‘1’, See Appendix D—providing instructions on how to book their appointment online or over the phone through KTI’s Customer Contact Centre. This same outreach approach will be followed for each of the Project deployment phases.

A [dedicated website](#) will serve as a comprehensive hub of information regarding the project. This website will include:

- **Project Overview:** A detailed explanation of the water meter upgrade initiative, its objectives, and anticipated benefits.
- **Frequently Asked Questions:** Common questions and answers to address the majority of residents' concerns.
- **Contact Information:** Easy access to a support team for further inquiries.

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- **Link to Book Appointment Online:** A 'Book Now' button will redirect customers to KTI's online appointment booking portal.
  - **Progress Updates:** Regularly updated news and progress reports to keep the community informed. As well to let residents know of the upcoming PICs.

A social media campaign, designed to reach a wider audience and foster community involvement, will be launched prior to the Initial Project phase. The social media campaign will utilize numerous social platforms and include:

- **Informative Posts:** Regular posts explaining the benefits of the water meter upgrade, installation process, and project milestones.
- **Opportunities for Community Engagement:** Encouraging residents to share their thoughts, concerns, and experiences related to the project using dedicated hashtags.
- **Event Promotion:** Announcements for public meetings, information sessions, and engagement opportunities.

Residents and businesses are encouraged to visit the water meter upgrade website regularly and follow our social media channels to stay informed, ask questions, and participate in the conversation about our City's water management improvements. The City's Customer Contact Center at (519)759-4150 can also be reached for information.

## 9.2 Project Timeline

The deployment phase of this Project will commence in January 2024 and is anticipated to be completed by early 2026. The Project will be deployed throughout the City's service territory in seven (7) phases, as follows:

- **Phase 1** – Initial Phase: Proof of Concept (Q1 2024);
- **Phase 2** – Ward 1: excluding Brant County Service Area (Q1/Q2 2024);
- **Phase 3** – Ward 2 (Q2 2024);
- **Phase 4** – Ward 3 (Q1 2025);
- **Phase 5** – Ward 4 (Q3 2025);
- **Phase 6** – Ward 5 (Q4 2025); and
- **Phase 7** – Tutela Heights/Mount Pleasant: Brant County Service Area (Q1 2026).

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### **9.3 Initial Phase: Proof of Concept**

The Initial Phase of this project (Proof of Concept) will start in January 2024. The Proof of Concept is a limited deployment to a mixture of Industrial, Commercial, Institutional and Residential customers within Ward 1. The intent of this Project phase is to test real-world functionality of the metering systems and troubleshoot any issues with the installation process. Staff will incorporate lessons learned during this Project phase, and all subsequent Project phases, into the public communications plan and installation processes to ensure continual improvement.

Introductory letters will be delivered to customers within the Proof of Concept area of the Project during the week of December 17, 2023. A PIC will be hosted at the Lions Park Arena in the Community Room on January 11, 2024 from 6pm to 8pm.

### **9.4 Project Compliance**

Replacement of aged water meters is necessary to provide accurate and reliable water billing to customers. The City will also be eliminating manual reading of the water meters upon completion of this Project. Therefore, participation in this Project is mandatory for all water customers. Failure to participate may result in enforcement measures under the Water Service Connection By-Law—Chapter 650 of the City of Brantford Municipal Code.

KTI will make five (5) contact attempts to book an appointment including, personalized letters, door tags and a final phone call before a service address will be marked as providing a “Soft Refusal” to comply. KTI will report service addresses marked “Soft Refusal” to City Project staff on a regular basis.

City staff will make three (3) additional contact attempts, including personalized letters, door tags and a final phone call and/or door knock, before a service address will be scheduled for enforcement measures under the By-law.

Water service interruption is a last-resort measure taken to ensure all residents benefit from reduced water wastage, enhanced billing accuracy and contribute to the overall sustainability of our community's water resources.

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## 10.0 Financial Implications

There are no financial implications associated with this report. Council approved funding of \$13,000,000 to complete the Water Meter Upgrade Project through the 2022 budget process. The Project is anticipated to be completed within the council approved budget.

## 11.0 Climate and Environmental Implications

Upon completion of the Project, the current manual touch read system will be replaced with an automated meter reading software. This will greatly reduce and/or eliminate the Greenhouse Gas (GHG) Emissions generated by the approximately 2,000 L/yr of gasoline is utilized to manually read meters on a now monthly basis, which translates to 4.63 T of CO<sub>2</sub>e/yr eliminated.

Additionally, this system will aid customers with early leak detection capabilities allowing for quick detection and repair resulting in improved water conservation. Water reduction reduces energy use at the Water Treatment Plant (production) and pumping stations (distribution); Wastewater Pumping Stations (collection); and the Wastewater Treatment Plant (treatment). The amount of energy reduction through this process is difficult to quantify and unknown at this time. Ongoing monitoring of water consumption and energy use will be performed following implementation of the Project.

## 12.0 Conclusion

The deployment phase of the Water Meter Upgrade Project will commence January 2024 and should be completed by early 2026. The Water Meter Upgrade Project uses technology that empowers residents and businesses to manage their water usage and reduce wastage. Better management of our precious water resources results in cost savings to the customers and to the City. The ability to provide more accurate and timely billing will lead to enhanced customer satisfaction. Reduction in overall energy usage will help the City in meeting the GHG emissions target. Successful and timely implementation of the Water Meter Upgrade Project is necessary to derive the comprehensive benefits of the project.



Inderjit Hans, P.Eng., PMP  
Commissioner of Public Works

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Patricia Mair, P.Eng., Environmental Services Technologist

Attachments:

Appendix A: Map – Project Deployment Phases

Appendix B: Public Communication Plan

Appendix C: Introductory Letter—Contact ‘0’

Appendix D: Brochure—Contact ‘1’

Copy to:

Patrick Telfer, Manager of Revenue  
Heather Carvalho, Manager of Communication & Community Engagement

In adopting this report, is a by-law or agreement required? If so, it should be referenced in the recommendation section.

By-law required  yes  no

Agreement(s) or other documents to be signed by Mayor and/or City Clerk  yes  no

Is the necessary by-law or agreement being sent concurrently to Council?  yes  no