THE MUNICIPALITY OF CHESTER

INFORMATION SHEET

DATE: October 3, 2024
SUBJECT: Chester Basin WWTP
STATUS: FOR PUBLIC DISTRIBUTION

Background

Part of the Municipality's preparations to meet anticipated growth is to assess current infrastructure and municipal services, prepare scopes of work for nine key initiatives, and apply for funding, all of which we have completed.

These actions are in alignment with:

- Our Strategic Priorities Framework 2021-24 (Environmental Stewardship and Infrastructure & Service Delivery).
- Our ongoing work to develop comprehensive and integrated asset management practices to ensure sustainable service delivery.
- Our 2022 Wastewater Service Study, which among other outcomes, assessed the climate resiliency of the Municipality's six wastewater systems, particularly in terms of design and siting mitigation of the increased risk and frequency of coastal flooding events (discussed at Council on November 30, 2023).
- Recommendations made by the Affordable Housing Commission. The commission noted the need "... for non-urban and rural municipalities to improve and expand local infrastructure and services required to attract investment in housing development."
- Discussions at the Council level concerning the Municipality's role in preparing for expected growth and needed sewer system expansion (Growth Plan discussed February 23, 2023; ICIP report discussed December 15, 2022).

Studies

- The 2022 Wastewater Service Study (EXP, 2022) assessed all six of the Municipality's wastewater systems for capacity, condition, and risk; the

impacts of climate change on service continuity and reliability; and options for sustainable service expansion.

- In the case of our Chester Basin system, the Service Study recommendation was to **replace** it as it is currently **non-compliant** with environmental regulations, **at risk** of coastal flooding, and is **at capacity** with only five connections.
- The Chester Basin Wastewater System Flood Risk Analysis Report (CBCL, 2023) also recommended replacement of the existing treatment plant.

Status of Project - PRELIMINARY

- Studies completed for area and current treatment system.
- Taking advantage of the existing outfall (reduces costs significantly), three locations were considered based on optimal conditions.
    - The first will share an outfall with the existing plant and is much closer than the other two. This being the most ideal, the Municipality purchased property well in advance to ensure availability in the event the preferred site could be used.
    - The second location is a community park property.
    - The third is the furthest away at the end of a private road and requires easements.
- **WE ARE HERE -** A conceptual design for a low-noise (similar to an air conditioning unit), enclosed (no open sewage lagoons), and odourless (special filters for outside vents) plant was written up based on Sequential Batch Reactor (SBR) technology. *NOTE: conceptual designs are for preliminary discussion with Council and the Provincial Government, not submission for approval or permitting or construction.*
- After discussions with Nova Scotia Environment and Climate Change (NSECC), a tender for detailed design will be issued. A detailed design is required for NSECC's review.
- **The regulatory process begins here:** NSECC will assess the submission that includes the detailed design, site selection report, wastewater studies, and other supporting information using an 'Environmental Assessment'. They will

then issue requirements that the Municipality must meet prior to approval. Requirements ***may*** include:

  - Changes to the system, including pipe size, outfall location, and plant location.
  - Testing, and/or data collection.
  - Public engagement.

- The project and NSECC's report return to Council for final decision before proceeding to construction.

Other Notes

- The cost for installing pipe is approximately $1,000 to $1,500/m or more. Each property considered further away from the first property would cost an additional $2,000 to $3,000/m more as a pipe would need to be placed to the other property and a dedicated clean effluent pipe placed coming back, eventually discharging to the current outfall.

- Our existing system in Chester Basin consists of a buried field bed, pump station, outfall and septic tanks. We plan to reuse the lift station where possible as well as the outfall. The new system is based on SBR technology and fully enclosed with no open lagoons. The ideal option is to maintain the 'residential' character of the property.

- Specifications will meet (or exceed) the Canadian Council of Ministers of the Environment (CCME) National Performance Standards and Effluent Discharge Objectives that will come into effect by 2030.

- Although detailed design work has not begun, the Municipality is looking at the potential for 650+/- connections.

- The Municipality's application for provincial funding was successful with an award of $2,252,902 toward this project through the Municipal Capital Growth Program. We continue to explore federal funding opportunities that could be applied to later phases of this project.