



Staff Report PW2024-015

Title of Report: PW2024-015 Dundalk 2024 Reserve Capacity
Department: Public Works
Branch: Water & Wastewater
Council Date: April 3, 2024

Recommendation:

Be it resolved that Council receive Staff Report PW2024-015 for information; and
That Council approve the recommendations for the endorsement of the report for the Dundalk Water and Sewage Treatment Reserve Capacity as prepared by Triton Engineering Services Ltd; and

That Council approves these reports to be forwarded to the Ministry of Environment, Conservation and Parks (MECP) District Office in Owen Sound and the Grey County Planning Department for their review and comment on the Dundalk Water and Sewage Treatment Reserve Capacity 2024 calculations.

Background:

Dundalk Drinking Water Reserve Capacity:

The Drinking Water Reserve Capacity Calculation is based on the Source (Well production) Capacity, which is 4,778 m³/d, Well D3 (1,180) + Well D4 (1,637) + Well D5 (1,961). The Firm (Available) Capacity, which is the system capacity with the largest water source, Well D5 out of service, is 2,817 m³/d, this corresponds with the Permit To Take Water (PTTW) for the Dundalk Water system. (attached Triton Table #1).

The 2024 uncommitted drinking water reserve capacity Equivalent Residential Units (ERU's) is 1,714 ERU's, the number of single-family homes that could be serviced by the drinking water system remaining capacity.

Dundalk Sewage Treatment Facility Reserve Capacity:

The Dundalk Sewage Treatment Reserve Capacity 2024 wastewater uncommitted reserve capacity has increased from 343 ERU's to 464 Equivalent Residential Units, (attached Triton Table #2). This increase in available reserve capacity is a result of the number of occupied units increasing at a rate greater than the flow rate increasing, and the review of the flow monitoring program supporting the calculations.

As with the Water Reserve Capacity calculation, the 2024 committed ERU's are 408 residential units, which includes future lots to be serviced in White Rose Phase 3, Flato Phases 7,8, 10 & 11, Flato Glenelg Phase 1, and Flato Block 75 Apartments, (attached Triton Table #3).

The Draft Plan Approved, uncommitted development is currently at 1,139 ERU's.

Staff Comments:

There were 228 residential units occupied into the Dundalk municipal systems in 2023. The 2023 maximum day drinking water taking was 1,180 m3.

The commissioning of the Dundalk Water Tower in September 2023, is reflected in the report, increasing the storage volume and is sufficient to service the committed developments.

Flow monitoring of sanitary sewer manholes flows was conducted in 2018 and early 2019 to establish typical new development flow rates. This data has been analyzed and evaluated to establish a new development per capita flow to be used in the current and future wastewater reserve capacity calculations annually.

Extraneous flows have also been identified in this report, which considers precipitation, temperature, average daily drinking water consumption and the average day sewage flow measured at the influent headworks of the sanitary sewage treatment system. Table 4 consists of this data and information indicating that the sanitary sewer system is subject to groundwater infiltration and sump pump connections, a significant contributor to extraneous flows.

The Victoria Street reconstruction project includes construction of stormwater infrastructure to property line for the availability of sump pump connection outlet.

Financial Implications:

The 2024 Capital Budget includes the tendering and construction for the Dundalk Lagoon and Wastewater Treatment System upgrades and will increase wastewater reserve capacity for future growth and development.

Staff are applying for grant funding opportunities for the wastewater treatment upgrades.

Communications & Strategic Plan Impact:

Priority: Operational Excellence

Goal: Goal 12: Ensure diligent maintenance and long-term sustainability of Township assets and infrastructure

Action Item: 12e) Finalize the water/wastewater servicing strategy for planned urban growth, revise as needed and incorporate updates into the Township capital plan

Concluding Comments:

Staff recommends that Council receive Staff Report PW2024-015 for information, and that Council approve the recommendations for the endorsement of the report for the 2024 Dundalk Water and Sewage Treatment Reserve Capacity as prepared by Triton Engineering Services Ltd, and that Council approves these reports to be forwarded to the Ministry of Environment, Conservation and Parks (MECP) District Office in Owen Sound and the Grey County Planning Department for their review and comment on the 2024 Dundalk Water and Sewage Treatment Reserve Capacity calculations.

Respectfully Submitted,

Dept. Head: *Original Signed By*
Jim Ellis, Public Works Manager

Treasurer Approval: *Original Signed By*
Taylor McMann, Treasurer

CAO Approval: *Original Signed By*
Dina Lundy, CAO

Attachments:

Attachment – Dundalk Water Supply and Sewage Treatment Systems 2024 Reserve Capacity Calculations