



Staff Report PW2023-021

Title of Report: PW2023-021 Dundalk 2023 Reserve Capacity
Department: Public Works
Branch: Water & Wastewater
Council Date: May 3, 2023

Recommendation:

Be it resolved that Council receive Staff Report PW2023-021 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 2023 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. (Attachment #1, Triton Table 1).

The 2023 uncommitted drinking water reserve capacity Equivalent Residential Units (ERU's) is 2,158 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 2023 wastewater uncommitted reserve capacity has increased from 182 ERU's to 343 Equivalent Residential Units, (attached Triton Table #2). This increase in reserve capacity is a result of reduced flows to the sewage treatment facility and the review of the flow monitoring program supporting the calculations.

As with the Water Reserve Capacity calculation, the 2023 committed ERU's are 562 residential units, which includes future lots to be serviced in White Rose Phases 1,2 & 3 and Flato Phases 3-8, 10 & 11, Flato Glenelg Phase 1, and Flato Block 75 Apartments, (attached Triton Table #3).

The Draft Plan Approved, uncommitted development is currently at 1,008 ERU's.

Staff Comments:

There were 178 residential units occupied into the Dundalk municipal systems in 2022. The 2022 maximum day drinking water taking was 1,008m³.

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.

Extraneous flows have also been identified in this year's 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. Township staff have identified some of these inflow connections and will be working towards addressing these and others soon, to be discharged into a stormwater system if available, or out letting onto ground for surface discharge.

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

Financial Implications:

The ongoing Environmental Assessment (EA) for the Dundalk wastewater treatment upgrades is included in the 2023 Capital Budget working towards addressing the increase of reserve capacity for future growth and development.

Communications & Community Action Plan Impact:

Goal 5 - Upgrading our "Hard Services"

Action 5 The residents and businesses of Southgate recognize our linear services - roads, bridges, water and sewer works, for example - to be a fundamental purpose of municipal government. This infrastructure needs to be serviceable and sustainable so that our businesses and communities can thrive and grow.

Strategic Initiatives: 5-B - The Township will have adopted a long-term asset management plan for the timely repair, replacement, and expansion of the Township's infrastructure, facilities, and other assets.

5-C - The Township will have increased wastewater treatment capacity in Dundalk to support growth.

Concluding Comments:

Staff recommends that Council receive Staff Report PW2023-021 for information, and that Council approve the recommendations for the endorsement of the report for the 2023 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 2023 Dundalk Water and Sewage Treatment Reserve Capacity calculations.

Respectfully Submitted,

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

Municipal Planner: *Original Signed By*
Clinton Stredwick, Planner

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

Attachments:

Attachment # 1 Triton Engineering Dundalk Water and Sewage Treatment Systems
2023 Reserve Capacity Calculation